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A

TREATISE

ON

DIAMONDS and PEARLS.

IN WHICH

Their IMPORTANCE is conſidered:

AND

Plain RULES are exhibited for aſcertaining the Value of both:

AND THE

True Method of manufacturing DIAMONDS.

By *DAVID JEFFRIES*,

JEWELLER.

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TO THE

KING.

SIR,

I Beg leave, with the profoundeſt humility, to dedicate the following treatiſe to your *Majeſty*, the patron of truth

and juſtice, and friend to the common intereſt of mankind, more particularly to that of your *Majeſty*'s ſubjects: In which your royal character ſhines with the brighteſt luſtre.

It contains rational and plain rules for eſtimating the value of Diamonds and Pearls under all circumſtances, and for manufacturing Diamonds to the greateſt perfection: Both which have hitherto been but very imperfectly underſtood. From hence, all property of this kind has been expoſed to the greateſt injury,

injury, by being ſubject to a capricious and indeterminate valuation; and the ſuperlative beauty of Diamonds has been much debaſed.

To countenance a work calculated to promote a general benefit, it is humbly apprehended will not be deemed unworthy the condeſcenſion of a *Crowned Head*, as theſe Jewels conſtitute ſo large a part of publick wealth; and, as they are, and have been in paſt ages, the chief ornaments of great and diſtinguiſhed perſonages, in moſt parts of the world.

DEDICATION.

That the ſupreme Diſpoſer of all things may long preſerve your *Majeſty*, the guardian of the commerce and properties of theſe your kingdoms, and that you may continue to reign in the hearts of a grateful and loyal people, is the fervent prayer of,

May it pleaſe your Majeſty,

Your Majeſty's *moſt dutiful,*

And moſt faithful Subject,

David Jeffries.

TO THE

READER.

AS *the following Treatiſe is calculated to inform the world concerning the value of* Diamonds *and* Pearls; *the weights made uſe of relative thereto, are here previouſly explained, as the knowledge of them will be found neceſſary to the Publick. They agree the neareſt to* Troy-weight *of any other, and are commonly called carrat weights*; 150 *carrats make about an ounce of that weight.*

Carrats are divided into halves, quarters, or grains; eighths, ſixteenths, and thirty-two parts.

The draughts of the ſizes of Brilliant *and* Roſe Diamonds, *exhibited in the plates, are teſts to prove the truth and defects of the manufacture of any* Diamond, *and will be found as neceſſary as ſcales and weights, in attaining to a right judgment of their value. To make the truth of this aſſertion appear more evident, it is here to be obſerved*; Firſt, *That either a* Brilliant *or* Roſe Diamond, *may be wrought in ſuch a manner as to contain one-fourth, or even one-third, more weight than it ought to have, which neceſſarily injures the beauty of its form, and likewiſe injures its true ſpirit and luſtre*; *and,*

if

if that over-weight be injudiciouſly valued, together with its due weight, the price will be thereby greatly heightened above its juſt value, more eſpecially in large Diamonds. *All which over-weighted* Stones *will eaſily be diſcovered by the ſizes exhibited in the plates, which exactly ſhow the true expanſion of well wrought* Diamonds.

Secondly, *It is to be obſerved, that the ſizes before referred to will diſcover if any* Stones *do not carry their true ſubſtance. An important circumſtance to be regarded, inaſmuch as any degree of want thereof, neceſſarily leſſens the ſpirit and luſtre they would otherwiſe be poſſeſſed of. In both caſes, directions are given in the treatiſe, in what manner every ſuch* Stone *is*

to be valued, as well as all other well proportioned ones, according to their water, and ſeveral degrees of perfection, or imperfection, of what ſize or weight ſoever.

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An Explanation of ſome TECHNICAL TERMS *made uſe of in this Treatiſe, in alphabetical order.*

THE *Bezils* are the upper ſides and corners of the *Brilliant*, lying between the edge of the table and the girdle.

The *Collet* is the ſmall horizontal plane, or face, at the bottom of the *Brilliant*.

The *Crown* is the upper work of the roſe, which all centers in the point at the top, and is bounded by the horizontal ribs.

The *Facets* are ſmall triangular faces, or planes, both in *Brilliants* and *Roſes*. In *Brilliants* there are two ſorts, *ſkew* or *ſkill* facets, and *ſtar* facets. Skill-facets are divided into *upper* and *under*. Upper ſkill-facets are wrought on the lower part of the Bezil, and terminate in the girdle; under ſkill-facets are wrought on the pavilions, and terminate in the girdle; ſtar-facets are wrought on the upper part of the bezil, and terminate in the table.

The *Girdle* is the line which encompaſſes the Stone, parallel to the horizon; or, which deter-

determines the greateſt horizontal expanſion of the Stones.

Lozenges are common to *Brilliants* and *Roſes*. In *Brilliants* they are formed by the meeting of the ſkill and ſtar facets on the bezil: In *Roſes*, by the meeting of the facets in the horizontal ribs of the crown.

Pavilions are the under ſides and corners of the *Brilliants*, and lie between the girdle and the collet.

The *Ribs* are the lines, or ridges, which diſtinguiſh the ſeveral parts of the work, both of *Brilliants*, and *Roſes*.

The *Table* is the large horizontal plane, or face, at the top of the *Brilliant*.

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INTRO-

INTRODUCTION.

DIAMONDS, and Pearls being, of all Jewels, of the greateſt importance to this, and moſt nations of the world, juſtly demand the higheſt regard of any; inaſmuch as they conſtitute the largeſt ſhare of wealth of this kind, and are the chief ornaments of great and diſtinguiſhed perſonages: More eſpecially Diamonds, as being the moſt beautiful and valuable of all. On which account, as I have been above

thirty years a conſiderable trader in them, and a manufacturer of Diamonds, I have ſtudiouſly employed great part of my time in ſearch of rules to aſcertain the value of both under all circumſtances, whatever be their weight and magnitude; and likewiſe, for manufacturing Diamonds to the greateſt perfection. And apprehending that I have fully ſucceeded; for the promotion of the commerce, and for the benefit of the publick, I have exhibited, in this treatiſe, means by which the inquiſitive may attain to a right knowledge in theſe matters; and more eſpecially concerning thoſe from one carrat weight, to thoſe of one hundred carrats.

The plates of the ſizes of Diamonds, and the tables of the prices of both, are extended no farther than to Diamonds and Pearls, of that weight: They

They might be carried on *ad infinitum*; and the rule of valuing will hold good, tho' they ſhould weigh as much as Governor *Pitt*'s Diamond, purchaſed by the Duke of *Orleans* for the preſent *French* King, which weighs 136 carrats $\frac{3}{4}$, or as three others mentioned by Monſieur *Tavernier*, in the ſecond part of his voyages, *p.* 148, *Engliſh* tranſlation, *viz.* that of the Great Duke of *Tuſcany*, which weighs 139 carrats $\frac{1}{2}$, or that in a merchant's hands, which weighs 242 carrats $\frac{5}{16}$, or that of the Great Mogul, which weighs 279 carrats $\frac{9}{16}$.

If what is contained in this treatiſe be found true, it will confute the notion, that ſome Diamonds and Pearls are ineſtimable, on account of their extraordinary magnitude; which, to this time, prevails, upon the ſuppoſition that no methods can be found to

determine their value; and will likewiſe greatly contribute to ſupport the dignity of the diamond manufacture.

Of the Production of DIAMONDS.

THAT rules may be given for the juſt valuing of Diamonds according to their increaſe in *ſize* and *weight*, is reaſonable to ſuppoſe from this conſideration; that nature has produced in times paſt, as well as it does at preſent, Diamonds in the following manner; *viz.* a vaſt number of ſmall ones, and progreſſively a leſs number of larger. This therefore is a ſufficient foundation for rules to be given for valuing them in proportion to their ſize and weight, which will be found

found hereafter exhibited; and if the uſe and application of them were conformable to the production of nature, the rules thus founded, and preſcribed, would never be interrupted: And therefore, if the humour of the world demands, at any time, more or leſs of any particular ſizes and weights than nature provides, the price obtruded thereby muſt be reckoned the *occaſional*, and not the *juſt* price, and complied with as ſuch; which happens to be the caſe at preſent, by the extraordinary uſe of ſmall Diamonds in the decorations now faſhionable in jewelling. And as the price of theſe ſmall Diamonds will always fluctuate by the alterations of faſhions, little regard will be had in this treatiſe to any, under the weight of one carrat.

It may be alſo obſerved, that the value of *rough Diamonds* from two,

to three carrats, and alſo of *poliſhed Diamonds* from one, to one and a half, do not correſpond with the rules hereafter laid down; the price at preſent being lower than what is aſſerted by the rules; which is acknowledged, and will remain ſo, as long as the humour prevails of ſupplying the place of Diamonds of that weight, by meanly ſetting ſmall Stones in a cluſter in their room, for the ſake of a ſhowy and flaſhy appearance, at a leſs price than Stones of theſe ſizes would admit of; by which means theſe ſizes are leſs uſed than formerly, and become cheaper (the production of nature being always the ſame) and from hence they are depreciated in their value; ſo that the preſent prices of theſe ſizes muſt alſo be reckoned the *occaſional*, and not the *juſt* price.

The

The rules are, nevertheleſs, juſt, uniform, and conſonant to nature; and therefore are here proper to be offered, in order to aſſiſt in coming at the true knowledge of the value of Diamonds of a higher worth, than ſuch as are liable to be affected in their price by the alteration of *faſhions* in jewelling.

Of the Principle of valuing DIAMONDS.

THE *principle*, or *rule* is, that the proportional increaſe, or value of Diamonds, is, as *the ſquare* of their *weight*, whether rough or manufactured. For the explanation whereof, an inſtance is firſt given in rough Diamonds; on which account it will be neceſſary to lay down a general

price, which is ſuppoſed to be 2 *l. per* carrat; meaning, the whole ſpecies, good and bad blended together, which are worthy the expence of manufactury. For example, ſuppoſe the value of a rough Diamond of two carrats, at the rate of 2 *l. per* carrat, ſhould be required; the rule is, firſt, to multiply 2 by 2, which makes 4, the ſquare of its weight; then, multiply the product of 4 by 2 *l*, the price of one carrat, that makes 8 *l.* which is the true value of a rough Diamond of 2 carrats.

Of the waſte or loſs of weight in the manufacturing of DIAMONDS.

TO make this rule applicable to *manufactured* Diamonds, it will be neceſſary to aſcertain what

waſte, or *loſs of weight*, will be ſuſtained in manufacturing them. And here it may be advanced as a matter of fact, that *half* the weight will be loſt; conſequently, doubling the weight of any manufactured Diamond, renders the rule of the ſame uſe to ſhew their value. This loſs is to be underſtood to relate to the general manufactury of Brilliant, and Roſe Diamonds in the moſt perfect manner. To that end, rules are to be offered for a general practice in both kinds of manufactury; which, if conformed to, will be found to exhibit Diamonds in ſuch a manner, as to be productive of greater perfection, and ſaving of weight, than any other ſtandards of practice.

Of

Of Brilliants.

BRILLIANTS are firſt to be conſidered. And the manufactury of *a ſquare* one, is fixed on for the fundamental, and governing rule of practice; nature for the moſt part directing thereto, as it produces abundantly more apparent *ſix pointed* Stones, than Stones of any other form; and becauſe the ſame depth, or ſubſtance, and the ſame manner of proportioning that ſubſtance, which are eſſential in rendering a ſquare Brilliant compleat, are neceſſary in rendering a Brilliant of any other ſhape compleat; and more ſubſtance, or any other manner of proportioning, will be found upon experience prejudicial to the beauty of their form, and the true dignity of their ſpirit and luſtre; compared with

ſuch

ſuch as are made conformable to the following rules.

Of a ſix pointed rough DIAMOND, *and the manner of manufacturing it into a* BRILLIANT.

THE form of *a ſix pointed rough* Diamond is previouſly to be deſcribed; as the ſhape of it is not much known.

It is a figure compoſed of two ſquare pyramids, joined at their baſes, and which form an out-line of a true ſquare. The whole figure is compoſed of eight triangular faces, or planes; four above the baſe, and four below it; all meeting in two points, one at top, the other at bottom; terminating in the poles of the axis, or

line paſſing through the centre of the Stone from top to bottom. Some Stones are found to anſwer this figure very nearly. To make a compleat ſquare Brilliant from ſuch a Stone, if it be not exactly true by nature, it muſt be made ſo by art.

The firſt thing therefore to be done, is to reduce that part, repreſenting the baſe of the two pyramids, to an exact ſquare, which forms what is called *the girdle* of the Stone; and then, work by the ſquare from the girdle, which will produce the two points of the axis; and, if it be truly executed, the length of the axis from point to point, will be equal to the breadth of the ſquare from ſide to ſide. A draught of a ſide view of ſuch a Stone will be found in the firſt plate, N°. 1.

The

The next thing to be done, is to produce *the Table* and *Collet.* In order to which, divide the block into eighteen parts from top to bottom; and then take away from the upper part $\frac{5}{18}$, and from the lower part $\frac{1}{18}$. This gives the upper part, or table ſide, $\frac{4}{18}$ above the girdle, which is $\frac{1}{3}$ of the remaining ſubſtance; and the lower, or collet ſide, $\frac{8}{18}$ or $\frac{2}{3}$; only 12 of the original 18 parts being left in depth. And thus the table and collet are formed; which will be found to bear this proportion to each other, *viz.* the collet will be one fifth of the breadth of the table. In this ſtate it is *a compleat ſquare table Diamond.*

Its different parts are denoted by the letters *a, b, c, d, e.----a,* ſhews what is uſually called *the table* of the Stone, which is an horizontal plane at the top; *b,* the upper ſides or *biſils*; *c, the girdle,*

girdle, which ſhews its expanſion; *d*, the under ſides or *pavilions*; *e*, *the collet*, which is a ſmall horizontal plane at the bottom. The prick'd lines above the table, and thoſe below the collet, ſhew what has been taken away. A ſide view of one will be found in plate I. N°. 2.

Note, This ſpecies of manufactury has been exhibited time out of mind; and the Brilliant, which is an improvement upon it, has been introduced within the laſt century; as will appear to thoſe who ſhall give themſelves the trouble of an enquiry. But this not being eſſential to the preſent undertaking, (which will be purſued with the utmoſt brevity) an hiſtorical account of theſe matters is omitted.

This is the foundation of *a ſquare Brilliant*; and, in order to render it *a perfect Brilliant*, each *corner* muſt

muſt be ſhortened $\frac{1}{20}$th part of its diagonal ; and then the *corner ribs* of the upper ſides muſt be flattened, or run towards the centre of the table $\frac{1}{60}$ leſs than the ſides ; and the lower part, which terminates in the girdle, muſt be $\frac{1}{8}$ of one ſide of the girdle ; and each corner rib of the under ſides, muſt be flattened at the top, to anſwer the above flattening at the girdle ; and at bottom muſt be $\frac{1}{4}$ of each ſide of the collet. A ſide view of one will be found in plate I. N°. 3.

The parts of the ſmall work which compleats it a Brilliant, are called *ſtar* and *skill faſſets*, and are of a triangular ſhape. Thoſe which join to the table are *the ſtar* faſſets, thoſe which join to the girdle *the skill* faſſets. Both of theſe partake equally of the depth of the upper ſides from the table to the girdle, and meet in the middle

of

of each ſide of the table and girdle, as alſo at the corners; and thus they produce regular *Lozenges* on the four upper ſides and corners of the ſtone. The *triangular* faſſets on the under ſides joining to the girdle, muſt be half as deep again as the above faſſets, to anſwer to the collet part; that is to ſay, in the proportion of three to two. A draught of a Brilliant rendered compleat, will be found in Plate I. N°. 4.

Under the before-mentioned draughts, are repreſented four compleat Brilliants in an horizontal view, by double draughts, weighing 36 carrats each. N°. 5. is *a ſquare*, N°. 6. *a round*, N°. 7. *an oval*, N°. 8. *a drop*. The left-hand draughts regard their upper parts, and thoſe on the right their under parts, which are ſuppoſed to be divided at their girdles.

dles. They are thus ſeparately repreſented, the better to ſhow their whole work, and in what manner it ſhould lie; and likewiſe their ſize, or expanſion, and the ſize of their tables and collets.

Note, Their perpendicular depths from table to collet, are ſhewn by the length of the *bars* placed under each double draught. The *octagon* in the middle of the left-hand draught of N°. 5. is the table, which is an horizontal plane, or face, at the top, and is denoted by the letter *a*. The triangular faſſets adjoining to the table are *ſtar faſſets*, and are denoted by the letter *b*. Thoſe adjoining to the extream part, or outlines, are *skill faſſets*, and are denoted by the letter *c*. Theſe, meeting in the middle of the upper ſides, and corners of the ſtone, form figures of a *lozenge* ſhape round the upper ſides and cor-

ners of the Stone, and are denoted by the letter *d*. The *out-lines* of this, and that of the right-hand draught, are the girdle of the Stone, and are denoted by the letter *e*. The triangular faſſets adjoining to the out-lines of the right-hand draughts are the *under skill faſſets*, and are denoted by the letter *f*. The *lower ſides* are denoted by the letter *g*. The octagon in the middle is the *collet*, which is denoted by the letter *h*; and is an horizontal plane, or face, at the bottom of the Stone. This deſcription ſerves as an explanation of the other three double draughts. All lines within the out-lines of the draughts, are called *ribs* in Diamonds. Theſe draughts, with theſe explanations, will always be found of uſe to give a right idea of *a Brilliant* Diamond. In Plate VI, there is a draught of an inſtrument uſeful in examining the ſize

and

and depth of any Diamond, called a *prover*.

In Plates II, III, IV, V, is exhibited *a liſt* of the draughts of the horizontal repreſentation of 55 *ſquare* Brilliants, from one carrat weight, to an hundred carrats, ranged in a progreſſive order, according to their increaſe in ſize, and weight; which are ſo many teſts to prove the truth, or error, of the manufacture of any Brilliant Diamond. Here it is to be obſerved, that their *depths* are expreſſed by the length of the bars placed under each draught; and *the ſize* of their *collets*, by the octagons under the bars, in order more diſtinctly to diſcern their ſeveral parts. The numerical figures on the left-hand of each draught, regard their *number*; thoſe on the right hand, their *weight*.

The reaſon why the number of ſizes is not more multiplied, is, leſt the progreſſion of increaſe in ſize ſhould not be diſcernable; and, by that means ſhould create too great a difficulty in adjuſting the degrees in which any ſtone departs from truth. And this the rather, on account of other ſtones differing in their ſhapes at the *table*, *girdle*, and *collet*, from thoſe of *ſquare Brilliants*; which increaſes, in ſome meaſure, the difficulty of determining any difference to a great nicety; the uſe of the ſizes being to expoſe any conſiderable, or groſs departure from truth, and to prevent the carrying on the *baſe* and *heavy* manufacture, which has of late prevailed in an extravagant degree, to the great diſparagement of the Diamond ſpecies; and has contributed, likewiſe, to a great deception, and impoſition on the pub-

publick. It may with truth be ſaid, regarding *ſmall Stones* (which means Stones under the weight of a carrat) that, in general, they are ſo ill made as to be void of their true beauty in all reſpects; and, by reaſon of their cloſeneſs, or want of due expanſion, they will not fill up, by one fourth, the ſame ſpace as well made Stones do in a piece of jewelling work. Conſequently, they are ſo much leſs in appearance; and, as they retain one fourth more weight, than well made Stones of the ſame expanſion; and, as they are wrought for one third, or half the price, the vender of ſuch can afford to ſell them 30 *per cent.* leſs, than he can afford to ſell well made Stones.

The truth of theſe matters will evidently appear by future enquiry and obſervation.

Of the ſizes of Brilliant DIAMONDS, *and their uſe in diſcovering ill manufactured ones.*

HERE it may be proper to ſhow, how far this ill manner of working before-mentioned may debaſe Diamonds of larger ſizes, and how much it may contribute to the deception both of buyer and ſeller. To that end will be ſhewn the uſe of the *ſizes* in diſcovering a *well*, or an *ill* made, Brilliant. For example, ſuppoſe two Stones of *ſix carrats* weight each, the one a well made, the other an ill made Stone; the firſt will tally in all circumſtances with N°. 20. of ſix carrats weight; and the laſt may be *loaded* with *undue* ſubſtance, by which means its expanſion may not exceed one of five, or four carrats weight. If any

Bril-

Brilliant be ſo circumſtanced, it is to be valued only as it agrees with any of the ſame expanſion in the liſt, allowing for the expence of rectifying; becauſe, whatever ſubſtance, or weight, it carries beyond what its ſize demands, deſtroys, in proportion to ſuch exceſs, the beauty of its make, and its true ſpirit and luſtre. And here may be ſeen, the difference it would make to a purchaſer, who may be induced to give the price, that a well made Stone of ſix carrats weight demands, for one whoſe expanſion may not exceed that of five, or four carrats weight. For example, a Stone of ſix carrats weight, by the rule before laid down, is worth - - - - - - *L* 288 0 0

One of five carrats - - 200 0 0

One of four carrats - - 128 0 0

If the difference be ſo great in the inſtance given, how much greater muſt

it be in regard to Stones of larger weights? And as that may be eaſily known by the ſame method of enquiry, no other inſtance need be here given.

Since then, ſo great a deception may ariſe from the ill manufacture of Diamonds, the great uſe of the ſizes in diſcovering ſuch, evidently appears. And, as the attaining a right knowledge of the *true make* of Diamonds will be found, of all other circumſtances, the moſt neceſſary in arriving at their *value*; ſome remarks are here made, by which the reader is informed in what manner the *defects* of ill made Brilliant Diamonds will appear. To that end, an inſtance is given of a Stone of ſix carrats weight, which is but of the expanſion of one of five carrats. It will partake more, or leſs, of all the following defects. Either it will be *deeper* than

a Stone of five carrats; or, if not deeper, its *table* and *collet* will be *larger*, and that will render it *blocky*, by the ſides being too upright; or, it will be left too thick at the girdle, before the *ſmall* work (which means the *ſtar*, and *skill faſſets*) is performed; and, if ſuch thickneſs be ſufficiently reduced; that is, ſo as to be conſiſtent with ſafety in ſetting, the skill faſſets will be executed in an *obtuſe*, or *blunt* manner, and that will cauſe an undue *ſwelling* in the Stone; or it may, after all, be left too thick at the girdle. A Stone thus made will unavoidably be of an ill form, and be rendered lifeleſs, and dull; which cannot be rectified without the loſs of its ſuperabounding weight, which will reduce it to five carrats; and therefore it is to be valued only as *one of* five carrats. And in caſe a Stone, weighing ſix carrats, ſhould

ſhould tally only in ſize with one of four carrats, theſe defects will be proportionably increaſed, to the ſtill greater prejudice of the Stone; and therefore it will be purchaſing deformity at the price of beauty.

Of the method of manufacturing, and valuing, SPREAD BRILLIANTS.

CONCLUDING it unneceſſary to add any thing farther on the head of *full ſubſtanced*, and *overweighted* Brilliants; the next thing that requires notice, is, the method of manufacturing and eſtimating *ſpread Brilliants*. As to the method of making them; to do it in the moſt compleat manner, they muſt be proportioned, as

as in the caſe of full ſubſtanced ones, $\frac{1}{3}$ at the *upper*, or *table* ſide, and $\frac{2}{3}$ at the *under*, or *collet* ſide; and whatever be the diameter of their *tables*, that of their *collets* muſt be $\frac{1}{5}$ thereof. The ſmall work is to be performed in the ſame manner as is practiſed in full ſubſtanced Stones. This is all that is neceſſary to be taken notice of, in regard to their *manufacture*. But, previous to the method of *valuing* them, the following obſervation may be ſuggeſted;---that, as ſufficient reaſons have been given to make it appear, that Brilliants may be injured in their ſhape, and true beauty, by a ſuperabounding of weight; ſo, on the contrary, it will appear, that if they do not carry their true, or full ſubſtance, they will be injured in both theſe circumſtances; by reflecting on the conſequence of rendering them very thin or ſpread; which has fre-

frequently been carried to ſo great an *exceſs*, as to deprive them of the benefit of workmanſhip; for the work muſt neceſſarily be ſo flat, as to cauſe ſuch Stones to be faint, and languid in their luſtre, and thereby leſs worthy of eſteem in proportion to ſuch exceſs. Notwithſtanding which, it will be found, that in paſt times, inſtead of valuing THE WEIGHT of ſuch wrought Diamonds, *leſs* on that account, it has been valued *the more*; merely for the ſake of their making a ſhowy appearance. To which may be added, that all ſuch Stones are more liable to receive injury by blows, falls, or hard preſſure, than full ſubſtanced ones.

Here it is neceſſary to explain what is meant by *exceſs*, becauſe it muſt be allowed, that ſome Stones are ſo formed by nature, as not to be capable of being manufactured by art into

into any other than ſpread Brilliants, without too great a waſte of the Diamond ſpecies. Therefore, it may be laid down as a fit rule, to include under that denomination (*viz.* of exceſs) all ſpread Brilliants expanded beyond the ſize of full ſubſtanced ones of double their weight; and ſuch are to be valued only as they may be ſuppoſed to weigh, if reduced to this ſtandard.

It remains to ſhow, in what manner *ſpread Stones* are to be *valued*; which is as full ſubſtanced ones are of the ſame weight, ſimilar in all other circumſtances. And they are to be ſo valued, on account of their expanſion to the degree above-mentioned; for it muſt be admitted, that the ſpaciouſneſs of their appearance to that degree, counter-balances the deficiency of luſtre, owing to their want of ſubſtance.

And

And this is all that can be offered in juſtification of ſo valuing them, which carries the appearance of partiality rather in their favour, than diſfavour; eſpecially in regard to ſuch as are of the greateſt expanſion within the limits mentioned; conſidering, that full ſubſtanced Stones have all the advantages that both nature and art can beſtow.

Of Rose Diamonds.

HERE it is to be obſerved, that nothing can more perpetuate Rose Diamonds in the eſteem they have hitherto had in the world, than maintaining the truth of their manufacture. Nor was it ever more fit to be recommended than at preſent, on account of the corrupt taſte that has

of

of late prevailed, in converting *Roſe Diamonds* into *Brilliants*, under pretence of rendering them, by that means, a more beautiful, and excellent Jewel. This has frequently been done, to the great prejudice of their value, by leſſening the weight, and expanſion they bore in their preceding ſtate; and they have frequently been more injudiciouſly manufactured in the *new* ſpecies, than they were in the *old*. This will appear to have been often the caſe, by the *upper part* of ſuch Stones not carrying a true proportion of the ſubſtance of the Stone: Which of courſe renders the upper part flat, and the table of an immoderate extent; ſo that the *ſide work*, or bezil, appears but as a narrow border. This method of working has been introduced for the ſake of preſerving the expanſion, and weight of ſuch Stones, which unavoidably would

would be more reduced, if they were allowed their true proportion of top. Which reduction both of their weight and expanſion will appear ever neceſſary to be done, to render ſuch Stones compleat ſpread Brilliants; for ſuch only are they capable of being manufactured into.

Of the impropriety of changing well made ROSE DIAMONDS *into* BRILLIANTS.

FROM what has been obſerved, it will appear, that no Roſe Diamonds are proper ſubjects of this metamorphoſis, but ſuch only as are *over weighted*; and of ſuch, thoſe are the moſt proper ſubjects of the metamorphoſis which have the baſe, or girdle, too thick. The over weight will be

diſcovered by the *ſizes* hereafter mentioned. To convert any Roſe Diamond, not ſo circumſtanced, to a Brilliant, will be ſhown to be a practice not founded in reaſon, and which carries in it the appearance of an attempt to depreciate this antient and ſpacious manufacture of Diamonds, in order to exalt a new one beyond its real and true merit.

For it will be found, that a compleat Roſe Diamond will be more *expanded* than a compleat Brilliant of the ſame weight, and proportionably ſo in regard to ſpread Stones; therefore, as it has been ſhewn, that an increaſe of expanſion is ſubſtituted in the room of depth, or ſubſtance, in Brilliants, the ſame is to be admitted in regard to Roſe Diamonds, provided their expanſion does not exceed the limits preſcribed in the caſe of ſpread Brilliants.

And if it be admitted, as ſome have aſſerted, that there is a ſuperior excellency in Brilliants; what muſt be the conſequence, but that Roſe Diamonds muſt ſink in their value, to the great prejudice of the moſt noble and antient Families, who are greatly poſſeſſed of them, as being a more antient Jewel than Brilliants? But, on the contrary, it will appear that Roſe Diamonds, when truly manufactured, are not inferior to Brilliants, all circumſtances conſidered.

Of the form of a ROSE DIAMOND.

SOME obſervations are now to be made concerning their *form*. Their being called *Roſe* Diamonds, probably took its riſe from their ſhape, in ſome meaſure reſembling that of a roſe-

bud before it expands its leaves. They appear in a kind of ſemi-globular form, only terminating in a point at the top. Which form, and likewiſe the work, or facets thereof, covering *the whole face* of the Stone, being more equal, exhibit a more even diſplay of beauty, than a Brilliant, whoſe luſtre is derived from the *angles*, or facets, of *the ſides* only. And as their angles are larger than thoſe of a Brilliant, they throw forth more copious rays, the luſtre of which appears to be equivalent to the ſparkling vigour of the ſmaller, and more numerous angles of a Brilliant.

The fitneſs of aſſerting the dignity of the Roſe Diamond manufacture having been ſhown, the manner in which it is to be performed, is next to be pointed out. But firſt, it is neceſſary to lay down what is requiſite

to conſtitute a compleat Roſe Diamond. A *round*, or *circular* Stone is found the fitteſt for that purpoſe; becauſe its form is the moſt beautiful, and productive of more vigour than any other ſhaped Stone; which ariſes from its admitting of more equal, and better connected faſſets, than other ſhaped Stones will allow of. And for this farther reaſon, that the ſame ſubſtance, and manner of proportioning, which renders them moſt compleat, will render Stones of *any other* ſhape as beautiful as their forms will admit. The right ſubſtance, proportions, and manufacture of a circular Roſe Diamond are as follow.

Of

Of the manufacture of a ROSE DIAMOND.

THE depth of the Stone from the baſe to the point, muſt be half the breadth of the diameter of the baſe of the Stone; and the diameter of the crown muſt be $\frac{3}{5}$ of the diameter of the baſe; and the perpendicular from the baſe to the crown muſt be $\frac{1}{5}$ of the depth of the Stone; and then, the lozenges, which appear in all circular Roſe Diamonds, will be equally divided by the ribs that form the crown. The upper angles, or facets, will terminate in the extream point of the Stone, and the lower in the baſe or girdle.

In the 6th plate, there are four draughts of Roſe Diamonds manufactured by the before-mentioned rules. The firſt is *a ſide* view of a circular

ſhape. The ſecond, an *horizontal* view of the ſame. The third, an *oval*. The fourth, *a drop*. Their ſeveral parts are explained by the firſt and ſecond draughts. As to the firſt, *a*, is the *point*; *b*, the *crown*; *c*, the *girdle*. The upper triangles, or faſſets, ſhow half the work of the crown; the under triangles, half the ſide. As to the ſecond draught, the common interſection of the ſix croſs lines meeting in the centre of the draught, is the *point*; the lines that form the hexagon, and the triangles within it, compoſe the *crown*; the triangles without the hexagon compoſe the *ſides*; the out-lines ſhow the *girdle*. All lines in the draughts are called *ribs* in Diamonds, except what expreſs the girdles. Theſe draughts are the repreſentations of Roſe Diamonds of 36 carrats weight each, and may be of perpetual

uſe

uſe to give a right idea of their proper figures, and workmanſhip.

Of the ſizes of ROSE DIAMONDS, *and their uſe in diſcovering ill manufactured ones.*

IN the following Plates VII, VIII, IX, X, is exhibited a liſt of 55 draughts of circular Roſe Diamonds from one carrat weight, to an hundred carrats; which are ſo many teſts to prove the *truth*, or *defects*, of any manufactured Stone of that kind. Their uſe, as in the caſe of Brilliants, will be ſhown in proving a Roſe Diamond to be either truly made, or not. For example, ſuppoſe one of five carrats weight; if it be truly made, it will be as expanded at the baſe, or girdle,

as N°. 18. of five carrats, and the ſize of the crown will alſo agree therewith; its depth will be likewiſe half its diameter, or breadth. But if it be baſely made, and left *loaded* with undue weight, its expanſion at the baſe may not exceed one of above three, or four carrats weight. Such a Stone, according to the degree in which it falls ſhort of its juſt ſize, will partake of ſome, or all the following defects. Either its depth, from the baſe to the point, will *exceed* the rule; or, tho' it ſhould not be too deep, its ſides below the crown may be *too upright*, which will be diſcovered by the crown's exceeding its proper extent, and that will conſequently cauſe a flatneſs from the crown to the point; or the crown may be ſituated *too high*; if ſo, the ſize of the crown may not exceed its juſt extent, but then it will occaſion

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an increaſed flatneſs of the crown, and produce an extravagant depth below it; or the girdle may be left *too thick.* If any Roſe Diamond is made after this manner, it will, according to the degree in which it is thus defective, be injured in its ſhape, ſpirit, and luſtre; and therefore is not to be valued by its weight, but only as it agrees in ſize with any in the liſt; for the ſame reaſons as are given in the like caſe of Brilliants.

Of the method of manufacturing, and valuing SPREAD ROSE DIAMONDS.

THE next thing to be regarded, is the manner of making, and valuing, *ſpread Roſe Diamonds.* As to the manner of making them; what is neceſſary to be obſerved, is, that their crowns

crowns muſt be of ſuch an extent, and placed in ſuch a ſituation, as to prevent any diſproportionate flatneſs in the crown, and unequal diviſion of the lozenges: And, that they be made as thin at the girdle as is conſiſtent with ſafety in ſetting them. This is all that is neceſſary to be obſerved on that head. As to valuing them; the ſame method is to be obſerved, as in the caſe of ſpread Brilliants in all reſpects.

Note, This article of making *ſpread Roſe* Diamonds, is as neceſſary to the ſame ends and purpoſes, as the manufacture of *ſpread Brilliants*; inaſmuch as they occupy thinner matter than Brilliants can.

Suppoſing it ſufficiently proved, that Brilliant, and Roſe, Diamonds, are of equal eſtimation and value; the next conſiderations are thoſe of their perfections,

tions, and imperfections, regarding their innate properties.

Of the innate perfections, imperfections, and water of DIAMONDS.

THE circumſtances which diſtinguiſh *the fineſt* Diamonds are theſe; their complexion muſt be like that of a drop of the cleareſt rock water. And if ſuch Stones be of a regular form; and be truly made; and free from ſtains, fouls, ſpots, ſpecks, flaws, and croſs veins, they will carry the higheſt luſtre of any whatever, and will be eſteemed the moſt perfect.

If any are tinctured yellow, blue, green, or red, in a high degree, which ſeldom happens, they are next in eſteem; but, if any partake of theſe colours only in

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a low degree, it ſinks their value below the before-mentioned.

There are other complexions of a more compound ſort, ſuch as brown, and thoſe of a dark hue. The firſt of theſe ſometimes reſemble the browneſt ſugar-candy, the latter dusky iron. And if any Diamonds are attended with ſtains, fouls, ſpots, ſpecks, flaws, and croſs veins, it will abate their luſtre, and ſink their value. Here it may be obſerved, that what is commonly called *the firſt water* in Diamonds, means the greateſt purity, and perfection of their complexion, which muſt be like a drop of the cleareſt rock water. When any ſpeak of a Diamond falling ſhort, more or leſs, of that perfection, it is expreſſed by ſaying, it is of the *ſecond*, or *third water*, &c. till a Stone may be properly called *a coloured* one. And to ſpeak of a Diamond imperfect-

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ly coloured, and containing any other defects, as a Stone of *a bad* water only, is very improper; as it does not convey an idea of the particular colour, or defects belonging to it.

Of the table of prices of DIAMONDS.

THE next thing to be taken notice of is *a table*, which will be found in the 11th, 12th, 13th, 14th, 15th, and 16th plates. This table consists of *the price of Diamonds* from one carrat weight to an hundred carrats, formed upon the principle of valuing them by the square of their weight, upon the supposition that the governing price of rough Diamonds, good and bad blended together, is 2 *l. per* carrat; so that 2 *l.* is to be reckoned the *mean*, or *middle* price,

price, and will be found of great uſe to prevent the trouble of calculating the price of every Stone by the rule. If any Stone differs in its value from this mean, or middle, price, whether higher or lower, ſo much *per cent.* is to be added, or deducted, as judgment ſhall direct. For example, a Stone of one carrat will be ſeen in the table to be 8 *l.* To find it out by the rule, the method is to multiply 2 by 2, that makes 4, which is the ſquare of its weight; then multiply 4 by 2 *l.* the price of one carrat, that makes 8 *l.* Here it is to be remembered, that half the weight is ſuppoſed *loſt* in *making*, which occaſions the firſt multiplying by 2; but, as this method is more laborious, and intricate, in regard to Stones of *odd* weights, the table will be found of much convenience. The inſtance of five carrats one eighth,

may

may be given as a proof; firſt, reduce the 5 carrats $\frac{1}{8}$ into eighths, which make 41; that being done, multiply that into itſelf, which makes 1681; and then, multiply that by 1 *l.* being the 8th part of 8 *l.* the price of one carrat; that makes 1681; and then divide 1681, being now eighths, into whole numbers, by 8, that produces 210 *l.* 2 *s.* 6 *d.* which is the price of ſuch a Stone, and agrees with the table.

It will be here proper to obſerve farther, that no notice is taken of the *additional price,* which the expence of manufacture would occaſion in each Stone. This is omitted on account of the different prices their different *ſizes* and *weights* demand; and likewiſe on account of the different prices, which their various *ſubſtances* require. Theſe circumſtances render it impracticable

to

to be inſerted, and therefore the prices of both are contained in four tables exhibited at the end of the treatiſe. The firſt table contains the price of *full ſubſtanced*, or *full proportioned Brilliants*, explained as follows: The firſt column exhibits a ſuppoſed increaſe of ſize and weight, from a Stone of a carrat, to one of an hundred carrats. The firſt five articles are carried on by the increaſe of one carrat each, the following by five carrats each. The ſecond column contains the price of their workmanſhip, according to their increaſe in weight, at the rate of 1 *l. per* carrat. The reaſon of carrying on the gradation by the increaſe of *five* carrats, is for the ſake of brevity; as the different prices of the intermediate weights are inconſiderable, compared with the increaſed value of ſuch Stones. The firſt table being explained, it will

ſerve

ſerve as an explanation of the other three.

The ſecond table exhibits the price of making *ſpread Brilliants*, which is rated at 1 *l.* 5 *s. per* carrat; and is ſo done for the following reaſons: Namely, that all *ſpread* Stones require more care than *full-ſubſtanced* ones, and are not ſo ſoon diſpatched. The third and fourth tables regard the price of manufacturing *Roſe* Diamonds; which manufacture demanding leſs labour than that of Brilliants, cauſes the price to be one fourth leſs, as will be ſeen by the 3d table regarding full ſubſtanced, or full proportioned Roſe Diamonds. The 4th table regards *ſpread Roſe* Diamonds, the price of which is the ſame with that of full-ſubſtanced Brilliants, which is ſo raiſed for the ſame reaſons as have been given in the caſe of ſpread Brilliants.

If I had not inſerted the different expence of manufacturing Diamonds, it would be found wanting in the value of every Stone; but may now be eaſily ſupplied from the tables juſt explained. An inſtance will fully evince their uſe, which I will give in the caſe of a full proportioned Brilliant. For example; ſuppoſe the value is required of one of the mean, or middle ſort, of 7 $\frac{7}{8}$ carrats; the Diamond, excluſive of the expence of workmanſhip, comes to 496 *l.* 2 *s.* 6 *d*; the expence of workmanſhip muſt be reckoned at 1 *l.* 17 *s.* 6 *d. per* carrat, which comes to 14 *l.* 15 *s.* 3 $\frac{3}{4}$; *that* being added, the whole makes 510 *l.* 17 *s.* 9 $\frac{3}{4}$.

From the various helps contained in this book, it may be reaſonably expected, that ſuch as are skilful in Diamonds, and acquainted with the current price of them, will hereafter univerſally

agree in ſentiments concerning the value of any Stone of a carrat weight, however circumſtanced, to 5 or 10 *per cent.*; on whoſe judgment the leſs knowing will naturally rely. By this means, the value of Diamonds will be acknowledged to be determinable to this degree of certainty; inaſmuch as the worth of any Stone, of what degree of perfection, or imperfection ſoever, either in regard to nature or art, is to be determined by the price of one of a carrat weight, ſimilar in all circumſtances.

Farther obſervations on ROUGH DIAMONDS.

SUPPOSING the ſeveral means for attaining a right knowledge of the value of *manufactured* Dia-

monds have been ſufficiently treated of; it is here to be obſerved, that *the ſizes* of Brilliant and Roſe Diamonds will be of great uſe, in directing the judgment concerning *the loſs of weight* that may be ſuſtained in *working* ANY Diamond; and therefore muſt be of great ſervice towards forming a right notion of their value, as it is well known, that ſome *rough* Diamonds muſt ſuſtain a much greater loſs, or diminution of weight than others, ariſing from their peculiar ſhapes. And to form a true judgment of the value of any *rough* Diamond, the price or value of one of a carrat weight ſimilar to the Stone which is to be purchaſed, determines its value, as in the caſe of *manufactured* Diamonds. But, as it is more difficult to judge what a rough Diamond will prove *when cut*, than to judge of one *manufactured*; the buyer, ſup-

ſuppoſing him a merchant, muſt act with proper precaution, and make ſufficient allowance to himſelf for the uncertainty of the Stone's anſwering expectation when wrought. And, if it be a Stone of a conſiderable value, he muſt allow himſelf alſo for the intereſt of the money he lays out, according to the time he ſuppoſes the Stone may remain unſold. Theſe precautions are the only means of guarding againſt the hazards, and diſadvantage, that attend dealing in large rough Diamonds. And, by ſuch a conduct, dealers may be enabled to ſell at a price agreeable to the eſtimation of the skilful; which eſtimation is the only thing to be regarded by thoſe who purchaſe them for their own uſe. To urge any other conſiderations to the purchaſer for augmenting the price of any Diamond

beyond its juſt value, will, it is humbly apprehended, be judged a weakneſs, and likely to hinder the ſale of ſuch goods.

But, if it ſhould be here remarked, that particular caſes, or occaſions, may juſtify the ſeller in demanding an advanced price for any Diamond; ſuch deviations muſt be conſidered as merely occaſional, and the buyer is at liberty, whether he will comply or not.

Some account of AUTHORS, *who have heretofore treated of* DIAMONDS *and* PEARLS, *and the improvements which have been made ſince their times.*

THOUGH what I have advanced is really the produce of many years critical obſervations in the courſe of

of dealing in rough and poliſhed Diamonds, and has been a work of much time, labour, and great expence; I am not a little pleaſed to ſee it agree with what I have ſince found to be mentioned by ſome celebrated writers, who have exhibited the principle upon which Diamonds are to be valued. The firſt which fell into my hands was Monſieur *Tavernier*, who mentions it in his *Voyages* through *Turky*, *Perſia*, and the *Eaſt-Indies*, which he publiſhed in the year 1670, and which were tranſlated into *Engliſh* in the year 1678. The next was the memorable Mr. *Lewis Roberts*, who publiſhed it in his *map of commerce* in the year 1638. Some time after, I communicated the principle of valuation I have exhibited in this treatiſe, to an acquaintance of mine, who was a dealer and a diamond cutter, and who had lived many

years at *Fort St. George* in that capacity; by whom I was informed, that the *India* traders (meaning the *natives* of *India*) had ſome eſtabliſhed rule of eſtimating Diamonds, &c. which he believed to be the ſame with what I then propoſed. At length, ſeveral years after the peruſal of the above writers, a ſtill more antient one was ſhewn me by means of a gentleman of great learning, and of great figure in the literary world. This author was *John Arphe de Villa Fane*, who ſpeaks of the principle of valuation in his treatiſe entitled, *The ſtandard of gold, ſilver, and precious ſtones*, publiſhed in *Spaniſh* in the year 1572, by the King of *Spain*'s eſpecial *licence*. Theſe writers have mentioned ſome attempts to ſettle rules for the manufacture of Diamonds; but, it is to be obſerved, that not only what they have deli-

delivered is very imperfect, but that when they wrote, the art of making *Brilliants* was not discovered; which manufacture is essential to the saving of the weight formerly lost, by cutting all rough Diamonds into *tables*, and *roses*; to prevent which loss of weight, as much as possible, a heavy load of substance has been left on both these kinds of manufacture. Moreover, to save weight, rough Diamonds have been frequently *sawed*, especially such as had no corners, in order to make them into *roses*; but this practice was attended with a much greater expence of workmanship, and withal, a much greater loss of weight, than they have been subject to since the making of *Brilliants* has been introduced; this latter manufacture being more suitable to Stones of most shapes.

Theſe obſervations ſhow, that if the truth of the manufacture of *Table* and *Roſe* Diamonds had been known in times paſt, which appears not to have been the caſe, although it might have been of uſe in preventing the paſt defective manner of making them, it could not procure the advantages which flow from the addition of the *Brilliant* manufacture, ſince *that* renders the whole *a compleat ſyſtem*; and not only contributes to the greateſt ſaving of weight, but likewiſe aſcertains the general loſs of weight, as has been already obſerved, which could not be known till the manufacture was reduced to ſettled rules. The want of this, probably, occaſioned a diſregard of what has been taken notice of by theſe *authors* concerning the manufacture, and valuation of Diamonds.

Of

Of the ſuperior worth of DIAMONDS, *over all other* JEWELS.

TO what has been offered in ſupport of the truth of their manufacture and value; it is to be added, that *Diamonds* have, in every age, been eſteemed *the chief of Jewels*, on account of their innate ſpecifick qualities; which, if not exhibited by proper skill, remain impriſoned. It is certain, that, in their natural ſtate, they have not ſo much beauty or luſtre, as ſome other ſort of Jewels; but when truly and judiciouſly manufactured, they throw forth a ſplendor, and luſtre, ſurpaſſing all others, which juſtly entitles them to the moſt perfect workmanſhip, and will conſequently be the moſt likely means of perpetuating them in the eſteem of the world.

And

And this will tend to eſtabliſh their worth, and ſecure every one's property therein; whereas a neglect of exhibiting and diſplaying their beauty by a proper workmanſhip, will render them unworthy ornaments of the great and diſtinguiſhed; which of courſe muſt ſink their value. Theſe conſiderations, doubtleſs, will influence the curious and diſcerning to give all due countenance to their being exhibited, in future times, with that beauty and luſtre of which they are ſuſceptible. And if the following additional circumſtances be taken notice of, they will farther ſhow, that *Diamonds* deſerve the chief regard of all Jewels. *Firſt*, They are the beſt *repoſitory of wealth*; inaſmuch as they will lie in the ſmalleſt ſpace of any, and are thereby the moſt portable, and beſt conveyance of treaſure. Next, their *ſuperlative Hard-*

neſs

neſs ſecures them from all injury by wear; as nothing can make any impreſſion on them, or prejudice their luſtre, but their rubbing againſt each other. They can only be affected *by fire*, and that muſt be ſtrong and laſting to do them much harm; and the injury they receive thereby ariſes chiefly from taking them *too haſtily* from thence, whereby the immediate impreſſion of the cold air may poſſibly produce flaws, *&c.* A moderate fire will only occaſion a roughneſs on their ſurface, which may be repaired by new poliſhing.

This finiſhes what is to be offered, ſeparately, on the ſubject of DIAMONDS.---That of PEARLS is now to be conſidered.

Of

Of PEARLS, *their production, and the manner of valuing them.*

THESE Jewels are next in importance to Diamonds, as they conſtitute the next greateſt ſhare of wealth of any other kind. The firſt thing to be obſerved concerning them, is, that what beauty they poſſeſs, is the mere produce *of nature*; and that they are not ſuſceptible of any advantages or helps *by art*; a circumſtance which recommends them to the eſteem of the world. The only rule of valuing them, is by the ſquare of their weight, as in the caſe of Diamonds; nature producing them after the ſame manner, *viz.* a vaſt number of ſmall ones, and progreſſively, a leſs number of larger as they increaſe in ſize and weight. Upon this principle two *tables* are

are formed of the *prices* of Pearls. The firſt eight contain thoſe of a carrat weight *downwards*, of eight different values, which will be found in Plates XVII, XVIII, XIX, XX, XXI, XXII, XXIII, XXIV. The firſt being explained, it ſerves for the other ſeven. The firſt column contains the *number* of Pearls in an ounce troy, from thoſe of a carrat weight, to ſuch as weigh but the 32d part of a carrat. The ſecond column contains the progreſſive decreaſe of their *weight*, from thoſe of one carrat, to thoſe of the 32d part of a carrat. The third contains their ſeveral *prices*, from one carrat at 2 *s.* to thoſe of the $\frac{3}{128}$th part of a penny. The fourth contains the price of an ounce, at the rate of 2 *s.* *per* carrat, which makes 15 *l*, to that of the ſmalleſt ſize, which is 9 *s.* 4 *d* $\frac{1}{2}$.

The

The next thing to be taken notice of, is, a table that relates to Pearls of a carrat weight, and *upwards* to an hundred carrats, which will be found in Plates XXV, XXVI, XXVII, XXVIII, XXIX, XXX. The prices of Pearls in this table, are founded upon the ſuppoſition, that the general price of Pearls, good and bad blended together, is 8 *s. per* carrat; which will be found to be the firſt article in it. This table, therefore, will be of the ſame uſe with regard to PEARLS, as the diamond-table is in regard to *Diamonds.* For, if any Pearl *exceeds* in quality, or *falls ſhort* of thoſe of the middle ſort; the riſe, or fall, upon the price of a Pearl of any weight muſt be ſo much *per cent.* as judgment ſhall direct; which prevents all trouble of finding it out by the rule. To ſhow the convenience of this table,

ble, the following example may be given. If the value of a Pearl of 4 carrats $\frac{7}{8}$ is required, which may be ſuppoſed to be 10 *per cent.* better than one of the mean or middle price, it will be found, by the table, to be worth 9 *l.* 10 *s.* 1 *d.* $\frac{1}{2}$. Then 19 *s.* is to be added, which is the produce of the 10 *per cent.* and makes its value to be 10 *l.* 9 *s.* 1 *d.* $\frac{1}{2}$. To find out the firſt price by the rule; reduce the 4 carrats $\frac{7}{8}$ into eighths, which make 39; then multiply that into itſelf, which is 1521; then multiply that by 1 *s.* being the 8th part of 8 *s.* the price of a carrat; that makes 1521; and then divide 1521, being now eighths, into whole numbers, by 8; *that* produces 9 *l.* 10 *s.* 1 *d.* $\frac{1}{2}$.

Of the perfections, and imperfections, of PEARLS.

THOSE of the fineſt ſhape are perfectly *round*, which fits them for necklaces, bracelets, jewels for the hair, and other ſuch like uſes. But if a Pearl, of any conſiderable ſize, be of the *ſhape of a Pear*, it is not reckoned an imperfection, becauſe it may be ſuitable for drops to earings, ſolitairs, and many other jewels. Their complexion muſt be *milk white*, not of a dead and lifeleſs, but of a clear and lively hue, free from ſtains, fouls, ſpots, ſpecks, or roughneſs; ſuch are of the *higheſt* eſteem and value.

Pearls are *defective* when rough, ſpotted, or dull; whether that be owing to any miſcarriage of nature, or to age,

age, to wear, or any other accident: When irregular in their ſhapes, be they flat or hollow, craggy or gibbous: When they are ſtained with any *colour*, as yellow, blue, green, red, brown, or that of a dusky iron. It is alſo an imperfection when they have large drilled holes, or are rubbed flat about the edges of the holes by long uſe. Theſe defects cauſe a very conſiderable difference in *the value* of Pearls of the ſame weight and ſize; to judge of which muſt be left to every ones skill and diſcernment. It may, notwithſtanding, be fairly concluded, that ſuch as are skilful and diſcerning will agree in their ſentiments concerning the value of any Pearl, as nearly as in the caſe of any Diamond. And be a Pearl of what weight ſoever, its value is to be eſtimated by the price of one of a carrat weight, ſimilar in all circumſtances.

CONCLUSION.

SUPPOSING what has been advanced in this treatiſe to be now evident, the importance of Diamonds and Pearls cannot but appear; and it will be allowed, that the value of theſe ſpecies of Jewels is determinable to a great nearneſs. In conſequence whereof, the injuries to which the publick, and even thoſe of the trade, have hitherto been expoſed, by an indeterminate valuation of this kind of property, will hereafter be greatly leſſened; and the reputation of traders ſupported, which has heretofore lain under much cenſure; owing to their not being more *uniform* in their ſentiments concerning the worth, or value, of theſe Jewels, more eſpecially thoſe of

of the largeſt ſort. And, if the rules laid down for working of Diamonds, be hereafter put in practice; the world will ſee Diamonds exhibited in their full luſtre and ſplendor, which will juſtly give them the pre-eminence of all other Jewels. Thereby alſo art will be encouraged; which has been for many years paſt much depreſſed, to the great hurt of all, and even to the total ruin of many, of the moſt ingenious workmen.

The fitneſs of propagating this knowledge has led me to the publication of this work; and, I cannot ſuffer myſelf to doubt, but it will be as acceptable to all ingenious traders, as to other purchaſers: Truth, and the publick good, being the principles on which every friend to mankind always does, and always will act.

The

The expence of making full proportioned Brilliant Diamonds.				The expence of making ſpread Brilliant Diamonds.			
Carrats.	*Per* Carrat.			Carrats.	*Per* Carrat.		
	l.	*s.*	*d.*		*l.*	*s.*	*d.*
1	1	0	0	1	1	5	0
2	1	2	6	2	1	8	1½
3	1	5	0	3	1	11	3¼
4	1	7	6	4	1	14	4¾
5	1	10	0	5	1	17	6¼
10	2	2	6	10	2	13	1¾
15	2	15	0	15	3	8	9½
20	3	7	6	20	4	4	4¾
25	4	0	0	25	5	0	0
30	4	12	6	30	5	15	7½
35	5	5	0	35	6	11	3
40	5	17	6	40	7	6	10½
45	6	10	0	45	8	2	6
50	7	2	6	50	8	18	1½
55	7	15	0	55	9	13	9
60	8	7	6	60	10	9	4½
65	9	0	0	65	11	5	0
70	9	12	6	70	12	0	7½
75	10	5	0	75	12	16	3
80	10	17	6	80	13	11	10½
85	11	10	0	85	14	7	6
90	12	2	6	90	15	3	1½
95	12	15	0	95	15	18	9
100	13	7	6	100	16	14	4½

The expence of making full proportioned Rose Diamonds.

Carrats.	*Per* Carrat. *l.*	*s.*	*d.*
1	0	15	0
2	0	16	10½
3	0	18	9
4	1	0	7½
5	1	2	6
10	1	11	10½
15	2	1	3
20	2	10	7½
25	3	0	0
30	3	9	4½
35	3	18	9
40	4	8	1½
45	4	17	6
50	5	6	10½
55	5	16	3
60	6	5	7½
65	6	15	0
70	7	4	4½
75	7	13	9
80	8	3	1½
85	8	12	6
90	9	1	10½
95	9	11	3
100	10	0	7½

The expence of making spread Rose Diamonds.

Carrats.	*Per* Carrat. *l.*	*s.*	*d.*
1	1	0	0
2	1	2	6
3	1	5	0
4	1	7	6
5	1	10	0
10	2	2	6
15	2	15	0
20	3	7	6
25	4	0	0
30	4	12	6
35	5	5	0
40	5	17	6
45	6	10	0
50	7	2	6
55	7	15	0
60	8	7	6
65	9	0	0
70	9	12	6
75	10	5	0
80	10	17	6
85	11	10	0
90	12	2	6
95	12	15	0
100	13	7	6

F I N I S.

1 2 3 4

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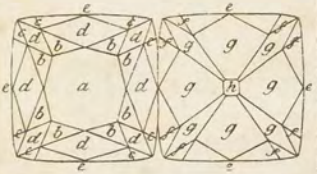

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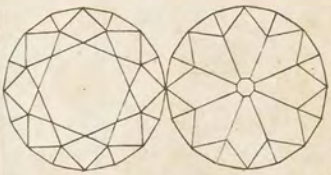

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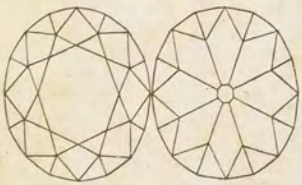

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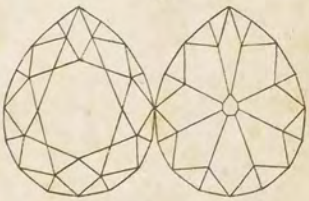
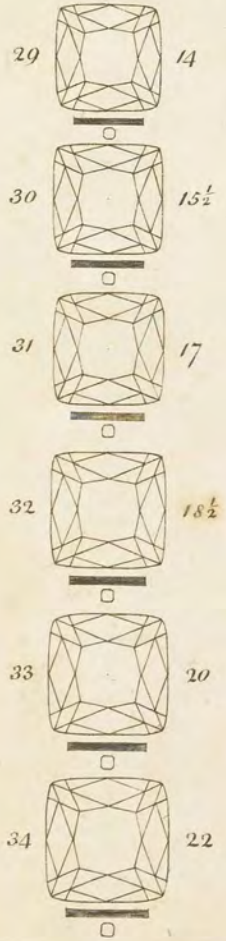


The Size of Brillant Diamonds.

Number	Weight	Number	Weight	Number	Weight
1	1	13	3 3/4	22	7
2	1 1/8	14	4	23	7 1/2
3	1 1/4	15	4 1/4	24	8
4	1 1/2	16	4 1/2	25	9
5	1 3/4	17	4 3/4	26	10
6	2	18	5	27	11
7	2 1/4	19	5 1/2	28	12 1/2
8	2 1/2	20	6		
9	2 3/4	21	6 1/2		
10	3				
11	3 1/4				
12	3 1/2				

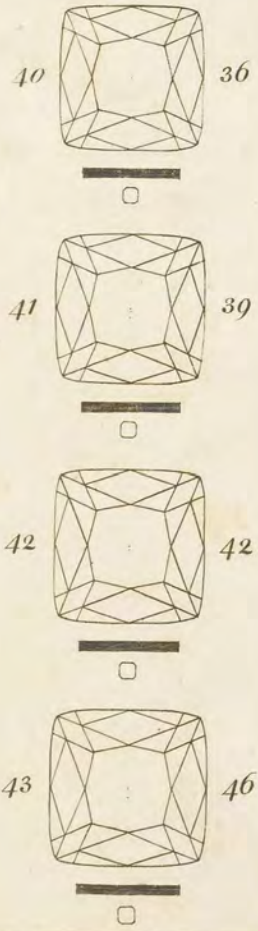
Brillant Diamonds.

Number	Weight	Number	Weight
29	14	35	24
30	15½	36	26
31	17	37	28
32	18½	38	30
33	20	39	33
34	22		



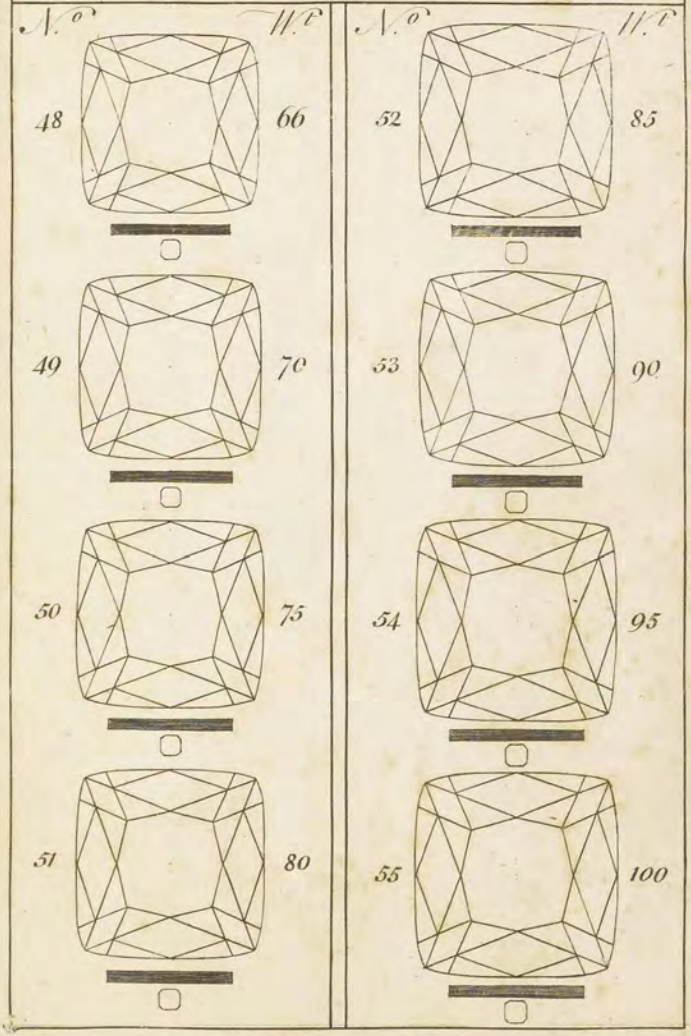
Brillant Diamonds.

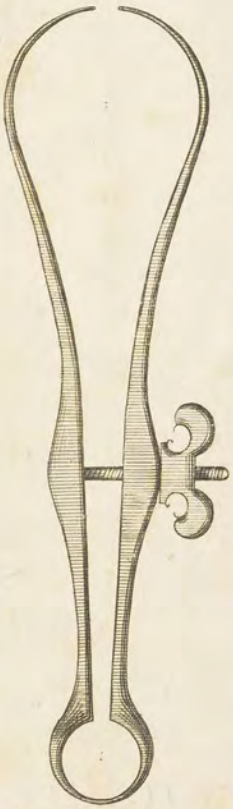
Number	Weight	Number	Weight
40	36	44	50
41	39	45	54
42	42	46	58
43	46	47	62

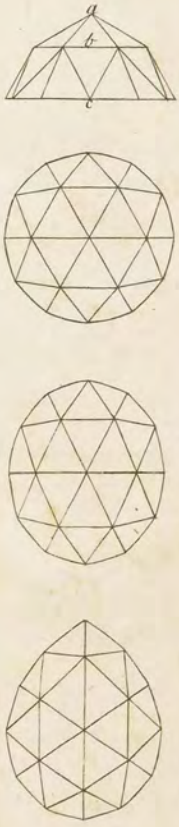


Brillant Diamonds.

N.o	W.t	N.o	W.t
48	66	52	85
49	70	53	90
50	75	54	95
51	80	55	100






a
b
c

The Sizes of Rose Diamonds.

Number	Weight	Number	Weight	Number	Weight
1	1	13	3¾	22	7
2	1⅛	14	4	23	7½
3	1¼	15	4¼	24	8
4	1½	16	4½	25	9
5	1¾	17	4¾	26	10
6	2	18	5	27	11
7	2¼	19	5½	28	12½
8	2½	20	6		
9	2¾	21	6½		
10	3				
11	3¼				
12	3½				

Rose Diamonds.

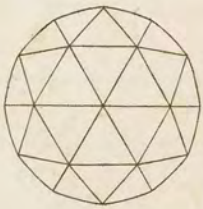
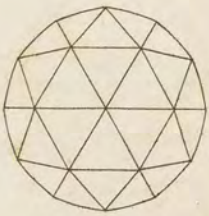
Number	Weight	Number	Weight
29 	14	35 	24
30 	15½	36 	26
31 	17	37 	28
32 	18½	38 	30
33 	20	39 	33
34 	22		

Rose Diamonds.

Number	Weight	Number	Weight
40	36	44	50
41	39	45	54
42	42	46	58
43	46	47	62



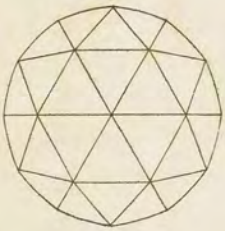
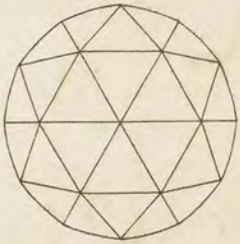
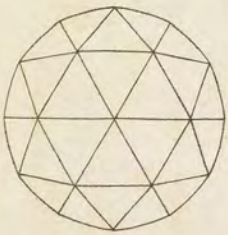
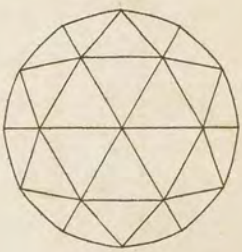


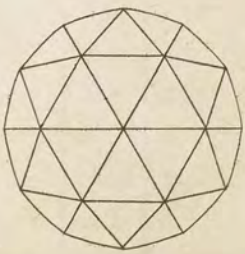





Rose Diamonds.

N.o	W.t	N.o	W.t
48	66	52	85
49	70	53	90
50	75	54	95
51	80	55	100





The Tables of Diamonds.

Wt	Price	Wt	Price	Wt	Price
Cr	£ s d	Cr	£ s d	Cr	£ s d
1	8:0:0	3 5/8	105:2:6	6 1/4	312:10:0
1 1/8	10:2:6	3 3/4	112:10:0	6 3/8	325:2:6
1 1/4	12:10:0	3 7/8	120:2:6	6 1/2	338:0:0
1 3/8	15:2:6	4	128:0:0	6 5/8	351:2:6
1 1/2	18:0:0	4 1/8	136:2:6	6 3/4	364:10:0
1 5/8	21:2:6	4 1/4	144:10:0	6 7/8	378:2:6
1 3/4	24:10:0	4 3/8	153:2:6	7	392:0:0
1 7/8	28:2:6	4 1/2	162:0:0	7 1/8	406:2:6
2	32:0:0	4 5/8	171:2:6	7 1/4	420:10:0
2 1/8	36:2:6	4 3/4	180:10:0	7 3/8	435:2:6
2 1/4	40:10:0	4 7/8	190:2:6	7 1/2	450:0:0
2 3/8	45:2:6	5	200:0:0	7 5/8	465:2:6
2 1/2	50:0:0	5 1/8	210:2:6	7 3/4	480:10:0
2 5/8	55:2:6	5 1/4	220:10:0	7 7/8	496:2:6
2 3/4	60:10:0	5 3/8	231:2:6	8	512:0:0
2 7/8	66:2:6	5 1/2	242:0:0	8 1/8	528:2:6
3	72:0:0	5 5/8	253:2:6	8 1/4	544:10:0
3 1/8	78:2:6	5 3/4	264:10:0	8 3/8	561:2:6
3 1/4	84:10:0	5 7/8	276:2:6	8 1/2	578:0:0
3 3/8	91:2:6	6	288:0:0	8 5/8	595:2:6
3 1/2	98:0:0	6 1/8	300:2:6	8 3/4	612:10:0

Diamonds continued

Wt	Price	Wt	Price	Wt	Price
Cr	£ s d	Cr	£ s d	Cr	£ s d
8 7/8	630:2:6	11 1/2	1058:0:0	14 5/8	1596:2:6
9	648:0:0	11 5/8	1081:2:6	14 1/4	1624:10:0
9 1/8	666:2:6	11 3/4	1104:10:0	14 3/8	1653:2:6
9 1/4	684:10:0	11 7/8	1128:2:6	14 1/2	1682:0:0
9 3/8	703:2:6	12	1152:0:0	14 5/8	1711:2:6
9 1/2	722:0:0	12 1/8	1176:2:6	14 3/4	1740:10:0
9 5/8	741:2:6	12 1/4	1200:10:0	14 7/8	1770:2:6
9 3/4	760:10:0	12 3/8	1225:2:6	15	1800:0:0
9 7/8	780:2:6	12 1/2	1250:0:0	15 1/8	1830:2:6
10	800:0:0	12 5/8	1275:2:6	15 1/4	1860:10:0
10 1/8	820:2:6	12 3/4	1300:10:0	15 3/8	1891:2:6
10 1/4	840:10:0	12 7/8	1326:2:6	15 1/2	1922:0:0
10 3/8	861:2:6	13	1352:0:0	15 5/8	1953:2:6
10 1/2	882:0:0	13 1/8	1378:2:6	15 3/4	1984:10:0
10 5/8	903:2:6	13 1/4	1404:10:0	15 7/8	2016:2:6
10 3/4	924:10:0	13 3/8	1431:2:6	16	2048:0:0
10 7/8	946:2:6	13 1/2	1458:0:0	16 1/8	2080:2:6
11	968:0:0	13 5/8	1485:2:6	16 1/4	2112:10:0
11 1/8	990:2:6	13 3/4	1512:10:0	16 3/8	2145:2:6
11 1/4	1012:10:0	13 7/8	1540:2:6	16 1/2	2178:0:0
11 3/8	1035:2:6	14	1568:0:0	16 5/8	2211:2:6

Diamonds continued

Wt	Price	Wt	Price	Wt	Price
Cr	£ s d	Cr	£ s d	Cr	£ s d
16 3/4	2244:10:0	19 3/8	3003:2:6	22	3872:0:0
16 7/8	2278:2:6	19 1/2	3042:0:0	22 1/8	3916:2:6
17	2312:0:0	19 5/8	3081:2:6	22 1/4	3960:10:0
17 1/8	2346:2:6	19 3/4	3120:10:0	22 3/8	4005:2:6
17 1/4	2380:10:0	19 7/8	3160:2:6	22 1/2	4050:0:0
17 3/8	2415:2:6	20	3200:0:0	22 5/8	4095:2:6
17 1/2	2450:0:0	20 1/8	3240:2:6	22 3/4	4140:10:0
17 5/8	2485:2:6	20 1/4	3280:10:0	22 7/8	4186:2:6
17 3/4	2520:10:0	20 3/8	3321:2:6	23	4232:0:0
17 7/8	2556:2:6	20 1/2	3362:0:0	23 1/8	4278:2:6
18	2592:0:0	20 5/8	3403:2:6	23 1/4	4324:10:0
18 1/8	2628:2:6	20 3/4	3444:10:0	23 3/8	4371:2:6
18 1/4	2664:10:0	20 7/8	3486:2:6	23 1/2	4418:0:0
18 3/8	2701:2:6	21	3528:0:0	23 5/8	4465:2:6
18 1/2	2738:0:0	21 1/8	3570:2:6	23 3/4	4512:10:0
18 5/8	2775:2:6	21 1/4	3612:10:0	23 7/8	4560:2:6
18 3/4	2812:10:0	21 3/8	3655:2:6	24	4608:0:0
18 7/8	2850:2:6	21 1/2	3698:0:0	24 1/8	4656:2:6
19	2888:0:0	21 5/8	3741:2:6	24 1/4	4704:10:0
19 1/8	2926:2:6	21 3/4	3784:10:0	24 3/8	4753:2:6
19 1/4	2964:10:0	21 7/8	3828:2:6	24 1/2	4802:0:0

Diamonds continued.

Wt	Price	Wt	Price	Wt	Price
Cr	£ s d	Cr	£ s	Cr	£ s
24 5/8	4851:2:6	29 1/2	6962:0	34 3/4	9660:10
24 3/4	4900:10:0	29 3/4	7080:10	35	9800:0
24 7/8	4950:2:6	30	7200:0	35 1/4	9940:10
25	5000:0:0	30 1/4	7320:10	35 1/2	10082:0
25 1/4	5100:10:0	30 1/2	7442:0	35 3/4	10224:10
25 1/2	5202:0:0	30 3/4	7564:10	36	10368:0
25 3/4	5304:10:0	31	7688:0	36 1/4	10512:10
26	5408:0:0	31 1/4	7812:10	36 1/2	10658:0
26 1/4	5512:10:0	31 1/2	7938:0	36 3/4	10804:10
26 1/2	5618:0:0	31 3/4	8064:10	37	10952:0
26 3/4	5724:10:0	32	8192:0	37 1/4	11100:10
27	5832:0:0	32 1/4	8320:10	37 1/2	11250:0
27 1/4	5940:10:0	32 1/2	8450:0	37 3/4	11400:10
27 1/2	6050:0:0	32 3/4	8580:10	38	11552:0
27 3/4	6160:10:0	33	8712:0	38 1/4	11702:10
28	6272:0:0	33 1/4	8844:10	38 1/2	11858:0
28 1/4	6384:10:0	33 1/2	8978:0	38 3/4	12012:10
28 1/2	6498:0:0	33 3/4	9112:10	39	12168:0
28 3/4	6612:10:0	34	9248:0	39 1/4	12324:10
29	6728:0:0	34 1/4	9384:10	39 1/2	12482:0
29 1/4	6844:10:0	34 1/2	9522:0	39 3/4	12640:10

Diamonds continued

Wt.	Price	Wt.	Price	Wt.	Price
Cr.	£ s	Cr.	£ s	Cr.	£
40	12800:0	45¼	16380:10	51	20808
40¼	12960:10	45½	16562:0	51½	21218
40½	13122:0	45¾	16744:10	52	21632
40¾	13284:10	46	16928:0	52½	22050
41	13448:0	46¼	17112:10	53	22472
41¼	13612:10	46½	17298:0	53½	22898
41½	13778:0	46¾	17484:10	54	23328
41¾	13944:10	47	17672:0	54½	23762
42	14112:0	47¼	17860:10	55	24200
42¼	14280:10	47½	18050:0	55½	24642
42½	14450:0	47¾	18240:10	56	25088
42¾	14620:10	48	18432:0	56½	25538
43	14792:0	48¼	18624:10	57	25992
43¼	14964:10	48½	18818:0	57½	26450
43½	15138:0	48¾	19012:10	58	26912
43¾	15312:10	49	19208:0	58½	21378
44	15488:0	49¼	19404:10	59	27848
44¼	15664:10	49½	19602:0	59½	28322
44½	15842:0	49¾	19800:10	60	28800
44¾	16020:10	50	20000:0	60½	29282
45	16200:0	50½	20402:0	61	29768

Diamonds continued

Wt.	Price	Wt.	Price	Wt.	Price
Cr	£	Cr	£	Cr	£
61½	30258	72	41472	90	64800
62	30752	72½	42050	91	66248
62½	31250	73	42632	92	67712
63	31752	73½	43218	93	69192
63½	32258	74	43808	94	70688
64	32768	74½	44402	95	72200
64½	33282	75	45000	96	73728
65	33800	76	46208	97	75272
65½	34322	77	47432	98	76832
66	34848	78	48672	99	78408
66½	35378	79	49928	100	80000
67	35912	80	51200		
67½	36450	81	52488		
68	36992	82	53792		
68½	37538	83	55112		
69	38088	84	56448		
69½	38642	85	57800		
70	39200	86	59168		
70½	39762	87	60552		
71	40328	88	61952		
71½	40898	89	63368		

The Tables of small Pearl.

The Number of Pearl in an Oz: Troy	Their Weight	Their Value p. Piece at 1/2 p. Carrat	Their Value p. Ounce at that Rate
N.o	Cr.	s d	£ s d
150	1	2 : 0	15 : 0 : 0
160	15/16	1 : 9 3/32	14 : 1 : 3
171	7/8	1 : 6 3/8	13 : 1 : 10 1/8
184	13/16	1 : 3 27/32	12 : 2 : 11 1/4
200	3/4	1 : 1 1/2	11 : 5 : 0
218	11/16	11 11/32	10 : 6 : 0 15/16
240	5/8	9 3/8	9 : 7 : 6
266	9/16	7 19/32	8 : 8 : 3 15/16
300	1/2	6	7 : 10 : 0
342	7/16	4 19/32	6 : 10 : 11 1/16
400	3/8	3 3/8	5 : 12 : 6
480	5/16	2 11/32	4 : 13 : 9
600	1/4	1 1/2	3 : 15 : 0
800	3/16	27/32	2 : 16 : 3
1200	1/8	3/8	1 : 17 : 6
2400	1/16	3/32	18 : 9
4800	1/32	3/128	9 : 4 1/2

Small Pearl continued

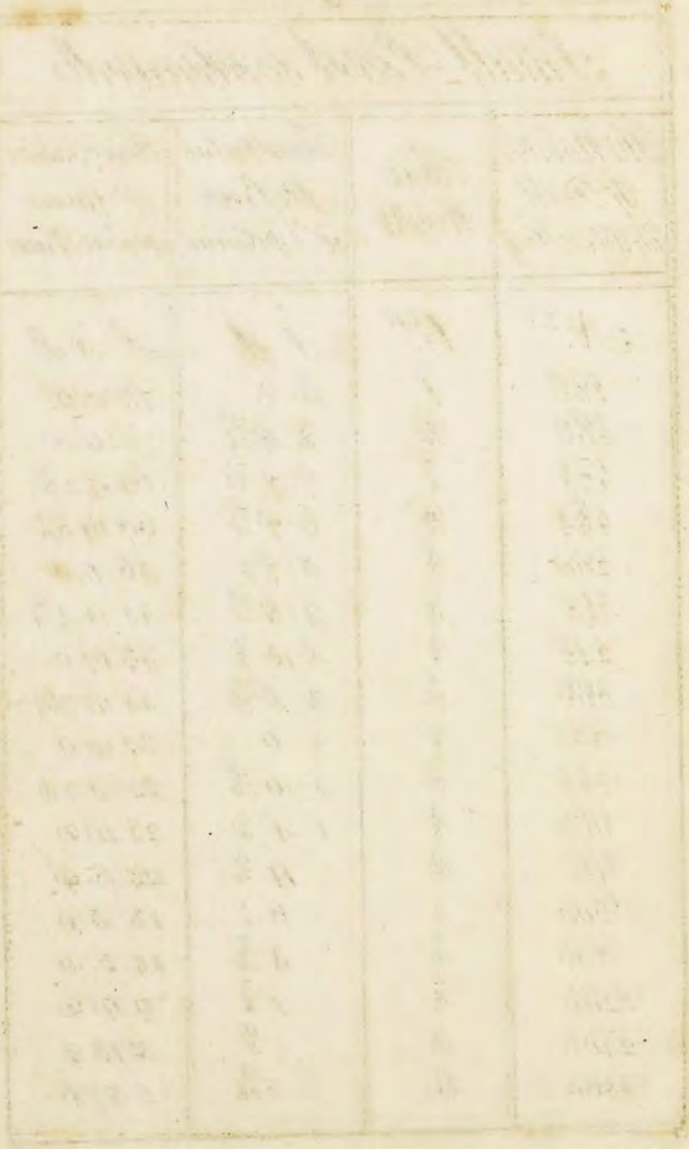
The Number of Pearl in an Oz Troy	Their Weight	Their Value ℔ Piece at 3 ℔ Carrat	Their Value ℔ Ounce at that Rate
N.°	Cr.	S d	£ S d
150	1	4 : 0	30 : 0 : 0
160	15/16	3 : 6 3/16	28 : 2 : 6
171	7/8	3 : 0 3/4	26 : 3 : 8 1/4
184	13/16	2 : 7 11/16	24 : 5 : 10 1/2
200	3/4	2 : 3	22 : 10 : 0
218	11/16	1 : 10 11/16	20 : 12 : 1 7/8
240	5/8	1 : 6 3/4	18 : 15 : 0
266	9/16	1 : 3 3/16	16 : 16 : 7 7/8
300	1/2	1 : 0	15 : 0 : 0
342	7/16	9 3/16	13 : 1 : 10 1/8
400	3/8	6 3/4	11 : 5 : 0
480	5/16	4 11/16	9 : 7 : 6
600	1/4	3	7 : 10 : 0
800	3/16	1 11/16	5 : 12 : 6
1200	1/8	3/4	3 : 15 : 0
2400	1/16	3/16	1 : 17 : 6
4800	1/32	3/64	18 : 9

Small Pearl continued

The Number of Pearl in an Oz Troy	Their Weight	Their Value p. Piece at 6 J p Carrat	Their Value p. Ounce at that Rate
N.°	Cr.	s d	£ s d
150	1	6:0	45:0:0
160	15/16	5:3 9/32	42:3:9
171	7/8	4:7 1/8	39:5:6 3/8
184	13/16	3:11 17/32	36:8:9 3/4
200	3/4	3:4 1/2	33:15:0
218	11/16	2:10 1/32	30:18:2 13/16
240	5/8	2:4 1/8	28:2:6
266	9/16	1:10 25/32	25:4:11 13/16
300	1/2	1:6	22 10 0
342	7/16	1:1 25/32	19:12:9 3/16
400	3/8	10 1/8	16:17:6
480	5/16	7 1/32	14:1:3
600	1/4	4 1/2	11:5:0
800	3/16	2 17/32	8:8:9
1200	1/8	1 1/8	5:12:6
2400	1/16	9/32	2:16:3
4800	1/32	9/128	1:8:1 1/2

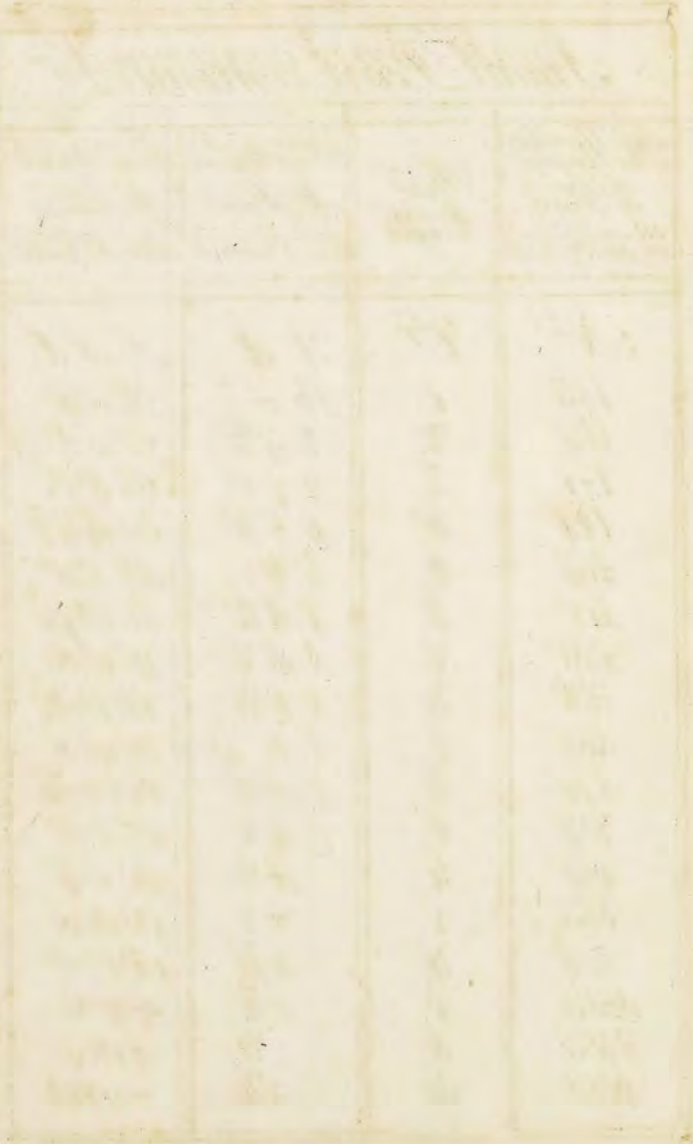
Small Pearl continued

The Number of Pearl in an Oz Troy	Their Weight	Their Value p. Piece at 8 p. Carrat	Their Value p. Ounce at that Rate
N°	Cr	s d	£ s d
150	1	8 : 0	60 : 0 : 0
160	15/16	7 : 0 3/8	56 : 5 : 0
171	7/8	6 : 1 1/2	52 : 7 : 4 1/2
184	13/16	5 : 3 3/8	48 : 11 : 9
200	3/4	4 : 6	45 : 0 : 0
218	11/16	3 : 9 3/8	41 : 4 : 3 3/4
240	5/8	3 : 1 1/2	37 : 10 : 0
266	9/16	2 : 6 3/8	33 : 13 : 3 3/4
300	1/2	2 : 0	30 : 0 : 0
342	7/16	1 : 6 3/8	26 : 3 : 8 1/4
400	3/8	1 : 1 1/2	22 : 10 : 0
480	5/16	9 3/8	18 : 15 : 0
600	1/4	6	15 : 0 : 0
800	3/16	3 3/8	11 : 5 : 0
1200	1/8	1 1/2	7 : 10 : 0
2400	1/16	3/8	3 : 15 : 0
4800	1/32	3/32	1 : 17 : 6



Small Pearl continued

The Number of Pearl in an Oz Troy	Their Weight	Their Value p. Piece at 10 p. Carrat	Their Value p. Ounce at that Rate
N.o	Cr.	s d	£ s d
150	1	10:0	75:0:0
160	15/16	8:9 15/32	70:6:3
171	7/8	7:7 7/8	65:9:2 5/8
184	13/16	6:7 7/32	60:14:8 1/4
200	3/4	5:7 1/2	56:5:0
218	11/16	4:8 23/32	51:10:4 11/16
240	5/8	3:10 7/8	46:17:6
266	9/16	3:1 31/32	42:1:7 11/16
300	1/2	2:6	37:10:0
342	7/16	1:10 31/32	32:14:7 5/16
400	3/8	1:4 7/8	28:2:6
480	5/16	11 23/32	23:8:9
600	1/4	7 1/2	18:15:0
800	3/16	4 7/32	14:1:3
1200	1/8	1 7/8	9:7:6
2400	1/16	15/32	4:13:9
4800	1/32	15/128	2:6:10 1/2



Small Pearl continued

The Number of Pearl in an Oz. Troy	Their Weight	Their Value p. Piece at 1/12 p. Carrat	Their Value p. Ounce at that Rate
N.°	Cr.	s d	£ s d
150	1	12 : 0	90 : 0 : 0
160	15/16	10 : 6 9/16	84 : 7 : 6
171	7/8	9 : 2 1/4	78 : 11 : 0 3/4
184	13/16	7 : 11 1/16	72 : 17 : 7 1/2
200	3/4	6 : 9	67 : 10 : 0
218	11/16	5 : 8 1/16	61 : 16 5 5/8
240	5/8	4 : 8 1/4	56 : 5 : 0
266	9/16	3 : 9 9/10	50 : 9 : 11 5/8
300	1/2	3 : 0	45 : 0 : 0
342	7/16	2 : 3 9/10	39 : 5 : 6 3/8
400	3/8	1 : 8 1/4	33 : 15 : 0
480	5/16	1 : 2 1/16	28 : 2 : 6
600	1/4	9	22 : 10 : 0
800	3/16	5 1/16	16 : 17 : 6
1200	1/8	2 1/4	11 : 5 : 0
2400	1/16	9/16	5 : 12 : 6
4800	1/32	9/64	2 : 16 : 3

Small Pearl continued

The Number of Pearl in an Oz. Troy	Their Weight	Their Value p. Piece at 1/14 p. Carrat	Their Value p. Ounce at that Rate
N.o	C.r	s d	£ s d
150	1	14:0	105:0:0
160	15/16	12:3 21/32	98:8:9
171	7/8	10:8 5/8	91:12:10 7/8
184	13/16	9:2 29/32	85:0:6 3/4
200	3/4	7:10 1/2	78:15:0
218	11/16	6:7 13/32	72:2:6 9/16
240	5/8	5:5 5/8	65:12:6
266	9/16	4:5 5/32	58:18:3 9/16
300	1/2	3:6	52:10:0
342	7/16	2:8 5/32	45:16:5 1/16
400	3/8	1:11 5/8	39:7:6
480	5/16	1:4 13/32	32:16:3
600	1/4	10 1/2	26:5:0
800	3/16	5 29/32	19:13:9
1200	1/8	2 5/8	13:2:6
2400	1/16	21/32	6:11:3
4800	1/32	21/128	3:5:7 1/2

Small Pearl continued

The Number of Pearl in an Oz. Troy	Their Weight	Their Value p. Piece at 16 p Carrat	Their Value p. Ounce at that Rate
N.°	C.r	s d	£ s d
150	1	16 : 0	120 : 0 : 0
160	15/16	14 : 0 3/4	112 : 10 : 0
171	7/8	12 : 3	104 : 14 : 9
184	13/16	10 : 6 3/4	97 : 3 : 6
200	3/4	9 : 0	90 : 0 : 0
218	11/16	7 : 6 3/4	82 : 8 : 7 1/2
240	5/8	6 : 3	75 : 0 : 0
266	9/16	5 : 0 3/4	67 : 6 : 7 1/2
300	1/2	4 : 0	60 : 0 : 0
342	7/16	3 : 0 3/4	52 : 7 : 4 1/2
400	3/8	2 : 3	45 : 0 : 0
480	5/16	1 : 6 3/4	37 : 10 : 0
600	1/4	1 : 0	30 : 0 : 0
800	3/16	6 3/4	22 : 10 : 0
1200	1/8	3	15 : 0 : 0
2400	1/16	3/4	7 : 10 : 0
4800	1/32	3/16	3 : 15 : 0

The Tables of large Pearl.

Wt.	Price	Wt.	Price	Wt.	Price
Cr	£ s d	Cr	£ s d	Cr	£ s d
1	8:0	3 5/8	5: 5:1 1/2	6 1/4	15: 12:6
1 1/8	10: 1 1/2	3 3/4	5:12:6	6 3/8	16: 5:1 1/2
1 1/4	12: 6	3 7/8	6: 0:1 1/2	6 1/2	16: 18:0
1 3/8	15: 1 1/2	4	6: 8:0	6 5/8	17: 11:1 1/2
1 1/2	18: 0	4 1/8	6:16:1 1/2	6 3/4	18: 4:6
1 5/8	1: 1:1 1/2	4 1/4	7: 4:6	6 7/8	18:18:1 1/2
1 3/4	1: 4:6	4 3/8	7:13:1 1/2	7	19:12:0
1 7/8	1: 8:1 1/2	4 1/2	8: 2:0	7 1/8	20: 6:1 1/2
2	1:12:0	4 5/8	8:11:1 1/2	7 1/4	21: 0:6
2 1/8	1:16:1 1/2	4 3/4	9: 0:6	7 3/8	21:15:1 1/2
2 1/4	2: 0:6	4 7/8	9:10:1 1/2	7 1/2	22:10:0
2 3/8	2: 5:1 1/2	5	10: 0:0	7 5/8	23: 5:1 1/2
2 1/2	2:10:0	5 1/8	10:10:1 1/2	7 3/4	24: 0:6
2 5/8	2:15:1 1/2	5 1/4	11: 0:6	7 7/8	24:16:1 1/2
2 3/4	3: 0:6	5 3/8	11:11:1 1/2	8	25:12:0
2 7/8	3: 6:1 1/2	5 1/2	12: 2:0	8 1/8	26: 8:1 1/2
3	3:12:0	5 5/8	12:13:1 1/2	8 1/4	27: 4:6
3 1/8	3:18:1 1/2	5 3/4	13: 4:6	8 3/8	28: 1:1 1/2
3 1/4	4: 4:6	5 7/8	13:16:1 1/2	8 1/2	28:18:0
3 3/8	4:11:1 1/2	6	14: 8:0	8 5/8	29:15:1 1/2
3 1/2	4:18:0	6 1/8	15: 0:1 1/2	8 3/4	30:12:6

Large Pearl continued.

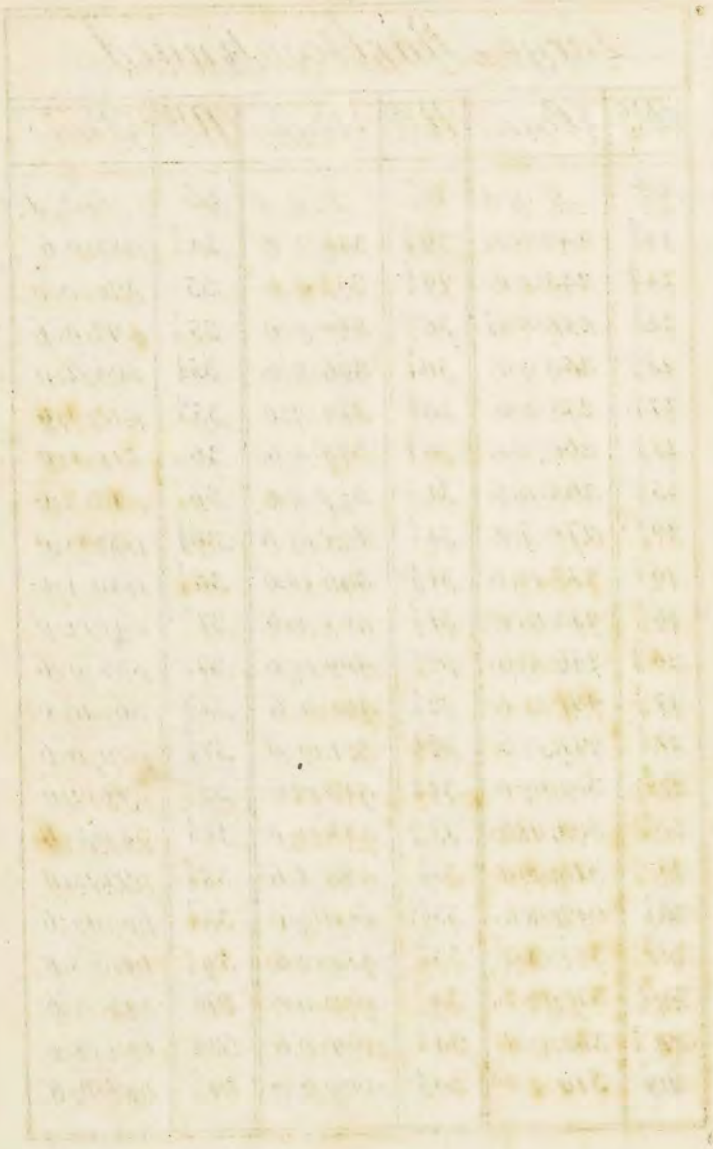
Wt.	Price	Wt.	Price	Wt.	Price
Cr.	£ s d	Cr.	£ s d	Cr.	£ s d
8 7/8	31:10:1½	11 ½	52:18:0	14 ⅛	79:16:1½
9	32: 8:0	11 ⅝	54: 1:1½	14 ¼	81: 4:6
9 ⅛	33: 6:1½	11 ¾	55: 4:6	14 ⅜	82:13:1½
9 ¼	34: 4:6	11 ⅞	56: 8:1½	14 ½	84: 2:0
9 ⅜	35: 3:1½	12	57:12:0	14 ⅝	85:11:1½
9 ½	36: 2:0	12 ⅛	58:16:1½	14 ¾	87: 0:6
9 ⅝	37: 1:1½	12 ¼	60: 0:6	14 ⅞	88:10:1½
9 ¾	38: 0:6	12 ⅜	61: 5:1½	15	90: 0:0
9 ⅞	39: 0:1½	12 ½	62:10:0	15 ⅛	91:10:1½
10	40: 0:0	12 ⅝	63:15:1½	15 ¼	93: 0:6
10 ⅛	41: 0:1½	12 ¾	65: 0:6	15 ⅜	94:11:1½
10 ¼	42: 0:6	12 ⅞	66: 6:1½	15 ½	96: 2:0
10 ⅜	43: 1:1½	13	67:12:0	15 ⅝	97:13:1½
10 ½	44: 2:0	13 ⅛	68:18:1½	15 ¾	99: 4:6
10 ⅝	45: 3:1½	13 ¼	70: 4:6	15 ⅞	100:16:1½
10 ¾	46: 4:6	13 ⅜	71:11:1½	16	102: 8:0
10 ⅞	47: 6:1½	13 ½	72:18:0	16 ⅛	104:0:1½
11	48: 8:0	13 ⅝	74: 5:1½	16 ¼	105:12:6
11 ⅛	49:10:1½	13 ¾	75:12:6	16 ⅜	107: 5:1½
11 ¼	50:12:6	13 ⅞	77: 0:1½	16 ½	108:18:0
11 ⅜	51:15:1½	14	78: 8:0	16 ⅝	110:11:1½

Large Pearl continued.

Wt.	Price	Wt.	Price	Wt.	Price
Cr.	£. S. d.	Cr.	£. S. d.	Cr.	£. S. d.
16 3/4	112:4:6	19 3/8	150:3:1 1/2	22	193:12:0
16 7/8	113:18:1 1/2	19 1/2	152:2:0	22 1/8	195:16:1 1/2
17	115:12:0	19 5/8	154:1:1 1/2	22 1/4	198:0:6
17 1/8	117:6:1 1/2	19 3/4	156:0:6	22 3/8	200:5:1 1/2
17 1/4	119:0:6	19 7/8	158:0:1 1/2	22 1/2	202:10:0
17 3/8	120:15:1 1/2	20	160:0:0	22 5/8	204:15:1 1/2
17 1/2	122:10:0	20 1/8	162:0:1 1/2	22 3/4	207:0:6
17 5/8	124:5:1 1/2	20 1/4	164:0:6	22 7/8	209:6:1 1/2
17 3/4	126:0:6	20 3/8	166:1:1 1/2	23	211:12:0
17 7/8	127:16:1 1/2	20 1/2	168:2:0	23 1/8	213:18:1 1/2
18	129:12:0	20 5/8	170:3:1 1/2	23 1/4	216:4:6
18 1/8	131:8:1 1/2	20 3/4	172:4:6	23 3/8	218:11:1 1/2
18 1/4	133:4:6	20 7/8	174:6:1 1/2	23 1/2	220:18:0
18 3/8	135:1:1 1/2	21	176:8:0	23 5/8	223:5:1 1/2
18 1/2	136:18:0	21 1/8	178:10:1 1/2	23 3/4	225:12:6
18 5/8	138:15:1 1/2	21 1/4	180:12:6	23 7/8	228:0:1 1/2
18 3/4	140:12:6	21 3/8	182:15:1 1/2	24	230:8:0
18 7/8	142:10:1 1/2	21 1/2	184:18:0	24 1/8	232:16:1 1/2
19	144:8:0	21 5/8	187:1:1 1/2	24 1/4	235:4:6
19 1/8	146:6:1 1/2	21 3/4	189:4:6	24 3/8	237:13:1 1/2
19 1/4	148:4:6	21 7/8	191:8:1 1/2	24 1/2	240:2:0

Large Pearl continued.

Wt.	Price	Wt.	Price	Wt.	Price
Cr.	£. s. d.	Cr.	£. s. d.	Cr.	£. s. d.
24 5/8	242:11:1½	29½	348: 2:0	34¾	483:0:6
24¾	245:0:6	29¾	354:0:6	35	490:0:0
24 7/8	247:10:1½	30	360:0:0	35¼	497:0:6
25	250:0:0	30¼	366:0:6	35½	504:2:0
25¼	255:0:6	30½	372:2:0	35¾	511:4:6
25½	260:2:0	30¾	378:4:6	36	518:8:0
25¾	265:4:6	31	384:8:0	36¼	525:2:6
26	270:8:0	31¼	390:12:6	36½	532:18:0
26¼	275:12:6	31½	396:18:0	36¾	540:4:6
26½	280:18:0	31¾	403:4:6	37	547:12:0
26¾	286:4:6	32	409:12:0	37¼	555:0:6
27	291:12:0	32¼	416:0:6	37½	562:10:0
27¼	297:0:6	32½	422:10:0	37¾	570:0:6
27½	302:10:0	32¾	429:0:6	38	577:12:0
27¾	308:0:6	33	435:12:0	38¼	585:4:6
28	313:12:0	33¼	442:4:6	38½	592:18:0
28¼	319:4:6	33½	448:18:0	38¾	600:12:6
28½	324:18:0	33¾	455:12:6	39	608:8:0
28¾	330:12:6	34	462:8:0	39¼	616:4:6
29	336:8:0	34¼	469:4:6	39½	624:2:0
29¼	342:4:6	34½	476:2:0	39¾	632:0:6



Large Pearl continued

Wt.	Price	Wt.	Price	Wt.	Price
Cr.	£ s d	Cr.	£ s d	Cr.	£ s
40	640:0:0	45¼	819:0:6	51	1040:8
40¼	648:0:6	45½	828:2:0	51½	1060:18
40½	656:2:0	45¾	837:4:6	52	1081:12
40¾	664:4:6	46	846:8:0	52½	1102:10
41	672:8:0	46¼	855:12:6	53	1123:12
41¼	680:12:6	46½	864:18:0	53½	1144:18
41½	688:18:0	46¾	874:4:6	54	1166:8
41¾	697:4:6	47	883:12:0	54½	1188:2
42	705:12:0	47¼	893:0:6	55	1210:0
42¼	714:0:6	47½	902:10:0	55½	1232:2
42½	722:10:0	47¾	912:0:6	56	1254:8
42¾	731:0:6	48	921:12:0	56½	1276:18
43	739:12:0	48¼	931:4:6	57	1299:12
43¼	748:4:6	48½	940:18:0	57½	1322:10
43½	756:18:0	48¾	950:12:6	58	1345:12
43¾	765:12:6	49	960:8:0	58½	1368:18
44	774:8:0	49¼	970:4:6	59	1392:8
44¼	783:4:6	49½	980:2:0	59½	1416:2
44½	792:2:0	49¾	990:0:6	60	1440:0
44¾	801:0:6	50	1000:0:0	60½	1464:2
45	810:0:0	50½	1020:2:0	61	1488:8

Large Pearl continued

Wt.	Price	Wt.	Price	Wt.	Price
Cr.	£ s	Cr.	£ s	Cr.	£ s
61½	1512:18	72	2073:12	90	3240:0
62	1537:12	72½	2102:10	91	3312:8
62½	1562:10	73	2131:12	92	3385:12
63	1587:12	73½	2160:18	93	3459:12
63½	1612:18	74	2190:8	94	3534:8
64	1638:8	74½	2220:2	95	3610:0
64½	1664:2	75	2250:0	96	3686:8
65	1690:0	76	2310:8	97	3763:12
65½	1716:2	77	2371:12	98	3841:12
66	1742:8	78	2433:12	99	3920:8
66½	1768:18	79	2496:8	100	4000:0
67	1795:12	80	2560:0		
67½	1822:10	81	2624:8		
68	1849:12	82	2689:12		
68½	1876:18	83	2755:12		
69	1904:8	84	2822:8		
69½	1932:2	85	2890:0		
70	1960:0	86	2958:8		
70½	1988:2	87	3027:12		
71	2016:8	88	3097:12		
71½	2044:18	89	3168:8