A memoir on the diamond. Including its economic and political history / By John Murray.

A MEMOIR

ON

THE DIAMOND.

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ON

THE DIAMOND;

INCLUDING ITS ECONOMICAL AND POLITICAL HISTORY.

BY

JOHN MURRAY, F.S.A., F.L.S., F.H.S., F.G.S.

SECOND EDITION.

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THE materials which form this Memoir have been collected from diversified sources. Among the Works consulted, have been—'Jeffries on Diamonds,' &c., 'Mawe on Diamonds and Precious Stones,' and other Authors; but the greater part is obtained from Notes and Memoranda collected from many insulated channels of information, at various times. I am also much indebted to the personal communications of private friends, for some of my remarks connected with the history of individual Diamonds.

The Diamond is a gem altogether unique—itself alone, and separated from all other precious stones by peculiar and distinct characters, physical as well as chemical. 'Materiam superabit opus,' can-

not be said of the Diamond in any form. Yet, though thus distinguished, it has had few separate chroniclers, albeit it may well deserve a particular memoir. The private history and adventures of this imperial and princely gem have been often curious, and connected occasionally as they have been with state machinery, and the vicissitudes of private fortune, may sometimes "point a moral, or adorn a tale." My information has been drawn from the best authorities I have had access to; and only regret that the materials are so limited. Its natural, commercial, and economical history, forms a theme of singular and curious interest.

SECOND EDITION.

I HAVE nearly, if not entirely, doubled the materials in this new Edition, and added a second plate, illustrative of the subject: the interest of the Memoir on the Diamond is therefore now enhanced far beyond what could have been reasonably anticipated. In my selection of the materials, I have used the best discrimination in my power, and obtained, where I was able to do so, every information from original and authentic sources.

J. M.

Hull, August 1, 1839.

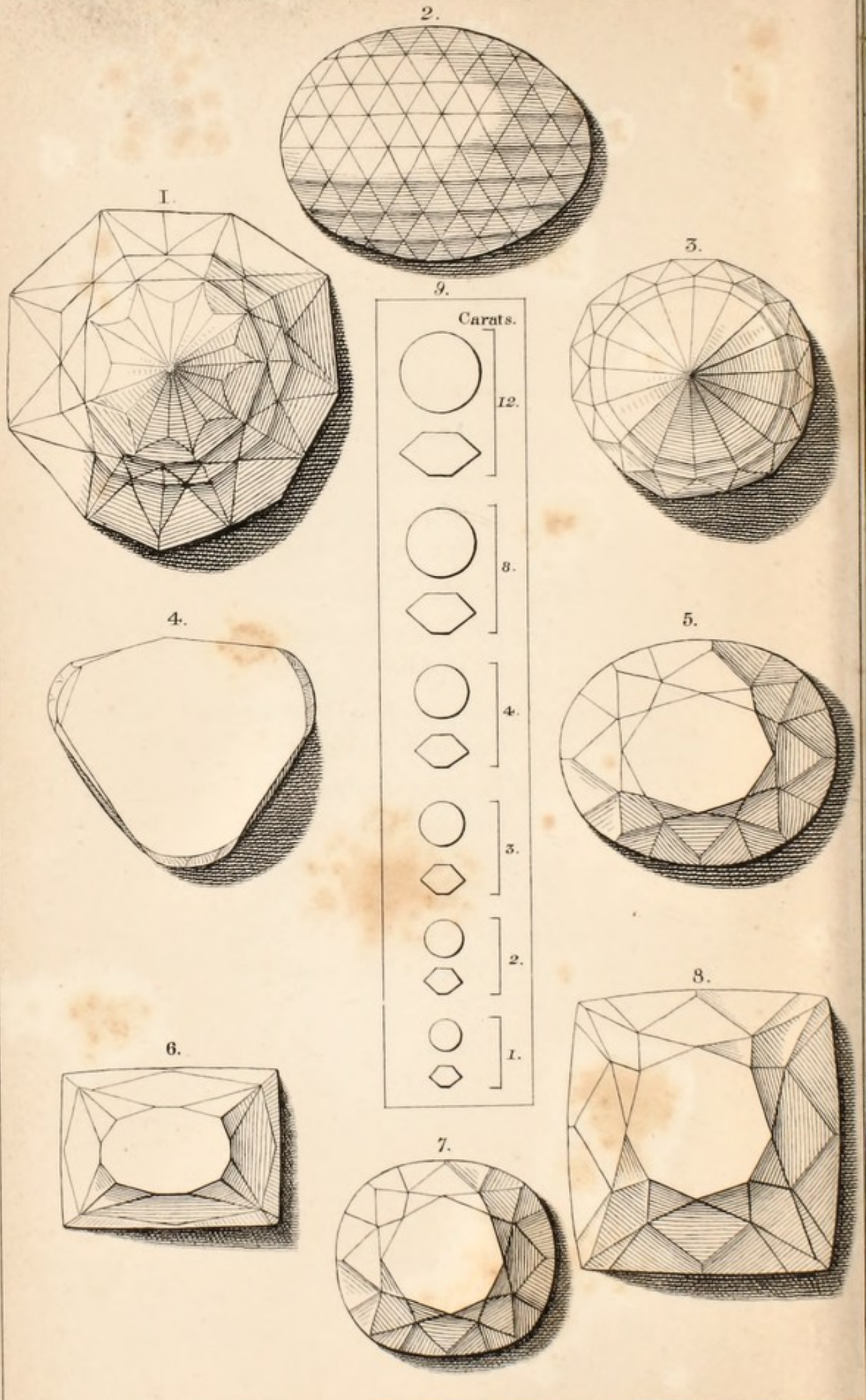

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PLATE I.

Fig. 1. Superficies of the Diamond of the Rajah of Mattan.

2. —— of the Austrian yellow Diamond.

3. —— of the Diamond of the Sceptre of Russia.

4. —— of the Nassuck Diamond, now the property of the Marquis of Westminster.

5. —— of the Piggott Diamond.

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8. —— of the "Regent Diamond," the largest and finest among the Crown Jewels of France.

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16. —— "Sea of Glory," ditto.

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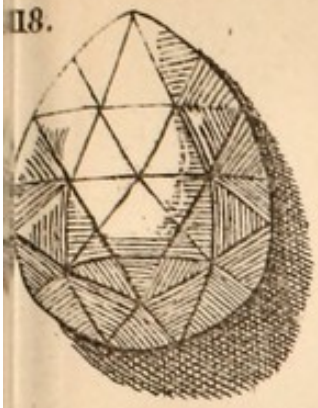
18. —— Sanci Diamond.

Note.—The Figures represent the Superficies of the several cut Diamonds, of their *real* size, copied from a series of correct and beautiful models, in the author's possession.

18.



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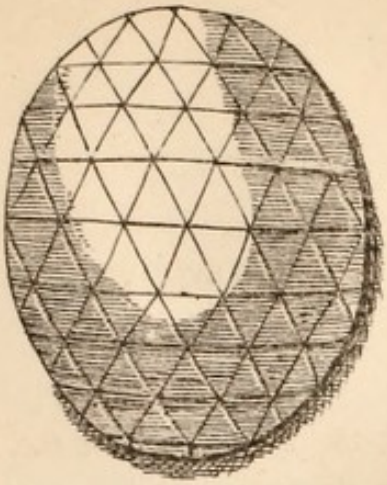

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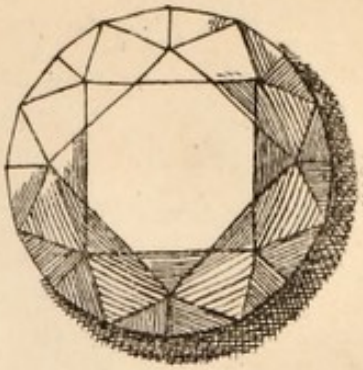

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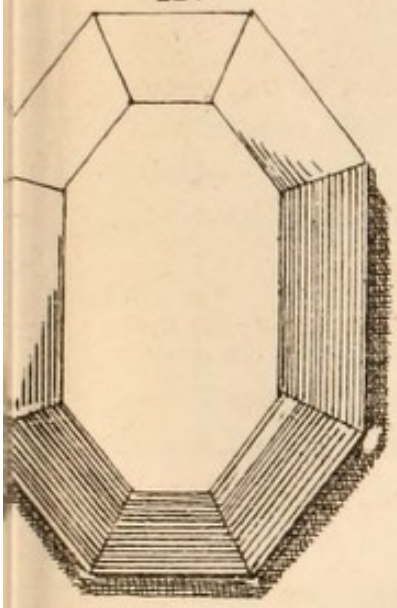

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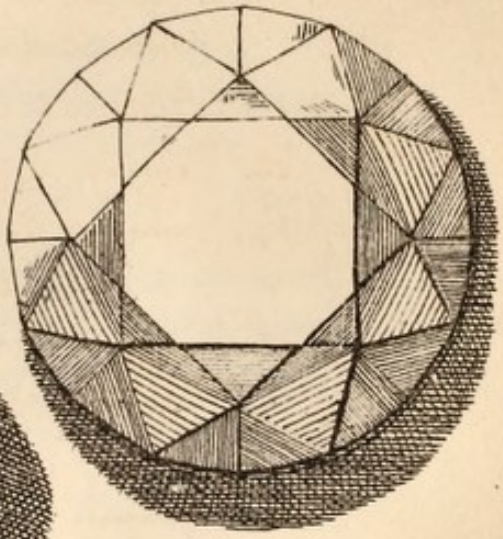

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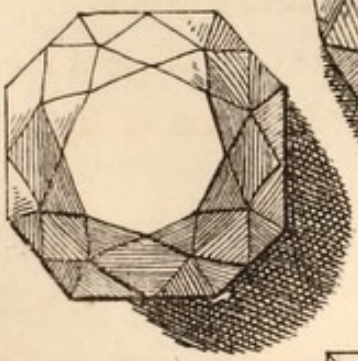

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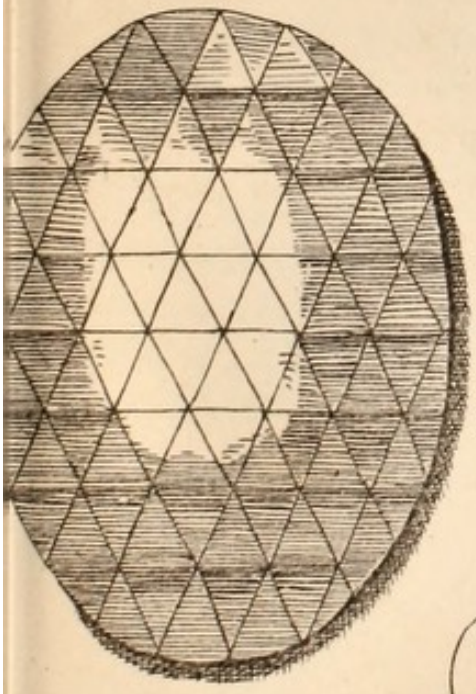

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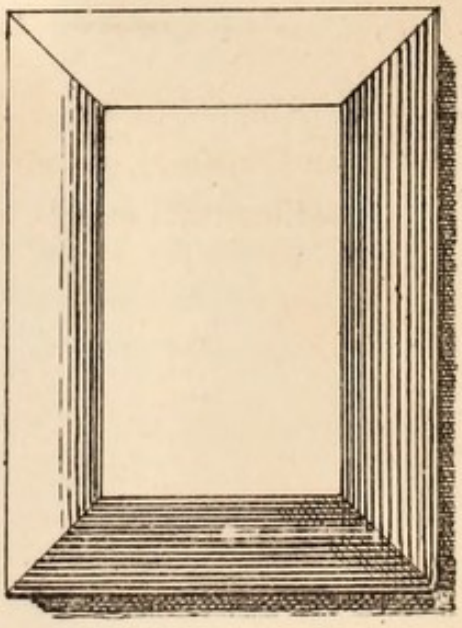

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T. H. Skelton, lithog, 180 High Street, Southampton.

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A MEMOIR.

CHAPTER I.

INTRODUCTORY REMARKS—KNOWLEDGE OF THE ANTIENTS ON THE DIAMOND—COMBUSTIBILITY OF THIS GEM—ITS CHEMICAL NATURE—ARTIFICIAL PRODUCTION QUESTIONED—ITS PHYSICAL AND PECULIAR PROPERTIES.

THE diamond[a] seems to have been known from the most remote period of antiquity. We find it associated along with the emerald and the sapphire, and the sixth in order, in the second row[b] of the twelve precious stones on which the names of the children of Israel were engraved, "every one with his name according to the twelve tribes." These were the Jewels of the breastplate of judgment, worn by the High Priest; NAPHTALI was inscribed on the diamond. What the URIM and THUMMIM[c] were, which also adorned the breastplate, when he went into the "holy of holies," we

[a] From the French, *Diamant.*

[b] Exodus xxviii, 18.

[c] URIM, *Lights.* THUMMIM, *Perfections.*

have now no accurate means of ascertaining, but as these are Hebrew nouns plural, and imply what is luminous and perfect, it is by no means unlikely that they were *diamonds* of great beauty and splendour, which refracted the glories of the symbol of the Divine Presence. The two chief diamonds belonging to Persia are hyperbolically termed, in the language of the east, "the Sea of Glory," and "the Mountain of Splendour," and specific names attached to rare and remarkable diamonds, are not uncommon in the East.

The Prophet Jeremiah adverts to 'the point of a diamond' as employed by the engraver in his time. Ezekiel also uses the *diamond* as a metaphorical symbol; 'Thou hast been in Eden, the garden of the LORD, every precious stone was thy covering, Sardius, Topaz and *Diamond*.'[a] I am aware that Dr. Geddes is not quite satisfied with this translation of the term, which in the original, is derived from a word implying a maul or hammer, or what may be broken by it; which, however, might have a reference to its extreme hardness.

The antients seem to have been well acquainted with the use of the diamond in etching, and it is even stated that the figure of Mars, or of Hercules, surmounting the Hydra, was engraved on it. The

[a] Ez. xxviii, 13.

Duke of Bedford possesses a diamond on which is engraved an antique head, erroneously supposed to be that of Posidonius. The diadem, which is more antient than the crown, was not worn until after Constantine, in the lower empire. This was a fillet, tied in a knot behind, and adorned with pearls and *diamonds*, either in a single or a double row, which empresses were also permitted to wear. The diadem thus decorated may be observed on some of the coins of Constantine and Jovian. There is in the British Museum an antient Roman gold ring, with an octohœdral diamond set in it: and in the clasp of the mantle of Charlemagne there were four diamonds, natural crystals. It was sometimes considered a talisman, and esteemed favourable, when under the planet Mars. The diamond has been deemed an emblem of fortitude. In former times it was supposed to cure insanity, and to be an antidote to poison; notwithstanding which, Paracelsus was said to have been poisoned by diamond-powder: [a] we believe it to be as inert

[a] I was informed that diamond-powder, mixed up with oil, for polishing, being left accidentally exposed by the lapidary, some mice during the night had chuckled it up as a *bonne bouche;* and that they felt no inconvenience from the dose, was evident, from repeated disappearance of a similar mixture thus inadvertently neglected. They seem to have been rather expensive inmates, as they thus devoured diamond-powder to the amount of some pounds.

in the one case, as it is harmless in the other. The Greeks called this gem αδαμας *(unconquerable)* ; and ADAMANT was given to it in consequence of this supposititious virtue, in that it was esteemed victorious over fire, and to resist the hardest things. Antient Greek writers describe it as only found in Ethiopia, between the island Meroe and the temple of Mercury. The notions of the antients about it seem to be altogether confused and indistinct. According to Pliny, there existed between the diamond and the magnet a natural antipathy. "There is," says he, "such a disagreement between a diamond and a loadstone, that it will not suffer the iron to be attracted; or if the loadstone be put to it and take hold of it, it will pull it away." [a] It is needless to observe, no such antipathy can now be discovered in the case; and had the grand test of inductive truth, "experimentum fiat," been then applied, it would, like the witty monarch's problem propounded to the Royal Society, have been found an equally gratuitous assumption. I have found no diminution of the attractive powers of the magnet, when there were interposed between a magnet and a fine needle no less than five fragments of diamond. It has been stated, that the diamond was able to resist the power of the highest temperatures, but that it

[a] Pliny, lib. 37, chap. 4.

must be carefully removed from the furnace, and suffered to cool gradually, otherwise it will crack and fall to pieces. I have seen a large and costly Brazilian diamond fractured accidentally in two by some such means; but if I remember right, this was occasioned by a fall, after having been subjected to heat. Many authors have permitted their fancy to rove on some attribute peculiar to the diamond, either real or supposed; thus, we are told, that a diamond is softened and broken if steeped in the blood of a goat; but not, according to others, unless it be fresh and warm, nor even then, fractured without blows; and that it will also break the best hammers and anvils of iron.[a] Sir Thomas Brown says, that a diamond being steeped in goat's blood rather receives thereby an increase of hardness; "for," he observes "the best we have are comminuible without it: and are so far from breaking hammers, that they submit to pistillation, and resist not an ordinary pestle."[b] The truth is, as far as the goat's blood is concerned, it makes no difference either way; and we know very well that it is a matter of no difficulty to crush

[a] 'Hircinno rumpitur sanguine, nec aliter quâm recenti calidoque macerata, et sic quoque multis ictibus tunc etiam preterquam eximias incudes malleasque ferreas frangens.'—PLIN. NAT. HIST.

[b] Sir Thomas Brown, b. 2, p. 92.

the diamond in a steel mortar; from its lamellar texture it is also capable of being split and cleaved, and jewellers are by these means enabled to work it. The test of a diamond, in the Brazils, we believe to be this: when placed on a hard stone, and struck with a hammer, if it either resist the blow, or separate into laminæ, it is concluded to be one. The introduction of a steel point will easily separate the laminæ of the diamond. Small round diamonds cannot however be split.

A gentleman informed me that Dr. Wollaston calling one day at Rundle, Bridge and Rundle's, was shewn a fine large rough diamond, with the remark that its form was such that they could make nothing of it, and it could not be cut to advantage, intimating that it would be a valuable appendage in its present form, to some public institution. Dr. W. minutely inspected the stone, and believing he had discovered its structure, made the purchase. He had it cut, and after paying all expenses, resold it to Messrs. Rundle and Co. for more than double its original purchase.

From the extreme brilliancy of the diamond, and its purity, it was consecrated to all that was celestial, and accordingly considered, that it would triumph over all means employed to subdue it, the solar ray, excepted. It did triumph indeed over the hot furnaces to which it was exposed in

the crucible of the alchymist, but the spell which united it to the sunbeam is now dissolved, and it has yielded to the severity of the "torture and inquisition" of modern chemistry. Newton, reasoning from its great density and high refractive property, concluded that the diamond was combustible, or, to use his own language, "an unctuous substance coagulated," though he was in some measure anticipated by Boetius de Boot, in 1609. The event has amply verified this conjecture, and the Tuscan philosophers and the Honourable Mr. Boyle ascertained the fact. Ths first grand experiment to prove the combustibility of the diamond took place in the presence of Cosmo the III, Grand Duke of Tuscany, in 1694. In these experiments a diamond of 30 grains, exposed to the focus of the great burning mirror, for thirty seconds lost its lustre, transparency, and colour, and became of an opake white. In five minutes bubbles appeared on its surface; it soon afterwards broke into pieces, which were dissipated, and the minute fragments that remained might be crushed by the pressure of the blade of a knife. Rubies and emeralds were fused in other experiments, but not the diamond. Guiton de Morveau, and others, consumed the diamond, and it was readily dissipated in the focus of the great mirror of Tchirnhausen. Parker's burning lens cost £700,

was disposed of to Captain Macintosh, and carried to China, and if I mistake not, was seen by Lord Macartney at Pekin. The length of the focus is 29 inches, and the diameter of the focus $\frac{3}{8}^{th}$ of an inch. A diamond weighing 10 grains being exposed to its power for 30 minutes lost four grains, during which period it opened and shut like the petals of a flower, and emitted whitish vapour. When it finally closed, it retained its original form and was even susceptible of polish. In the year 1771, Macquer observed the diamond to inflame. Guiton de Morveau had proved that the diamond was destroyed when projected into red-hot nitre; and it was also burnt by means of melted nitre in a gold tube, by Mr. Tennant. Experiments on the combustion of the diamond appear also to have been made by the order of Francis I. When diamonds were exposed to intense heat in a crucible for two hours, they lost their polish, split into laminæ and were dissipated. Emeralds were fused by this temperature. When fragments of diamond were introduced into the brilliant arch of flame, evolved between points of charcoal in the galvanic batteries of the Royal Institution, consisting of 2,000 double plates, and exposing a surface of 128,000 square inches, they rapidly disappeared, being completely volatilized. The diamond may be easily consumed by being placed in a cavity of

charcoal, and urging on it the flame of a spirit lamp, by means of a stream of oxygen.

So far the combustibility of the diamond was completely ascertained, but its nature remained still undetermined. Lavoisier had proved and pointed out that carbonic acid gas was evolved as a product both in the combustion of the diamond and that of charcoal, and thus their identity was inferred. The researches of Clouet, Messrs. Allen and Pepys, and others, have confirmed this conclusion. Sir George Mackenzie converted iron into steel by powdered diamonds. Mr. Children's immense battery consisted of twenty triads, each six feet long, by two feet eight inches broad, exposing a total surface of thirty-two feet; when iron, with diamond powder interposed, was exposed to its influence, the iron was converted into steel, and the diamond disappeared; and Mr. Smithson Tennant, having placed a diamond in a gold tube, supported in a state of incandescence; a stream of oxygen, by means of gentle pressure, was made to traverse it, and the result proved that the oxygen was transformed into an equal volume of carbonic acid gas, which was found in an opposite receiver resting over mercury. Sir Humphry Davy, when at Florence, made some experiments with the Grand Duke's burning lens, on the combustion of the diamond. He found that when the

gem was introduced into a glass globe supplied with oxygen, and kindled by the lens, it continued to burn after it was removed from the focus. The diamond in its combustion yielded a steady brilliant red light, visible in the bright sunshine, after being withdrawn from the focus. The platinum wire which attached the gem, was fused. Diamonds were thus disolved in pure oxygen, and carbonic acid gas proved to be the exclusive result. There was no deposit of aqueous vapour, nor was the gaseous volume diminished; circumstances which proved satisfactorily, the absence of hydrogen. From the high refractive property of the diamond, Biot and Arago supposed it might contain hydrogen, but Sir H. Davy's experiments at Florence seem to me entirely conclusive as a negative. On the other hand, when plumbago and charcoal were consumed under similar circumstances, there was a sensible diminution of volume, and also a formation of watery vapour, clearly proving that the latter contained hydrogen.[a] Experiment has thus unequivocally demonstrated that the diamond is pure crystallized CARBON. Mr. Smithson Tennant was of opinion that the only difference between the diamond and charcoal consisted in the crystalization of the former. Charcoal contains

[a] Phil. Trans. Part II. 1814.

adventitious matter, such as a minute quantity of hydrogen, and earthy and metallic matter scarcely appreciable.

It was once stated that some approximation had been made to the formation of the diamond in the laboratory of the Royal Institution, with their extensive galvanic battery. By acting on charcoal in vacuo, minute hard crystals were said to be formed round the superior wire. Dr. Hare remarks on Silliman's experiment, made by means of his deflagrator on charcoal, that the limpid bubbles obtained in relief on mahogany charcoal, perhaps contained a little iron, and whether it had therefore been really *fused carbon* may reasonably be questioned. It has been stated in France, that a solution of phosphorus in sulphuret of carbon yields minute diamonds. I have been in the habit of using this compound for many years, and have never discovered any thing of the kind; and the diligent search I have made, since this strange announcement, has been equally unsuccessful—I believe diamonds are not so easily formed. From the result of my own experiments, I am inclined to think, that in steel the charcoal assumes a crystaline form and arrangement.

The diamond is a gem characterised by its extreme hardness: notwithstanding this, it often pre-

sents, in its rough state, sufficient evidence of having undergone abrasion by friction. There is a peculiar and almost indescribable grating sound produced by rubbing two diamonds together in the hand, which is a tolerably good test.[a] The diamond is sometimes externally, and always internally, bright, and causes a single refraction of the rays of light. It is found crystallized of various forms, of a lamellar structure, strikes fire with steel, and is the hardest of all known bodies; it cuts the hardest crystals, even rubies and sapphires, and the oriental amethyst. Nothing but diamond powder, obtained by rubbing two diamonds against each other, can polish it, and it is cut by fragments of diamond set in a maule. The diamond is stated to be consumed and volatilized at a temperature which melts silver. A diamond being exposed to the focus of a concave speculum of 40 inches, was reduced to one-eight part of its original weight.[b] The concave specula at the Colloseum, London, readily fuse silver. It requires a temperature of 5000° F. for its combustion. When exposed to

[a] It has been stated that a test of distinguishing between real and factitious diamonds, consists in the property which the former has of adhering closely to *black mastic*, in which it is said they are sometimes set in order to give them greater lustre.

[b] Phil. Trans. No. 386.

the sunbeam, and carried afterwards into darkness, it exhibits phosphorescence, and it has been stated that such diamonds as do not display this peculiarity may be made to do so by dipping them into melted borax. The diamond is said to become phosphorescent after being plunged into boiling water. It becomes phosphorescent also when fixed to the prime conductor of an electrical machine, and a few sparks are taken from it. The diamond becomes electric by friction, and the Honourable Mr. Boyle obtained electric gleams on rubbing two diamonds together in the dark. It is said, that when fulminating silver is exploded in contact with the diamond, reduced silver is precipitated on it. By igniting fulminating mercury both on and near some diamonds, I found however only faint and equivocal evidence of reduction. The reduction of the mercury on a plate of glass, when fulminating mercury is ignited on its surface, is extremely beautiful, and forms a *mirror* of considerable brilliancy. The specific gravity of the diamond has been estimated at 3500, water being 1000,—though it must be admitted, that the comparative hardness and specific gravity have been variously estimated, thus:—An oriental diamond from Ormus, possessed a specific gravity of 3' 4, and a comparative hardness equal to 20—a pink diamond

with a similar specific gravity, exhibited a hardness equal to 19—while a bluish diamond, and one of a yellowish tint, with a similar hardness of 19, possessed a specific gravity of 3' 3, and a cubic diamond of 18, a specific gravity of 3' 2.

CHAPTER II.

GANGUE OF THE DIAMOND, AND ITS GEOLOGICAL ASSOCIATES—ITS CRYSTALINE FORMS—CONJECTURES ON ITS ORIGIN—LOCALITIES, ASIA, AND THE BRAZILS—LATELY DISCOVERED IN THE URAL MOUNTAINS, AND IN IRELAND.

UNTIL lately, the habitat of the diamond had been confined to localities ranging within the limits of 18° on either side of the equator, in Asia and South America. In Asia, the diamond is found most abundantly in the kingdom of Golconda, and Visapour, in Bengal; chiefly in the central and southern parts of India Proper, the Peninsula of Malacca, and Island of Borneo; and in the Brazils, in the mountainous districts, called Serro Dofrio, and other places. It appears from the specimens in the various cabinets of Europe, that the true gangue of the Brazilian diamond is a brown oxyde of iron. The matrix of the diamond appears to be what the Geologist calls an amydaloid, belonging to the newest floetz trap formation of the Wernerian arrangement. In India, it appears,

that the diamond is found in a species of indurated ochery gravel, in the form of detached crystals. In the specimens in the British Museum, the matrix of the diamond seems to be a conglomerate of quartz pebbles, cemented by oxyde of iron. Specimens of the alluvial rocks in which diamonds occur both in the East Indies and the Brazils, may be seen at the British Museum. Mr. Heuland, an eminent mineralogist, possesses a diamond in its matrix. In the ravine of Adolpskoi, in the Ural Mountains, the diamond has been found in the black dolomite, in the alluvion of which it seems to have been formed. This dolomite is probably the repository of the diamond. According to Gobel, this black dolomite contains 7-50 black powder, partly carbon, 40-79 carbonic acid, 0-50 alumina, 6-28 oxyde of iron, 30-65 lime, 13-05 magnesia, 1-23 water.—99-97. Thus, diamonds, along with gold, are found in the debris of black dolomite. No diamonds have hitherto been found in solid rocks, but only in the diluvium or alluvion resulting from their dissintegration. It is reported that the diamond has been found in India, in the sandstones of the coal formation, and new red sandstone. Be this as it may, I have a portion of carbon taken from a cavity in solid sandstone.

According to Mawe, the diamond in the Brazils

is found in a loose gravel-like substance, immediately incumbent on the solid rock, and covered by vegetable mould, and recent alluvial matter. This gravel consists principally of rounded quartz pebbles of various sizes, mixed with sand and oxyde of iron, and accompanied with blue, yellow, and white[a] topazes, together with grains of gold. The late Mr. Mawe, who visited the diamond district, and whose scientific skill may be credited in the description he gives of the spot, presented me with a specimen of this cascalhao. The diamonds of Rio Pardo are superficially, of a pale green tint, and costly. The Serro do Frio, in the Brazils, according to this author, is the best diamond ground, and it has passed its zenith.

The crystaline forms of the diamond are the primitive regular octohædron;[b] or this with truncated solid angles, or with truncated edges, passing into the rhomboidal dodecahedron. There are also varieties of the latter which give rise to the six-sided prismatic and tetrahædral forms; also cubes with truncated and bevelled edges, &c. According to the Earl Marshal of England, it

[a] Known under the trivial name of *Novo Mina Diamonds*.

[b] In the British Museum is a diamond embedded in gold, from the minas geraes. There is also a small octohædral diamond embedded in a lumellar diamond, and two octohædral diamonds, of unequal sizes, as it were agglutinated together.

would appear that, in Golconda, both the merchants and miners go generally in a state of nudity, with only a sash on their heads, and a rag round them; they dare not wear a coat, he states, lest the governor should say they have prospered and become rich, and thus find an excuse to rise in his demands on them; notwithstanding, he observes, that when, perchance, they find a large stone, it is engulphed in a trice, till an opportunity occurs for their retiring with their wives and children into Visapour, where they are safe and well used.[a] In the diamond district of the Brazils, Mr. Mawe observed a half-starved cat, which may remind us of the moral of one of Æsop's fables.

Diamonds, like amber, have been supposed to be of comparatively modern formation or growth, and they contain, not unfrequently in the centre, soft hollows, like those met with in amber. Perrot, of St. Petersburgh, conjectures that the diamond is the product of volcanic action on carbon, with a little hydrogen.

Professor Jameson has very ingeniously conjectured that the diamond may be a vegetable secretion, perhaps that of some patriarch and antidiluvial baobab or banian tree. Dr. Brewster also traces the diamond, like amber, to a vegetable

[a] Earl Marshal. Phil. Trans. No. 136, p. 907.

source:[a] an inference deduced from his optical researches, which seem to prove that the superposed laminæ of the diamond often present different densities in as many distinct zones, a fact favourable to its vegetable origin. When we consider how abundantly *silica* is secreted in some grasses, the *calamus rotang*, the *equisetum hiemale*, and others; and carbonate of lime, as in the *chara* tribe—we must admit its plausibility. In the joints of the female bamboo, the *tabasheer* or vegetable opal has been found, curiously, however, displaying properties the very reverse of the hydrophane; besides, we know that a mass of wood-stone was torn from a log of teak wood (*tectona grandis*), some years ago, in Her Majesty's dockyard at Calcutta, in which it seemed evidently to be a secretion, and was interlaced by the fibres of the wood. In 'Galignani's Messenger,' it was stated, that a workman of the Jura, in cutting a piece of levant wood, found embedded in it a diamond valued at 500,000 francs. It is supposed to have been originally introduced into a cavity, and the wood to have finally enveloped it. In hard woods, as in *lignum vitæ* and *iron wood*, some approach seems to be made to the adamantine

[a] 'Metrodorus Scepsius in eadem Germania et Boætia insula nasci, in qua et *succinum* quod equidem legerim, solus dicit,' &c.—*Plinii Nat. His. Lib.* xxxvi. *C.* 4. *De Adamantis, &c.*

state. We have already stated, that vegetable mould and recent alluvium are incumbent over the cascalhao in which diamonds are found; moreover, plants, in their ashes, yield metallic oxydes, as those of iron and manganese, and gold has been discovered in the ashes of the vine. The tree, scathed by the metoric blast, might not only have thereby imparted to it such a peculiar susceptibility, but absorb the oxydes of iron, nickel, and chromium, and from such metallic sources, the colours that sometimes tinge the diamond may be easily supposed to arise. We are not aware, however, that these colouring matters have ever been ascertained by direct experiment. I possess a fine crystalized yellow diamond, but confess I am unwilling to make the sacrifice. The various tints of yellow, &c., are likely produced by oxydes of iron or manganese; and green, &c., by nickel or chromium. The colouring matter of the spinelle ruby would appear to be chromic acid. The oriental sapphire seems to be coloured with oxyde of iron, and the emerald with oxyde of chromium. The crysoberyl, or crysolite, beryl, tourmaline, and garnet, contain oxyde of iron.

The stratum of cascalhao consists of precisely similar materials to that in the gold district; on many parts of the edge of the river are large conglomerated or rolled masses of rounded pebbles,

cemented by oxyde of iron, sometimes enveloping gold and diamonds. Little black garnets are also found among the diamonds. The diamonds are chiefly purchased by British and Dutch lapidaries. "The substances accompanying diamonds, and considered good indications of them, are bright bean-like ore, a slaty flint-like substance, approaching Lydian stone of a fine texture, black oxyde of iron in great quantity, rounded bits of blue quartz, yellow crystal, and other materials, entirely different from any thing known to be produced in the adjacent mountains."[a] It by no means appears that diamonds are peculiar to the beds of rivers or deep ravines, though usually found there, for diamonds have been discovered in cavities and watercourses on the summits of the loftiest mountains. Linschoten says, that in the East Indies, when they have cleared the diamond mines of all they can find, a new crop is produced in a few years; this, however, is very problematical.

The Brazilian diamond mines have some advantages over the Eastern; the diamonds are more numerous, and proportionally there seem to be far fewer of an inferior description. It does not appear that the mines net £40,000 per annum, though the expense of labour rarely exceeds 6d.

[a] Mawe, on precious stones.

to 8d. a-day, and yet the diamond ground must be occasionally rich in this precious gem. "That piece of ground," said the intendant to Mr. Mawe, speaking of an unwashed flat by the side of the river, "will yield me 10,000 carats of diamonds"—so accurate seem to be the indications obtained from long acquaintance and practical experience, although unaccompanied by science. From 1801 to 1806 inclusive, the expenses appear to have amounted to £204,000, and the diamonds sent to the treasury at Rio de Janeiro weighed 115,675 carats; the value of gold in the same period amounted to £17,300, consequently the diamonds cost government 33s. 9d. per carat; and, had such been entirely composed of small diamonds, not worth the expense of working: on the other hand, a number of diamonds of a considerable size would have afforded an ample return to the Brazilian government. The years to which we refer were considered singularly productive, and in general the Brazilian diamond mines do not average more than 20,000 carats annually.

The diamond appears to have been discovered in the Brazils, in Serro do Frio, about a century ago, and at this period some having been sent to Holland, were pronounced equal to those from the mines of Golconda. At one time it was generally

supposed that the Brazilian diamond was *less hard* than that of Asia, and even now the idea is sometimes entertained; how true, may be open to question. It would appear that the diamond mines of the East have long been on the decline, nor do those of the Brazils, judging from present appearances, promise permanence. The European market chiefly depends, at the present time, on the Brazilian mines. In the history of the diamond, it appears, two grand influxes have occurred: the first from the Brazils, very shortly after its discovery in that region, and when they were with difficulty recognized in Europe as real diamonds; the second period appears to have been during the French revolution of 1793, when the unfortunate refugees were necessitated to sell their jewels at what they would immediately bring: of course, the very sudden influx would operate as one cause of depreciation, and on the other hand, advantage would be taken of the panic consequent on the disastrous event. At this time, I am informed, the diamond might be purchased and was purchased as low, in some cases, as £4 the carat, when the current price in the British market was as high as £8. The first-rate gems are always dull in sale, for these require imperial and princely fortunes for their purchase.

The diamonds which embellish the Imperial

treasury of the Brazils are, beyond doubt, the most superb of any crown possessions either in antient or modern times; the finest and largest are retained to swell that magnificent casket of jewellery, and government consigns the rest for sale to the Brazilian ambassador, for which purpose they are deposited in the Bank of England.

Hitherto we have considered the diamond as confined to specific localities. In June, 1829, however, two of the Baron Von Humboldt's companions, when exploring the western declivity of the Ural mountains in Asiatic Russia, discovered diamonds. Seven in all, of various sizes, were found on the estates of Count Porlier, about 160 miles to the west of the town of Perm. They were stated to be of the finest water, and of a quality that approached more nearly to the Asiatic than the Brazilian diamond.[a] During the summer of 1830 the

[a] It appears that the first Russian diamonds were found on the 22d June, 1829, on the western side of the Ural, at the Biszer Gold Wash of the Countess Porlier, by a boy, aged thirteen years. The search for diamonds seems to have been first suggested by Maurice Engelhardt, in a journey to the Ural, in 1826, *(Revue Encyclop.)* from the resemblance of the platina sand to that of the diamond districts of the Brazils. Humboldt also recognised a similar resemblance between the Ural and Brazilian mountains. Count Porlier found a diamond in a species of gold and platinum sand: three more were soon found, and since that period several others, equal to those of the Brazils.

search was renewed with increased activity, and Professor Engelhardt, of Dorpat, who is now employed in a second visit to those regions, writes to a friend in Germany, that seven other diamonds have been discovered amongst the gold dust, on the same property, and on the same spot where a similar number were found the preceding year. They weigh from $\frac{3}{8}^{\text{ths}}$ and $\frac{2}{3}^{\text{rds}}$ of a carat to one carat. These are indeed but small, but the quality seems first-rate, and may be the earnest of an eventually rich and *brilliant* harvest.

Three diamonds have lately been purchased at Algiers, from a native, which it appears were found in the Auriferous Sands of the Sumee, in the Province of Constantine. One was obtained by M. Dufresnez, and the other two by M. Brogniart, for the Museum of M. de Dree. The site of the diamond as referred to by the antients, is Africa; and the fact of these having been obtained in the regency of Algiers establishes the historical evidence, though hitherto it had remained unrecognized in modern times. Here as in the Brazils, &c. they are found in washing for gold.

A diamond has also been found in Ireland, in the bed of a brook flowing through the district of Fermanaugh. It possesses a red tint, and was brought to a lady resident there, by a little girl, who said she had picked it up in the bed of the

brook: the bearer was rewarded with 6d. by the lady, who had been in the habit of collecting pebbles, &c. from the rivulet. This rough diamond was afterwards submitted by the lady to Mr. Mackay, an eminent jeweller of Dublin, who pronounced it to be a diamond; and not long after, the opinion of the late Mr. Rundell, of Ludgate-Hill, was obtained, who valued it as a diamond worth twenty guineas, in its then rough attire. We received our information from the Rev. Dr. Robinson, of the royal observatory, at Armagh, a gentleman of high scientific attainments, who had the gem in his possession, and was well qualified to judge.[a]

[a] *Accident* may sometimes reveal rich treasures. The discovery of the original gold mine in one of the districts in the Brazils, was in consequence of opening and scattering an ant-hill of considerable magnitude. The silver mines of Potosi were discovered in 1545, by an Indian, while in search of a lama that had strayed from his flock. On laying hold of a shrub on a steep precipitous ascent, the plant gave way and discovered a mass of silver beneath its roots. Thus the vine in Hungary is found occasionally to absorb minute portions of gold, which are afterwards found in the ashes of the plant. The teeth of sheep are also sometimes plated with a film of supposed gold, but in reality that of persulphuret of iron; and the late Mr. Irton, of Irton-Hall, Cumberland, informed me that in carving a pullet at table, he found a small plate of gold in contact with the breast bone, and which he very naturally supposed the bird had picked up from the bed of a brook that flowed through a farm on his estate. [The diamond mine of Colore was discovered about 150 years ago by a peasant, who, when digging in the ground, found a diamond of 25 carats.

CHAPTER III.

VARIOUS FORMS INTO WHICH DIAMONDS ARE CUT—MODE OF ESTIMATING THE VALUE OF DIAMONDS—APPLICATION OF THE DIAMOND—COLOURED DIAMONDS—THAT OF AUSTRIA—GEORGE IV.—THE BLUE DIAMOND OF FRANCE—THE BLACK DIAMOND OF HIS LATE ROYAL HIGHNESS THE DUKE OF YORK.

DIAMONDS are cut into various forms; these are called the *Brilliant*, the *Rose*, and the *Table*. The first of these displays the gem to the best advantage, ranks first in estimation, and is always set with the table upwards. The *rose* may be considered as formed by covering the entire surface with equilateral triangles, terminating in a sharp point at the summit, and it is employed when the spread of surface is too great for its depth, since being thus disproportional, a great loss would be sustained were it to receive the brilliant form. The *table* is applied to such diamonds as may be considered plates, laminæ, or slabs, such whose shallow depth is widely disproportioned to their superficial extent. The brilliant and the rose lose in the process

of cutting and polishing, somewhat less than half their weight, consequently the value of a cut stone is double that of an uncut one, independent altogether of the expense of the process. The diamond cutters in England have been considered the best in Europe, but from their number being limited, many diamonds are sent to Holland for this purpose. The art of cutting and polishing diamonds does not appear to have been known in Europe before the fifteenth century. Small diamonds are sometimes set on black or coloured foil, but a fine proportioned brilliant of extreme purity is best displayed when entirely exposed.

Uncut stones, according to the earlier jewellers, are distinguished into thick or pointed, called *naife* stones, and flat stones. Flat stones are cut into roses or thin stones, and the naife into thick stones. Rough diamonds when of a greenish hue were accounted, when cut, to yield a *good water*, but if white before being cut, turned out of a bluish tint. When free from specks or foulness, it was called a *paragon* stone. Glaziers' diamonds were used to determine the reality of the diamond. Diamonds were not to be moulded in sand or cuttle fish bone, but a pattern, prior to the stone being cut, was to be made in *lead*. The lead was then weighed and its weight noted. It was then cut with the requisite precision, and the calculation accordingly made.

The lead weighs three times as much as the stone, and it commonly loses one-third part in cutting. Tavernier says that diamonds of a greenish crust sometimes fly to pieces on the wheel; he mentions one that broke into nine pieces at Venice under these circumstances, and which had been valued at £5,000.

The *rose* diamond, as has been already observed, is flat underneath, and its upper surface, raised in the form of a dome, is cut into facets: it has commonly six facets in the centre, which are triangular in shape, and united or converge into a point at their summit; the bases of these again abut on another range of triangles, which are in a reversed order, their bases being above and conjoined with the bases of the higher facets, their points forming what are called *feuillets* or leaves; these last triangles have spaces between them, each of which are cut into two facets. The *rose* diamond is thus cut into twenty-four facets, and the surface of the stone is divided into two parts, of which the higher part is called the *crown*, and the lower portion the *teeth*.

That part of the *brilliant* which rises in relief, is always thinner than the rose diamond, and the entire thickness of the stone is divided into two unequal parts; one-third is reserved for the upper surface of the stone, and two-thirds form the lower portion, and is that embedded and so far concealed;

this part of the brilliant is called the *culasse.* Mr. Jeffries calls the lower flat part the *culet*, and the superior one the *table;* the central line of the entire diamond he calls the *girdle*, and terms the facets, *skill* and *star* facets. In a perfectly formed and due proportioned stone the lower table should be one-fifth of the upper table. The table has eight panes, and the circumference is cut into facets termed *pavillons.* It is important that the *pavillons* should be placed in the same order as the upper facets, in order that by such an arrangement of symmetry all false play of light may be avoided: the great beauty of the brilliant depends on the sparkling splendour of its light, and the grand object must be to give full scope and play to all the laws of refraction, the high powers of which so eminently characterise the diamond. The rose diamond darts a great splendour of light in proportion as it is more spread than the brilliant; the advantage obtained in the latter, which was an improvement on the *table* diamond, introduced in the 17th century, is caused by the difference in cutting it. It is formed into 32 facets of different figures, and inclined at different angles around the table, upon the superior surface of the stone: the *culasse* is cut into twenty-four facets round a small table, which converts the *culasse* into a truncated pyramid: these twenty-four facets below, as well

as the thirty-two above, are differently inclined, and exhibit different figures. The facets above and below, as has been stated, must perfectly correspond, and the proportions be so exact as to multiply their reflections and refractions, so that the prismatic rays may be perceived to the best advantage.

We shall next proceed to some brief remarks on the value of diamonds. The small diamonds and fragments are sold in the east, by the diamond merchants, contained in small bags, sealed up, so that to the purchaser it is a complete chance-medley: in this way, too, are *pearls, carnelians*, &c., disposed of at the India-House. According to the rule supplied by Mr. Jeffries, the value of diamonds is in the duplicate ratio of their weights. Thus, suppose an uncut diamond, of one carat, to be worth £2, that of one cut and polished would be valued at £8 sterling in the brilliant. A carat weighs precisely four grains, *even beam*, as the balance is not allowed to decline. At this rate, a cut diamond of two carats would be 2x8x2=£32; one of three, 3x8x3=£72; one of four, 4x8x4=£128; and one of five carats, 5x8x5=£200. The rose diamond is of inferior value, but may perhaps be on the average rated at £4 the carat, when polished; a fine rose diamond, however, may have its value enhanced, but can never approach that of

a well-proportioned brilliant; and on the other hand, a brilliant of the finest water, and cut with mathematical exactness and true ratio of proportion, may bear a higher corresponding value. Hence a brilliant of the finest water, with a superb refraction and a perfect form, may be valued at much more than an ordinary brilliant. When a ruby amounts to three or four carats, it is more valuable than a diamond of the same weight. Sometimes oriental sapphires, when deprived of colour by exposure to intense heat, are sold for diamonds. The rose may be considered as formed from the superior section of the brilliant, having its base corresponding to the dimensions of the superior table before it is bevelled at the edges. A brilliant of three carats may have a spread on the upper table of one of five carats, and therefore may make the same appearance as one of the latter size; but as it is deficient in essential depth, the light it irradiates must have a corresponding diminution, and the rose supplied by it must be less elevated than a right proportioned stone. For the purpose of estimating diamonds of inconsiderable size, the jeweller employs a guage, in the handle of which are embedded small crystals, of various relative sizes, from one-sixty-fourth to one-fourth of a carat; a comparison is therewith made when there are numbers of various minute

sizes, and the calculation proceeds accordingly. The rough diamond is called *bort*, and *points* are those minute fragments which are set in what are called glazier's cutting diamonds. The glazier's diamond is fastened by lead in a cavity in an iron ferrule (ferrile), a handle of wood being used to guide it. In the Phil. Trans. for 1836, the late Dr. Wollaston has explained the cutting principle of glazier's diamonds. It is a singular and interesting fact, that the *natural point* only of the diamond will cut, as that obtained by polishing does not cut glass.

Besides the diversified forms of ornamental jewellery into which the diamond enters as a constituent part,[a] it is used, as has been already re-

[a] This costly and beautiful gem seems now chosen to figure away as the prime ornament of dress. At the late drawing-room, it was displayed in rich profusion, forming a perfect galaxy of diamonds. Diamonds are costly things: the present Queen of Spain had a necklace and earrings re-set in France; they are composed entirely of brilliants, and cost half a million of francs. Doubtless at *routs* and *assemblies* many figure away in factitious show—

"Faux brillians, et morceaux de verre." ([a])

but *real* diamonds can seldom be mistaken: there is a sparkling lustre and luminous brilliancy, which so far transcends all other gems, that those who have once seen, will easily recognise them again. The *cymophane (crysoberyl* or *crysolite)*, is the only gem that may compete with it. The crysolite is valued by the

([a]) Boileau.

marked, by the glazier, where, from a point invisible even to the lens,[a] the glass immediately rends under it, and though of considerable thickness, is cut with a facility and dispatch altogether remarkable. This gem has also been employed, we believe, under a patent, as well as the sapphire and ruby, for wire drawing, and it is sufficiently evident that its superiority over the steel plate must be immense, as a wire of invariable diameter must be thereby obtained, while, from its unyielding hardness, permanence and uniformity must be secured. The diamond is employed in chronometers, as end pieces, to close the socket in which the pivot moves, and against which it abuts; we believe, however, the ruby cylinder has been recently abandoned. Among the various purposes to which the diamond is applied in the useful arts, may be mentioned not only that of cutting and polishing gems, but for dissecting shells, to shew

carat. I possess a fine one of *five carats*, cut in the form of the *brilliant*. The crysolite is found along with the sapphire and ruby in Ceylon, and with the diamond in the Brazils; it has been found of ten carats, but this is very rare. Mr. Mawe observes, that "the colour, high lustre, and exquisite polish which it can receive, makes it sustain a competition with the diamond. It is a fine gem, coming into great repute, has great brilliancy by candle light, and sustains the rival presence of the diamond without injury."

[a] Dr. Wollaston has proved, that a specific angle imparted to crystals of inferior hardness, enables them to cut glass.

their internal structures. The diamond has also been employed by Mr. John Barton, of the Mint, to cut extremely minute groves in steel, with a complete and perfect parallelism, forming what have been called "iris ornaments," displaying the beauties of the spectrum. It seems, above all other gems, pre-eminently calculated to form small deep lenses for single microscopes, possessing a vast compass of refractive power conjoined with one of inferior dispersion, and very little longitudinal aberration. Mr. A. Pritchard, of 18, Pickett Street, Strand,[a] has formed a very thin double convex lens of the diamond, of equal radii, and about one-twenty-fifth in. focus, from a very perfect stone of the first water. Its polish is truly beautiful; and by its powerful and matchless reflection, proves the peculiar and unique material of which it is formed, while the considerable angle of aperture which it bears, attests its faint spherical and chromatic aberration. A diamond and a piece of plate glass, ground into a similar form, and possessing the same radius, will be in their comparative magnifying powers as 8 to 3: so far will the former transcend the latter. If the power of the glass lens be 24, that of the diamond would be 64. The index of refraction for the diamond is nearly

[a] He has also employed the colourless sapphire, but this, of course, is inferior.

nine times that of crown glass, and their dispersive powers are nearly the same. The mean specific gravity of Brazilian diamonds appears to be 3' 513, and those of the East, 3' 512. *Oriental* and *occidental* were terms applied to Eastern and Brazilian diamonds, and the former epithet was sometimes applied to designate the finest and hardest gems, whether Eastern or not. The late Mr. Lowry applied the diamond instead of the steel point in etching on copper; a considerable improvement, especially for architectural subjects, the azure of the sky, and the sea in maps, as the steel point soon gives way.

The diamond is always transparent, as already mentioned, and, for the most part, colourless: stains, flaws, cross veins, and muddiness, materially detract from the value of the gem, as well as from its beauty. The diamond is found of a light yellow, passing into wine colour, and thence through cinnamon-brown into almost black; also, pale green, passing into yellowish green, blueish grey, passing into Prussian blue, and pink, passing into rose red. Sometimes ferruginous specks are found in the diamond. Occasionally, though rarely, the diamond may possess more than one tint, as partly blue, partly yellow, and partly opalescent; and I am informed there are party-coloured diamonds among the jewels in the treasury of the Brazils.

The value of the diamond is much enhanced if pink, blue, or green, and eagerly sought after; on the other hand, yellow coloured diamonds are of inferior value.

Coloured diamonds of a large size are comparatively few in number. The Maximilian, or Austrian diamond, is of a yellow colour, and rose cut, and has been an heir-loom in the family ever since the Emperor of that name. We believe it passed from the hands of the Grand Duke of Tuscany into the imperial family, and, if we mistake not, it is the same which has been rated at 139½ carats, and valued at £155,682. The diamond formerly belonged to one of the Grand Dukes of Tuscany, who came possessed of it by purchase, and it was for a long time preserved in the family of the Medici, but ultimately fell into the hands of the Emperor of Germany. Tavernier says, that the 'Maximilian,' or Austrian diamond, has a little of a citron colour. Robert de Berquen observes, that the diamond was cut in two, and that the Sultan has another of the same size; and mentions, that there were at Bisnagar two large diamonds, one 250, and another 140 carats.

"George IV. diamond," is of a rich and splendid blue colour, and of great beauty and rarity. It was purchased by that monarch from Mr. Eliason, for £22,000. Its weight is stated to be 44¼

carats. It formed the chief ornament in the crown on the day of his coronation.[a] Mr. Mawe states, in his work on "Diamonds and precious Stones," p. 16, that "there is at this time a superlatively

[a] It has been stated, in "*The Court Journal*," &c. that, at the coronation of His Majesty, George IV., the jewels in the British crown were *lent* by Messrs. Rundell, Bridge, and Rundell, of Ludgate-Hill, at 10 per cent. interest, forming an annual charge of £6,500, which was continued for four years afterwards. By the courtesy of this eminent firm, I am enabled to contradict this statement, as they inform me they furnished all the diamonds made use of for the crown which George IV. wore at his coronation, but that they were all returned after the ceremony. Messrs. Rundell & Co. also inform me that there are no diamonds of any importance in her Majesty's crown, that the weight of the large *uncut* ruby (that of the black Prince) is 170 carats, but the value of it is imaginary, as so much depends on the importance which may be attached to its history. There is no emerald of value in the crown, but there is a very large spread sapphire, to which it would be very difficult to affix a price.

It was asserted that the King of Hanover had preferred a claim to the British crown jewels. I believe he has no right to any thing of the kind, and am glad to be confirmed in this opinion by that of Messrs. Rundell, Bridge & Co., who tell me that they are not aware of any such claim.

When the notorious Blood attempted to steal the regalia from the Tower, on the 9th May, 1671, it appears no gem of any consequence or value was eventually lost.—"A large pearl, a fair diamond, and a number of smaller stones were bulged from the crown in this robustious struggle, but both the former, and several of the latter, were picked up and recovered. The *Ballais ruby*, which had been broken off the sceptre, was found in his accomplice (Parrot)'s pocket."

fine blue diamond, of about 44 carats, in the possession of an individual in London, which may be considered matchless." Messrs. Rundell, Bridge & Co., state to me that the late Henry Philip Hope, esq., possessed the finest blue diamond ever known, and it is now in the possession of his family, but they are not aware of the price he gave for it. This may be the one referred to.

Perhaps one of the largest and most beautiful coloured diamonds is a rich sky-blue brilliant, belonging to the crown jewels of France. It is stated to weigh sixty-seven two-sixteen carats, and estimated at three millions of livres. There was a fine blue diamond in the possession of the late Mr. Greville.

I am informed that His late Royal Highness the Duke of York was once possessed of a diamond almost approaching to jet black; and my informant, who mentioned his having seen it, described it as possessed of peculiar beauty and brilliancy: it was valued, I understand, at about £8,000.

Dutens says he saw a black diamond in the possession of Prince de Lichtenstein at Vienna. A gentleman from Rio de Janeiro informed me he had seen there a diamond of a round form and uncut, the size of an ordinary pea, and of a jet black colour. Tavernier saw a diamond in the treasury of the Mogul with black specks, weighing about

thirty-six carats, and he states that yellow and black diamonds are found in the mines of the Carnatic. Dr. Lewis states his having seen a black diamond. At a distance it looked uniformly so, but on a nearer inspection was unequal; or muddy, or foul. *Brown* diamonds I have seen of different shades of intensity; but when they are thus tinged, or yellow, the value is considerably decreased. It is called by the lapidary 'off colour,' and the value is thereby sometimes reduced from one-third to one-half.

CHAPTER IV.

THE LARGE UNCUT DIAMOND OF PORTUGAL—THE GREAT MOGUL DIAMOND—THAT OF THE RAJAH OF MATTAN—THE SCEPTRE DIAMOND OF RUSSIA—THE PITT, OR REGENT DIAMOND—THE SANCI—PIGGOTT—NASSUCK, ETC.—DIAMONDS OF THE BRAZILIAN TREASURY—MISCELLANEOUS REMARKS—CONCLUSION.

It has been stated, that the number of diamonds, of the weight of 36 carats and above, known, do not really amount to more than nineteen. The entire number of diamonds of a large size in Europe, scarcely amount, according to Mr. Mawe, to more than half a dozen.[a]

The largest diamond in the world is the Abaité,

[a] "When a negro is so fortunate," says this author, "as to find a diamond of the weight of an octavo (17½ carats,) much ceremony takes place; he is crowned with a wreath of flowers, and carried in procession to the administrator, who gives him his freedom, by paying his owner for it. He also receives a present of new clothes, and is permitted to work on his own account. When a stone of eight or ten carats is found, the negro receives two new shirts, a complete new suit, with a hat and a handsome knife. For smaller stones of trivial amount, proportionate premiums are given."

so called from the locality were it was found about 75 years ago. It is about the size of an ostrich egg, its weight is estimated at 1680 carats, and assumed value, according to Rome de L'Isle, three hundred millions sterling. Three Brazilians, An. de Sousa, Jose Felix Gomes, and Th. de Sousa, were sentenced to perpetual banishment in that part of Minas Geraes, then in the possession of the Indians, where it was found. An excessive drought had laid dry the river Abaité, and here, while working for gold, they discovered the diamond. It was despatched to Lisbon, and a frigate returned with a pardon. It remains still uncut, but Don John VI. had a hole drilled through it, and it was suspended to his neck on gala days. It is not known whether it still remains among the crown jewels given up by Miguel, or had been previously pledged to carry on the war. Mr. Magellan says that a fragment was broken off it, by the ignorance of the person who found it, having struck it a blow with a hammer. Rejecting the erroneous estimate of Rome de Lisle, according to the mode of calculation assumed by Jeffries, its value will be, in its present form, £5,644,800 sterling. The river Abaité is at some distance from Tejuco, and about 92 leagues to N. W. of Serro do Frio. The three individuals exiled for their crimes, after wandering for six years through new and unfrequented

regions, at length explored the river where the Abaité diamond was found. These individuals communicated their discovery to a priest, and by his advice they repaired with him to Villa Rico, and cast themselves on the clemency of the governor. The officers of the jewel department confirmed the fact of its being a diamond, and the sentence was suspended by the governor. The priest accompanied the diamond to Lisbon, explained the circumstances under which it was found, was remunerated for his trouble, and returned with a free pardon. Mr. Mawe who had attentively examined it, informed me that he considered it to be a 'Novo mina' or white topaz, and not a diamond.

One of the largest of undoubted diamonds is that mentioned by Tavernier, in the possession of the Great Mogul, discovered about the year 1550, in the mine of *Colore*, in Bengal, not far to the east of Golconda. This celebrated diamond of Aurungzebe, called 'Mogul,' according to Sir Stamford Raffles, when uncut, weighed, agreeable to Rome de L'isle, 795⅝ carats, and was then valued at £600,000. When cut it was reduced to 279 9-16^{ths} carats. Tavernier estimates the weight of the Mogul diamond, prior to being cut, at near 800 carats. It is cut in rose, and has a small flaw beneath. This splendid diamond was presented by an Indian

Prince to Schah Jehan, the father of Aurungzebe. The keeper of the jewels, Akel Kham, by permission of the Great Mogul, afforded Tavernier every facility for the inspection of the jewels of the Mogul treasury.

The Rajah of Mattan, in the island of Borneo, possesses a diamond, which was found there upwards of fifty years ago. It is said to be of the finest water, and weighs 367 carats; and allowing 156 carats to the ounce troy, is two ounces 169,87 grains troy.[a] Many years ago, the Governor of Batavia tried to effect its purchase, and sent Mr. Stewart to the Rajah, offering 150,000 dollars, two large war brigs, with their guns and amunition, and a considerable quantity of powder and shot. The Rajah, however, it appears, refused to despoil his family of so rich an inheritance, to which the Malays, indeed, superstitiously attach the miraculous power of curing all kinds of diseases by means of the water in which the diamond is dipped, and with it they believe the fortune of the family is connected.

Sir Stamford Raffles, in his History of Java, gives us the following account of the Mátan diamond, which was *uncut* when he wrote his account. "The celebrated diamond, known by the name of

[a] Memoirs of the Batavian Society.

the Mátan diamond, was discovered by a dáyak, and claimed as a droit of royalty by the Sultan of the country, Gúru-Láya, but was handed over to the Pangéran of Lándak, whose brother, having got possession of it, gave it as a bribe to the Sultan of Súkadána, in order that he might be placed on the throne of Lándak. The lawful prince, however, having fled to Bantam, by the aid of the prince of that country, and the Dutch, succeeded in regaining possession of his district, and nearly destroyed Súkadána. It has remained as an heir loom in the family for four descents, and is almost the only appendage of royalty now remaining."[a] The Lándak mines in the island of Borneo, agreeable to the testimony of Sir Stamford Raffles, are as productive, and its diamonds as precious, as any in the world.

The diamond of the imperial sceptre of Russia was one of the eyes of an idol of Malabar, named *Scheringham.* A French granadier, who had deserted from the India service, and managed to become one of the priests of the idol, contrived to secret himself in the temple, stole its diamond eye, and left it sightless of one. Our hero made his escape to the English camp, at Trichinopeuty, and from thence went to Madras. A ship-captain

[a] Vol. I. p. 266.

bought it for 20,000 rupees. Subsequent to this, a Jew gave £17,000 to £18,000 for it; at last, a Greek merchant, named Gregory Suffras, offered it for sale at Amsterdam, in 1766, from whom Prince Orloff bought it for Catherine, of Russia, for £90,000, an annuity of £4,000, and a patent of nobility, as he himself informed Mr. Magellan. Dutens and Bomare give the preceding version of its history, and it seems to be a genuine account. This diamond has been valued at TWELVE TONS OF GOLD; its weight is 179 carats, and its position in the imperial sceptre, immediately beneath the golden eagle, which surmounts it. This is the diamond evidently referred to in a letter from the Hague, dated 2d January, 1776, quoted by Boyle, in the Museum Britannicum:[a]—"We learn from Amsterdam, that Prince Orlow made but one day's stay in that city, where he bought a very large brilliant for the Empress, his sovereign, for which he paid to a Persian merchant there, the sum of 1,400,000 florins (Dutch money). A florin in Holland is valued at 20d."

The Pitt, or Regent diamond, was purchased by Thos. Pitt, Esq.[b] (grandfather of the Right Hon. William Pitt), when governor of Fort St. George,

[a] London, folio, 1791, p. 75.

[b] Who, it has been stated, in virtue of its possession, obtained the privilege of a seat in the Commons House of Parliament.

Madras, who obtained it for £20,400, the sum of £85,000 having been first asked for it. It cost £5,000 cutting, and the chips and filings were valued at from £7,000 to £8,000. It was purchased by the Regent, Duke of Orleans, during the minority of Louis XV. in the year 1717, for £135,000, £5,000 being expended in the negociation. Its weight is 136¼ carats: and the value, as estimated by a commission of jewellers in 1791, twelve millions of livres.[a] It is almost faultless, and was cut in this country in the form of the brilliant. It is the prime ornament of the crown jewels of France, and is allowed to be the finest in the world, though not the largest. The kings of France wore this diamond in their hats: Napoleon Buonaparte had it fixed in the pommel of his sword. The following item occurs in the third codicil attached to the will of Napoleon Buonaparte, dated 15th April, 1821. "1°. Parmi les diamans de la couronne qui furent remis en 1814, il s'en trouvait pour 50,000,000 de livres qui rien étaient pas, et faisaient partie de mon avoir particulier, ou les fera rentrer pour acquitter mes legs." We have been informed that Charles X. would have willingly laid claim to it, and brought it with him, but it was taken from

[a] At Djidda, Hussein Aga said that the value of one of the jewels of Napoleon's crown, was worth seven years revenue of Egypt!

his person on leaving Paris. The diamond may be certainly considered a portable form of property, and, in a general point of view, not liable to very variable fluctuation. The regent diamond, report says, was played with such success before the king of Prussia, by the wily Seyez, as to produce for the service of France, 40,000 horses with their equipments. This diamond, it has been stated, was found in Malacca, in the famous mine of Porteal, in the kingdom of Golconda. Its form is somewhat round, an inch broad, 1, 1-6th of an inch long, and $\frac{3}{4}^{ths}$ of an inch thick.

This diamond seems to have subjected the purchaser, Governor Pitt, to the imputation of having unfairly obtained possession of the prize. One account was, that a slave having found it in its native bed, concealed the diamond in a wound made in his leg for that purpose. Such a gash as would have imbedded or concealed it in its rough or even its polished form, must indeed have been extensive! In the *Journal des Savans*, for July, 1774, p. 553, is inserted an extract from the letter of a French missionary, to the following effect:— that one of the principal diamonds of the crown of France, and which was purchased of an Englishman, was one of the eyes of the god *Jagrenat*, a famous idol, placed in the pagoda at *Chandernagar*, in Bengal. That the said idol, *Jagrenat*, had since

continued with only one eye; and moreover, that the French had done all they could to blind him entirely, but have not succeeded, since it was better guarded. This is evidently a version of the history of the diamond of the Russian sceptre, with which it seems to be confounded. Thomas Pitt, esq. (of the family of Blandford, in the county of Dorset,) governor of Fort St. George, in the East Indies, in the reign of Queen Anne, felt and repelled calumnies which had not even the shadow of a basis to rest upon. Mr. Pitt, however, condescended to reply to these insinuations in a letter addressed to the editor of the "Daily Post," dated 3d November, 1743, in which, after censuring the unparalleled villainy of William Fraser, Thomas Frederick, and Smapa, a black merchant, who brought a paper before Governor Addison, in council, to the intent that he had unfairly got possession of a large diamond; he proceeds, after, as we conceive, unnecessary protestations and appeals to all that is sacred, to enter on the detail of the circumstances connected with the transaction by which he became possessed of it, and thus continues:—

"About two or three years after my arrival at *Madras*, which was in July, 1698, I heard there were large diamonds in the country to be sold, which I encouraged to be brought down, promising

to be their chapman, if they would be reasonable therein; upon which, Jamchund, one of the most eminent diamond merchants in these parts, came down, about December, 1701, and brought with him a large rough stone, about 305 mangelms, and some small ones which myself and others bought; but he asking a very extravagant price for the great one, I did not think of meddling with it: when he left it with me for some days, and then came and took it away again, and did so several times, insisting upon not less than 200,000 pagodas; and, as I best remember, I did not bid him more than 30,000, and had little thoughts of buying it for that. I considered there were many and great risks to be run, not only in cutting it, but whether it would prove foul or clean, or the water good; besides, I thought it too great an amount to venture home in one bottom; so that Jamchund resolved to return speedily to his own country; so that, I best remember, it was in February following he came again to me, (with *Vincaty Chittee*, who was always with him, when I discoursed him about it,) and pressed me to know whether I resolved to buy it, when he came down to 100,000 pagodas, and something under, before we parted, when we agreed upon a day to meet and to make a final end thereof one way or other, which I believe was the latter end of the aforesaid month, or

beginning of March, when we met in the consultation room; when, after a great deal of talk, I brought him down to 55,000 pagodas and advanced to 45,000, resolving to give no more, and he likewise not to abate, so delivered him up the stone, and we took a friendly leave of one another. Mr. Benyon was then writing in my closet, with whom I discoursed what had passed, and told him now I was clear of it; when, about half an hour after, my servant brought me word that Jamchund and Vincaty Chittee were at the door, who, being called in, they used a great many expressions in praise of the stone, and told me he had rather I should buy it than any body; and, to give an instance thereof, offered it for 50,000. So, believing it must be a pennyworth if it proved good, I offered to part the 5000 pagodas that were between us; which he would not hearken to, and was going out of the room again, when he turned back, and told me I should have it for 49,000; but I still adhered to what I had before offered him, when presently he came to 48,000, and made a solemn vow he would not part with it for a pagoda under; when I went again into the closet to Mr. Benyon, and told him what had passed, saying, that if it was worth 47,500, it was worth 48,000; so I closed with him for that sum, when he delivered me the stone, for which I paid him

honourably, as by my books doth appear." The letter concludes with renewed appeals to the Deity, in a tone entirely objectionable; it closes thus:—"Written and signed by me, in Bergen, July 29, 1710. THOMAS PITT."

The whole transaction affords a good example of what is in common *parlance* termed, "driving a hard bargain;" but the sum was a serious one, and the risk very considerable: flaws, specks, cross-grains, &c., which could only become apparent after the stone was cut, might have made it even a serious loss. Calculating the pagoda at 8s. 6d., the rough stone thus cost £20,400 sterling, no trifle, certainly: the sum first asked was £85,000. Mr. Salmon, who was on the spot at the time the transaction took place, verifies this statement. It appears that this celebrated diamond was consigned by Mr. Pitt to Sir Stephen Evance of London, Knight, and from an original bill of lading, that it was sent in the ship *Bedford*, Captain John Hudson, Commander, March 8, 1701-2, and charged to the captain at 6,500 pagodas only. The editor of the *Museum Britannicum* states that the cutting and polishing of the stone cost £5,000. Jeffries states that it was sold for £135,000, but £5,000 of this sum was given and spent in negociating the sale of it. The diamond is admitted to approach very nearly to one

of the first water—Jeffries says that it has only a foul small speck in it, and that lying in such a manner as not to be discerned when the stone is set. He describes the mistakes in the cutting of the gem, and also states how it may be improved. There is a model of the "Pitt," or "Regent" diamond in the British Museum, and on the silver frame which surrounds it, is engraved, "This is the model of Governor Pitt's diamond, weight 136½ carats: was sold to Louis XV. of France, A. D. 1717." I have understood that the value of the *wood* alone, now growing on the estate purchased by the price of the gem thus sold, exceeds the amount obtained for it, so that it has been supplanted by *carbon* of another kind. There is a model of the Pitt diamond in its original rough form in lead, in the British Museum. According to Patrin, the Pitt or Regent diamond was carried to Berlin.[a]

The Sanci diamond has been lately purchased by Demidoff, the Emperor of Russia's grand almoner, for 500,000 roubles. This diamond was originally brought from India, and has remained in France for the last four centuries. Charles the bold, Duke of Burgundy, wore it in his helmet at the battle of Nancy, near the Lake Morat, in

[a] See Williams on the Mineral Kingdom, by Miller.

Switzerland, in 1475, and in which he fell. He is represented in the vignette of a MS. in the Bibliotheque Royale, wearing in his hat that which was afterwards taken in his baggage by the Swiss, after the battle of Grandison. It was found by a Swiss soldier among the spoils of the battle, and sold to a Priest for a florin (1s. 8d.), who afterwards disposed of it for three francs (2s. 6d.) We subsequently, in the year 1489, trace the Sanci diamond to the possession of Antonio, king of Portugal, who being in want of money first pledged it for 40,000 livres, and afterwards disposed of it entirely for the sum of 100,000 livres, to a French gentleman of the name of De Sanci. Nicolas Harlai de Sanci had it afterwards by succession. At the time of the Baron de Sanci's embassy at Souleure, Henry III. requiring money to recruit his forces, borrowed the diamond in order to pledge it for a sum of money, and it was entrusted to a confidential servant who was waylaid and assassinated by a band of robbers. The body, however, after some search, was found buried in a wood, and on being opened, discovered the gem, the servant having swallowed it at the first onset. Baron de Sanci afterwards disposed of it to James II. of England, in 1688, when he had escaped to France, and remained at St. Germains. From him it passed to Louis XIV., and Louis XV. wore

it in his hat at his coronation. Its form is somewhat pear shaped, and is of the purest brilliancy. It weighs 53½ carats, and according to Dutens cost £25,000. I obtained an accurate and beautiful model of it from the jeweller to the Queen of the French.

The Piggott diamond was brought to England by Earl Piggott, when Governor-General of India. It was disposed of by lottery, in 1801, for £30,000. It weight is 47½ carats. This diamond was purchased from Rundell, Bridge, and Rundell, for the sum of £30,000, for Ali Pacha, and a special messenger appointed to receive it. He always wore it in a green[a] silk purse, attached to his girdle. When Ali Pacha was mortally wounded by Reschid Pacha, he immediately retired to his Divan, and desired that his favourite wife, Vasilika, should be poisoned, and gave the diamond to Captain D'anglas, with orders that it should be crushed to powder in his presence, which was forthwith obeyed, and the beautiful gem utterly destroyed. Vasilika still lives, but the *model* of the diamond alone remains. The too obedient officer bitterly regretted his folly; and the destroyed diamond haunted him in his dreams for months afterwards.

The Nassuck diamond, which weighs 357½

[a] The *sacred* colour of the Prophet.

grains, was captured by the combined armies under the Marquis of Hastings, from a Peshwa, or feudal chieftian, of the Marhattas, during the Marhatta war. It was sent, I am informed, as the individual present of the Marquis of Hastings to the East-India Company, but was eventually given up, and formed part of the Deccan booty. It has remained for ten years in the possession of Rundell, Bridge, and Rundell; and was disposed of by public sale, in London, in July 1837, for the sum of £7,200, to Emanuel, Brothers. Its weight is stated to be 89¾ carats. The amount realized by the sale of the Nassuck diamond scarcely amounted to one-third of its previously estimated amount.

The Nassuck diamond, and the diamond earrings presented by the Nabob of Arcot to the late Queen Charlotte, together with the brilliant brooch, purchased by Emanuel, of Bevis Marks, were disposed of in August, 1837, to the Marquis of Westminster, and the latter two presented to his lady as a birth-day present. The Arcot brilliant earrings, weighing 223½ grains, were sold to Emanuel for £11,000. At the same sale, which took place at Willis's lower room in King-street, St. James's, London, among other costly articles of jewellery disposed of, were the following. I. A drop shaped brilliant, weight 40 grains, which formed part of

the decoration of the order of Saint Esprit, worn by Louis XVI., and purchased for £450 by Blogg. II. A pair of ear-ring brilliants, worn by Marie Antoinette, weight 100½ grains, purchased for £1,775 by Rosslyn. III. A rose diamond, weight 63 grains, which formerly belonged to the Sultan Selim, and bought by Barber for £1,300. IV. A superb brilliant, weight 108 grains, once the property of Joseph Buonaparte, and purchased by Morton for £2,100.

At the drawing-room, on the Queen's birth-day, immediately succeeding her ascension to the British throne, the Marquis of Westminster wore the Nassuck diamond on the hilt of his sword, and the Marchioness intended, on the same occasion, to have worn the 'Arcot' diamonds, but indisposition prevented her attendance.

Holland has a diamond of 36 carats, valued at £10,368: and we believe it is of a conical shape. Tuscany has also one of considerable value, but of irregular shape. Persia has several diamonds; four large ones, of a rose-cut, besides brilliants. The 'Deriâ-e-Noor,' or, *Sea of Light*, weighs 186 carats, and is considered to be a diamond of the finest lustre in the world. The 'Tâj-e-Mâh,' or *Crown of the Moon*, is also a splendid diamond; it weighs 146 carats. These two are the principal in a pair of bracelets valued at near a million sterling.

Those in the crown are also of extraordinary size and value.[a] The 'Sea of Glory' weighs 66 carats; worth £34,848: and the 'Mountain of Splendour,' weighing 135 carats, is valued at £145,800.

The 'Hornby diamond,' brought from the East Indies by the Hon. William Hornby, governor of Bombay, in 1775, weighs 36 carats, and is now, I believe, the property of the Schah of Persia. The table diamond, belonging to Russia, weighs 68 carats. The round brilliant of Portugal weighs 215 carats, is extremely fine, and has been estimated at 396,800 guineas.

For the following interesting account, which I give entire from his manuscript, I am indebted to the late Mr. Whittaker, a son of the Historian of Craven,—long in India. The detail possesses additional interest from our present alliance with Runjeet Singh. It will be perceived that the two diamonds which are referred to, are by no means 'the largest known,' and the 'Koh-i-Toor,' plundered by Nadir Schah, safely reposes among the crown jewels of Russia, weighs 193 carats, and is valued at £369,800.

The Koh-i-noor, or mountain of light, is believed by the Hindoos to have descended from their mythological heroes. It is one inch and a

[a] Sketches of Persia, London: 1838. Vol. II. p. 139.

half long, one inch broad, and rises half an inch above its gold setting. It weighs 280 carats, and is said to have weighed when rough, 793 carats. This diamond is set in an amulet with a diamond on each side, about the size of sparrows' eggs. Runjeet Singh has also a ruby of considerable size, with the names of several kings engraved on it, and among others those of Aurungzebe and Achmed Schah. He has also a topaz as large as a billiard ball, for which he paid 20,000 rupees. The musnud of Aurungzebe was of solid gold, and with the peacock ornament richly studded with jewels, which crowned it, was estimated at twenty millions of gold. Over the palace at Delhi was this inscription 'If there be heaven on earth, it is here—it is here.'

"The Prince Aulumgeer in 1658, deposed his father, Schah Jehan, emperor of Delhi, and usurped his throne. He caused to be constructed the famous "Tukht-*i*-taoos," or Peacock throne; which represented in appropriate jewels a peacock with its head overlooking, and its raised and spread tail overshadowing, the person of the emperor when sitting on the throne. The natural hues of the bird were exquisitely imitated by the richest gems of the world, and the eyes were supplied by two celebrated diamonds, the largest known, called (as every Asiatic double name

must have a gingle,) "Koh-*i*-noor," the mountain of light, and "Koh-*i*-Toor," the mountain of Sinai. Having completed this throne, relinquishing the name of Aulumgeer, or "Grasper of the Globe," he assumed that of Aurungzebe, or "Ornament of the Throne." He died in 1707, aged 87, and his throne remained in possession of his successors till 1728, when Nadir Schah invaded Indostan, took and plundered Delhi, and massacred 125,000 men, women, and children. Together with sixty millions of other plunder, he carried off, and broke up the Peacock throne, but being assassinated on his return towards Persia in 1729, his treasures fell to his general, Ahmed, chief of the Abdalli Afghans, of Caubul, called also the Doorani, from each man wearing a Door, or pearl in the right ear. He seized on the throne of Caubul, in the confusion of this exploit, the Koh-*i*-Toor was for ever lost. He kept possession of the Koh-*i*-noor, and dying, bequeathed it to his son and successor Schah Timour, who left it with his crown to Schah Zemaun, his eldest son. He was deposed and his eyes put out by his next brother, Schah Shujah ool mooolk, who got the Koh-*i*-noor and the kingdom. He in his turn was ejected by Schah Mahmoud, the third brother, who now is Schah, or king of Caubul. Shah Shujah, however, retained possession of the diamond, and

he and Schah Zemaur whom he had blinded, took refuge at the court of Runjeet Singh, the Rajah of Punjaub, in Hindostan, who at first received them hospitably, and made war on the usurper, Schah Mahmoud, from whom he took Cashmere, *for himself,* which he now holds. But in a short time Runjeet began to oppress the two ex-kings, extorted all their wealth, and finally the Koh-*i*-noor from them. They then came over to Loodianah, in our territory, where they now exist on an annual pension of 60,000 rupees (£6000) each, and 6000 rupees (£600) to each of their eldest sons. I saw them at Loodianah, on the Hyphasis, in 1821. Runjeet Singh has the diamond at Lahore, his capitol. A Bengallee Shroff, or banker, named Seelchurd, resident at Loodianah, having occasion to visit Lahore on the Rajah's business, asked his highness for permission to see the jewel, which being granted, Seelchurd fell on his face and worshipped the stone!"

When Mr. Mawe was in the Brazils, two large slabs of diamonds were shown him, each an inch superficies, and $\frac{1}{8}^{\text{th}}$ of an inch thick, from the river Abaité. The Brazilian treasury is extremely rich in diamonds of great magnitude and beauty, such as the Portugal round brilliant, 'Slave diamond,' and others. There are blue diamonds, but of inferior size, generally impure and with

flaws.[a] In the walking-stick of King John VI., which is a Brazilian cane, and the handle of which is of wrought gold, there is a beautiful brilliant surmounting its summit, and cut in the form of a pyramid, valued at about £30,000 sterling. The tassels consist of numerous orders, and are attached to variously coloured ribbons. The buttons on the silken robe of King Joseph I. of Portugal, worn as a court dress, are twenty in all, each a brilliant; the aggregate value of these amounts to £100,000: we believe that they were, not many years ago, sent to this country and tendered as a bribe, and of course indignantly rejected.

We were informed by a gentleman (who saw it in Mr. E's possession) that a brilliant of 34 carats, set in a ring, was sold by Mr Eliason to Napoleon Buonaparte for £8000, to be worn on his wedding day, when married to the empress Josephine. It was not, however, a diamond of the first class.

There do not seem to be any diamonds among the crown regalia of Hungary, which are preserved

[a] Near the mint at Rio, is the establishment for cutting diamonds. Along the walls fourteen presses are arranged, with two horizontal wheels attached to each. The wheels communicate with steel cylinders, and the diamond embedded in an alloy of lead and tin is placed on the point of an iron handle. The cylinder is supplied with diamond dust, and the diamond pressed down against it. When Dr. Walsh was at the Brazils, government had advertized the sale of diamonds to the amount of £400,000.

in an iron chest in the arsenal of the citadel of Ofen. Here, however, is the identical crown worn by Stephen 800 years ago; and ever since 1799, these have been watched by two keepers, night and day. The crown is of pure gold, and weighs 9 marks 6 ounces (14lbs.,) and the precious stones, &c. consist of *fifty-three sapphires, fifty rubies, one emerald,* and *three hundred and thirty-eight pearls.* The imperial sceptre resembles a mace in form, and is ornamented with a tip of crystal set in solid gold. No sovereign of Hungary is legally invested with royal power and dignity until the diadem has been seated on his brow. It is shown to the populace three days prior to, and three days after the coronation.[a]

The dress of Henry VIII. and his Queen, on their procession to the Tower, previous to coronation, are described by Hall:—"His grace wared in his uppermost apparaell, a robe of crimsyn velvet, furred with armyns; his jacket or cote of raised gold; the placard embrodered with diamonds, rubies, emerauds, greate pearles, and other riche stones; a great banderike about his necke of large bolasses. The Queen was apparelled in white satyn, embrodered; her haire hangying down to her backe, of very great length, bewteful

[a] Journal of a Nobleman.

and goodly to behold; and on her head a coronall, set with many riche orient stones."

The finest ruby among the British crown jewels is more treasured for its antiquity than its intrinsic value. It was worn at Cressy and Agincourt, by the Black Prince, and Henry V. The crowns of William IV. and Queen Adelaide were broken up, and from their ruin the crown of QUEEN VICTORIA was constructed. In the royal crown, I perceive that the celebrated *ruby*, formerly belonging to the Black Prince, occupies the centre of the Maltese cross above the sapphire. The diamond necklace presented to the Queen by Reschid Pacha, on behalf of the Sultan, is reported to contain some of the finest diamonds that have been seen in this country, and its estimated value exceeds £5,000.

It has been stated that the Czar Peter, with his whole army, when surrounded by the Turks, owed their safety to the fascinating and dazzling splendour of the diamonds of the Empress; and even Prince Potemkin amused the tedium of the latter years of his life by contemplating the magnificent display of his costly diamonds.[a]

[a] Lady Nelson was some years ago robbed of her jewels, not an unfrequent exploit in modern times, but a beautiful and costly aigrette of diamonds, presented by the Grand Seignor to the late Lord Nelson, valued at more than £20,000, happily escaped. It

The *penchant* for this costly decoration of the person, has often been carried to a monomaniac excess, and sometimes even led to the 'road to ruin.' A London lapidary, however, not long ago, informed me, that he had been employed to remove the *gems* from the dresses of some of our *noblesse*, and substitute for them paste and inferior stones.

Juvenal adverts to a diamond purchased at Rome, for an *adventitious* value, from having been worn by a *distinguished* personage.

> "Grandia tolluntur crystallina, maxima rursus
> Myrrhina, deinde adamas notissimus et Berenices,
> In digito factus pretiosior."[a]

It is said that Agnes Sorel was the first female in France who wore a diamond necklace. These diamonds were so rough, so ill-set, and produced so ill an effect, and so much inconvenience to the neck of Agnes, that she used to call it her iron collar. She wanted to get rid of it, till Charles VII., from whom she doubtless had it, and who was pleased to see her handsomely decorated, prevailed on her to retain it. The gentle Agnes obeyed; and many ladies have, no doubt, since then, acted in the same manner. But diamonds

had been carelessly wrapped up in a piece of brown paper, and occupied the corner of a trunk.

[a] Juvenal. 6. 154.

at that time did not possess the monopoly of pleasing them; and since the time of Agnes, the mode of wearing jewels has very often changed. Pearls were the favourite ornaments of Catherine of Medici, and Dianne of Poitiers. Mary Stuart having brought some superb diamonds into France, the ladies of the court resumed the wear of them. At the coronation of Mary of Medici, her robes were loaded with pearls. It was the custom at that time to put strings of them into the hair, which fell in knots over the shoulders. Under Louis XIV. the taste for diamonds revived, and the fêtes given by that sumptuous monarch entirely restored the fashion of wearing this brilliant ornament. Robes were embroidered with them; necklaces, aigrettes, and bracelets were made of them; and they were even employed to ornament the front of stomachers. The queen wore them on the waistband, on the epaulettes of her robe, and on the brooch of her mantle. This rage for diamonds continued till the approach of the Revolution.

The Infanta Donna Isabel Maria gave to Don Miguel, five or six bags of brilliants, the property of the state and not that of the sovereign. The aggregate amount was said to be 2,400,000,000 reis! It is to be feared that the sanguinary drama in which Don Carlos bears so conspicuous a part,

and the guerrila hordes headed by Miguelite officers, have a close alliance with the produce of these gems. It is said that Italy is now inundated with diamonds, whence came they? The monasteries and nunneries in Spain and Portugal may not have been entirely despoiled by hostile bands. Diamonds are not only a costly but a very *portable* species of property. A short time ago Don Miguel sent two of his diamonds from Rome to Paris, where they were sold for 90,000 francs, or for the sum of £3,700 sterling.

The following anecdotes may be added as illustrative of two singular adventures in the economy of the diamond.

The diamond mines of the Brazils were discovered about the middle of the last century. Many *curious bright stones* were discovered by some miners when in search of gold. They were used as COUNTERS FOR CARDS, and some being sent to Lisbon, their real value was soon discovered and determined.

In July, 1838, a Jew dealer living in Long-lane, Smithfield, purchased a diamond of great beauty, which after keeping a few days, he sold to another dealer for £18. This man who possessed considerable sagacity in matters of the kind, soon after disposed of it for £50. It then obtained notice in a higher and more respectable market,

and a jeweller living near Aldgate Pump becoming its owner, sold it to a celebrated and extensive firm on Ludgate Hill for £260, and it has since realized a sum exceeding 400 guineas.

Hadyn was stimulated, it is said, to his musical compositions by the glances refracted from the diamond presented to him by Frederick the Great, of Prussia; and it may have been for some such reason that Paganini studded his violin bow with two small brilliants. About half a century ago, the diamond necklace of the ill-fated Marie Antoinette excited considerable sensation throughout Europe, and now forms the subject of a melodrama. Its entire history is full of romance. The reader is referred to the memoirs of that ill-fated Queen, by Madame Campan, for singular details connected with the event. Among the adventures of the diamond, it may be remarked that it has sometimes figured in the annals of gallantry, as the following extravaganza will prove. In the time of Louis XIV., Madame de Blot said to the Prince de Conti, that she wished for the portrait of her canary, in a ring, but strictly enjoined it should be perfectly plain. It was at length presented, covered with a large *diamond*, ground thin and forming a concavo—convex covering. When it was discovered, it was returned to the Prince de Conti, who ground it to powder, and used it

instead of sand to dry the ink of his haughty rejoinder.

Without stating my several repetitions of the experiments of others, I may now superadd a description of such as have been made independently of these :—

1. Two cages of platinum wire, containing diamonds, were connected by the same wire, and, with the two poles of a powerful galvanic battery, by similar metallic wire; but though the wire immediately connected with the poles were ignited, the cages were not, and the connecting wire in the centre remained unkindled.

2. When these were severally suspended from each pole and brought in contact with the surface of mercury, they were not kindled, but when one pole was plunged into the liquid metal, and the cage containing diamonds, attached to the other pole, was made to touch the surface of the mercury, the ignition of the platinum and combustion of the diamond was vivid and beautiful.

2. A platinum cage, containing several diamonds, was suspended in a globe of oxygen, by means of two copper wires, and finally connected with a powerful galvanic battery; but the cage remained still unignited, from the multiplicity of the platinum wires that traversed each other in the tissue which formed the cage.

4. I have succeeded, by various simple methods, to effect the combustion of the gem; thus it may be easily ignited by the flame of ether, &c., and when quickly introduced into a medium of oxygen, the combustion will continue—or a small cup containing a few drops of ether, or sulphuret of carbon, &c., suspended to the cage, and kindled, will support the ignition a sufficient period for its continued combustion in oxygen afterwards; or the cage of platinum may be ignited by a thread of fine steel wound round the cage, its lower extremity being kindled by a bead of melted sulphur applied to it.

5. The following is a very elegant, though less simple, method of shewing the combustion of the diamond:—On a minutely perforated cup, or shallow disc, containing spongy platinum, with the diamond partially embedded into it, is propelled a small stream of the gas, by means of a minute jet connected with a bag of hydrogen: this ignites the platinum, and with it the diamond, in the medium of oxygen into which, by a lateral orifice, it had been previously introduced; and when once kindled, it will continue to burn after the appendages of hydrogen, &c., are screwed off and removed.

6. The succeeding we have found a very elegant experiment:—Two diamonds enclosed in a cage of

platinum of one-hundreth part of an inch diameter, after having been previously ignited by the flame of a spirit lamp, were introduced into the mixed vapour of sulphuric ether, and atmospheric air, incumbent over liquid ether, in a wide-mouthed glass cylinder; the ignition continued intense and beautiful, and the diamonds continued to burn. When lifted out of the vapour, the ignition of the platinum cage ceased, but the diamonds continued red hot, so that when re-introduced, the cage was thereby re-kindled, and the beautiful phenomenon perpetuated.[a]

Having placed some diamond powder in a cavity of pumice-stone, and brought the inflamed jet of the mixed gases in the oxy-hydrogen, or compound gas blowpipe to play upon it, the entire powder was instantly inflamed, and dispersed into the air in the form of brilliant stars. On another occasion, I imbedded a fragment of diamond in a nidus of hydrate of magnesia, and having submitted it to the intense flame of this powerful, though dangerous instrument, the diamond parted suddenly into minute fragments, displaying on their surfaces, as

[a] When the diamond is burnt in a cage of platinum, as Mr. Herapath, of Bristol, informs us, the marks of the wires are left impressed on the diamond. The conjoined temperature of both fuses the platinum, if of fine diameter.

determined by the lens, the *conchoidal* fracture, and became as black as jet.

In 1818, I succeeded in fusing the diamond, an experiment since successfully repeated by Professor Siliman, of New York, who has assigned the priority to me. In this case, the diamond was fixed in a fragment of pumice-stone, and the compound-gas flame made to bear for a continued period on a specific spot; the portion in immediate contact with the apex of the flame, entered into complete fusion, assuming an appearance somewhat spherical, as if it were in relief from the walls of the cavity, evidently in a state of liquid motion, and exhibiting a vivid halo of intense light at this particular point.

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