

www.e-rara.ch

The City and Country Builder's and Workman's Treasury of Designs: or, The Art of Drawing and Working the Ornamental Parts of Architecture

Langley, Thomas

London, 1740

ETH-Bibliothek Zürich

Shelf Mark: Rar 1660

Persistent Link: <https://doi.org/10.3931/e-rara-95>

Chap. II. Of the Intercolumnation or proper Distance that the Columns of every Order, are to be placed at; in the forming of Designs, for Frontispieces, Doors, Windows, etc.

www.e-rara.ch

Die Plattform e-rara.ch macht die in Schweizer Bibliotheken vorhandenen Drucke online verfügbar. Das Spektrum reicht von Büchern über Karten bis zu illustrierten Materialien – von den Anfängen des Buchdrucks bis ins 20. Jahrhundert.

e-rara.ch provides online access to rare books available in Swiss libraries. The holdings extend from books and maps to illustrated material – from the beginnings of printing to the 20th century.

e-rara.ch met en ligne des reproductions numériques d'imprimés conservés dans les bibliothèques de Suisse. L'éventail va des livres aux documents iconographiques en passant par les cartes – des débuts de l'imprimerie jusqu'au 20e siècle.

e-rara.ch mette a disposizione in rete le edizioni antiche conservate nelle biblioteche svizzere. La collezione comprende libri, carte geografiche e materiale illustrato che risalgono agli inizi della tipografia fino ad arrivare al XX secolo.

Nutzungsbedingungen Dieses Digitalisat kann kostenfrei heruntergeladen werden. Die Lizenzierungsart und die Nutzungsbedingungen sind individuell zu jedem Dokument in den Titelnformationen angegeben. Für weitere Informationen siehe auch [Link]

Terms of Use This digital copy can be downloaded free of charge. The type of licensing and the terms of use are indicated in the title information for each document individually. For further information please refer to the terms of use on [Link]

Conditions d'utilisation Ce document numérique peut être téléchargé gratuitement. Son statut juridique et ses conditions d'utilisation sont précisés dans sa notice détaillée. Pour de plus amples informations, voir [Link]

Condizioni di utilizzo Questo documento può essere scaricato gratuitamente. Il tipo di licenza e le condizioni di utilizzo sono indicate nella notizia bibliografica del singolo documento. Per ulteriori informazioni vedi anche [Link]

C H A P. II.

Of the Intercolumnation or proper Distance that the Columns of every Order, are to be placed at; in the forming of Designs, for Frontispieces, Doors, Windows, &c.

Note, That herein I account the Distance or Intercolumnation, from the central Line of one Column, to the central Line of the other; and not from the Outside of the one, to the Outside of the other, as many Persons have done.

I.



THE Distance of *Tuscan* Columns in Pairs is one Diameter 45 Minutes; but when single, in Frontispieces, 4 Diameters; and in Arcades, they may extend from 5 to 7 Diameters, where Necessity requires it, making the Arch a Semi-Ellipsis, instead of a Semicircle; but 6 Diameters is the usual and proper Distance for an Arcade.

II. The Distance of Columns in the *Dorick* Order, is regulated by the Number of Triglyphs that is to be between them. For as the Breadth of a Triglyph is 30 Minutes and the Breadth of a Metope, or Distance between two Triglyphs is 45 Minutes, and as a Triglyph is always placed over the central Line of every Column. Therefore it follows, that to have 1 Triglyph between those over two Columns, the Distance must be 2 Diameters, 30 Minutes; that is, 60 Minutes, or 1 Diameter, for the two half Triglyphs over each Column, and the whole Triglyph between them; and 90 Minutes or 1 Diameter and half, for twice 45 Minutes, the Breadths of the two Metopes. So in like Manner to have two Triglyphs between; the Distance must be 3 Diameters, 45 Minutes; to have 3 Triglyphs 5 Diameters, which *Vitruvius* calls *Aræostyle*; and to have 4 Triglyphs; 6 Diameters, 15 Minutes, which last is used in Colonades, and Arcades; and that of 5 Diameters for Doors, &c.

III. The Distance of Columns in the *Ionick* Order, is regulated by the Number of Modillions, which are placed over Columns, the same as the Triglyphs in the *Dorick* Order. And as the Distance of the central Lines of *Ionick* Modillions, in a Cornice over Columns has been shewn to be 30 Minutes or half a Diameter, therefore the Distance between Columns in this Order to have two Modillions between, which is the least that can be, to have the Columns clear of each other; must be 1 Diameter and an half; to have 3 Modillions between, 2 Diameters and an half; to have 5 Modillions between, 3 Diameters; which last being doubled, is used in Arcades; and that of 2 Diameters and an half doubled, for Doors, &c.

The Distance of *Ionick* Pilasters not diminished, must be greater than of Columns, because the central Lines of their Modillions, are at 35 Minutes Distance; and therefore it follows, that to have two Modillions between, the Distance must be 1 Diameter 45 Minutes; to have three Modillions between two Diameters and 20 Minutes; to have four Modillions between; two Diameters 55 Minutes; and to have five Modillions between, 3 Diameters 30 Minutes, &c.

IV. The Distance of Columns in the *Corinthian* Order, is also regulated by the Number of Modillions between them; and as in Prob. XV. of the *Corinthian* Order, the Distance of their central Lines are 35 Minutes, which is the same Distance,

Distance, as the Modillions in the *Ionick* Cornice over Pilasters; therefore the Distances of *Corinthian* Columns, must be the same, as of *Ionick* Pilasters. And as the Distance of the central Lines of *Corinthian* Modillions, in a Cornice over undiminished Pilasters, is also shewn in Problem XV of the *Corinthian* Order, to be 40 Minutes; therefore it follows; That to have 2 Modillions between, the Distance must be two Diameters; to have three Modillions between, two Diameters 40 Minutes; to have four Modillions between, three Diameters, twenty Minutes, &c.

V. The Distance of *Composite* Modillions in a Cornice over Columns, is the same as in the *Ionick* Order; therefore the Distance of *Composite* Columns and Pilasters are the same, as of *Ionick* Columns and Pilasters.

The Manner of proportioning the several Orders, and determining the proper Distances they are to be placed at, being thus explained; I shall now proceed to give such Explanation of the following Plates, as will render the Business of every Design easy and delightful to every one, who has made himself a Master of the Precedent Orders.

Plate XVI, XVII, XVIII, XIX, XX.

Of PIERS for GATES.

To make these, and all other Designs contained in this Work, easy to the Understanding of all Capacities, and to enable such, to work them, of any Magnitude required; I have to every Design affixed Scales of Aliquot Parts, (which never was done before by any Master) whereby, having only, the Height of any Work to be made (which in all Cases must be) given; the Whole may be performed with the utmost Exactness as required.

As for Example; Let it be required to proportion the Pier G, Plate XVI. to any given Height.

Divide the given Height (suppose ten Feet) into four equal Parts, (as signified by the Scale on its Left Side) give two thirds of the lowest 1 Part to the Height of the Subplinth G; and two

thirds of the other third Part, to the Height of the Plinth, Torus and Fillet. Divide the upper fourth Part, in 3 Parts; and the upper 1 Part thereof in 3 Parts; of which, give the upper 2 Parts to the Height of the Capital; whose Members are above describ'd at large by Fig. B. By the dotted Arch of a Quadrant in the Subplinth G, it is evident, that the Breadth of the middle projecting Part of the Pier; is equal to the Height of the Subplinth, which Breadth divide in 4; and give 1 to the Projection of each Side.

The Height of the Subplinth of the Pine-Apple on the Capital, is one Part, and one third, as signified by the dotted Semicircle: And the Height of the Pine Apple and its Pedestal, is determined by the Intersection of Arches described on the extrem Points of the Capital's Projection, and which being divided in 3 Parts; and the lower 1 in 3, &c. give to every particular Member, its respective Height, as exhibited. The Projection of the Plinth to the Pedestal of the Pine Apple, is two thirds of the Projection of the Middle Part of the Pier.

Now the young Student is to observe, that as the constituent Parts of all the Designs in this Work, are adjusted in the very same Manner; as those of the above Example; which it is manifest are no sooner seen, but understood; it is therefore evident; that to say any Thing further relating thereto, is needless.

These five Plates contain eighteen Designs of Piers for Gates at Enterances into Gardens, Avenues, Courts, Palaces, &c. which may be built either of Stone or Brick, or of both, intermix'd, at the Pleasure of those for whom they may be erected.

Plate XXI, XXII, XXIII, XXIV, XXV.

GATES for Enterances into Palaces, &c.

Five Designs for Gates, of which the first, second, third, and fourth, are according to the *Tuscan*, *Dorick*, *Ionick* and *Corinthian* Orders; whose respective Imposts and Architraves of their Arches are described at large, and proportioned by Aliquot Parts, at the Bottom of each Design; as likewise is, the Impost and Architrave to the Gate Plate XXV. made for an Entrance to the House of a private Gentleman, &c.

Plate

Plate XXVI, XXVII, XXVIII, XXIX, XXX, XXXI, XXXII, XXXIII, XXXIV, XXXV, XXXVI.

FRONTISPIECES for DOORS to MANSION-HOUSES, &c.

These Eleven Plates contain twenty-two Designs of Frontispieces for Doors, of which the first two, Plate XXVI, are composed of Chamber'd Rusticks; and proper for Enterances into Buildings that have Porticoes before them, to carry off the Rains, which themselves cannot do. The next two Designs, Plate XXVII, are also rusticated; the one B, as the preceding; the other with square Rusticks, and being both crowned with Pediments are thereby made fit, to adorn the Enterance of any Building without a Portico; As also, are all the Designs with Pediments in the following Plates. And when it happens, for Want of a proper Height, that a Pediment cannot be made; then in all such Cases the Cornice must break forward, and be supported by Trusses, as A, Plate XXVIII, XXXI, XXXII, to carry off the Rains. It also very often happens, that even when Frontispieces may be finished with Pediments, that the Projection of the Pediment will not be sufficient to protect the Entrance from the Insults of Rains; therefore in such Cases, the Pediments must advance forward, and be sustain'd either by Trusses, as exhibited in Plate XXX, XXXI, or by Pilasters, or Columns, as in Plate XXXIII, XXXIV, XXXV, XXXVI.

As I have finished the greatest Part of these Designs with Pediments of all the Varieties of the Orders, I shall in the next Place shew

How to find the different Curvatures of Raking Mouldings of Pediments, and Modillions. Plate XXXVII.

(1.) Let tl , vb , be the upper Fillet or Regula, and wc , xo , the lower Fillet, of a level Cima Recta of a Cornice, also kl , gb be the Raking Regula or upper Fillet; and ic , mz the lower Fillet of the Raking Cima Recta, and let abc , be the Level Cima Recta given, whose Height is ac , and Projection ab . Divide ac into any Number of equal Parts, suppose 8, and draw the Ordinates $1p$, $2p$, $3p$, &c.

(2.) On any Part of gb , as at e , raise a Perpendicular as ef , to the Height of the Raking Cima, which divide in the same Number of equal Parts as ac , as at the Points $1, 2, 3$, &c. from which draw Ordinates $1p$, $2p$, $3p$, &c. each respectively equal to the Ordinates in the Cima A, and then tracing the Curve dpp , &c. f , it will be the true Curve of the Raking Cima.

(3.) Suppose the Point g Fig. C, to be the utmost Point of Projection, in the Return of the Raking Cima, in an open Pediment.

Draw gb parallel to wc , and from b draw the Perpendicular bi , which divide in eight equal Parts at the Points $1, 2, 3$, from whence draw the Ordinates $1p$, $2p$, $3p$, &c. equal to the Ordinates $1p$, $2p$, $3p$, &c. in Fig. A. From the Point g , through the Points qqq , &c. trace the Curve gpp , &c. i , which is the true Curve of the returned Cima, as required.

Fig. D E F is a second Example of an Ovo-lo, wherein the three several Heights are all equally divided into the same Number of Parts, and the Ordinates of every one, are respectively equal.

Now what is here said with Respect to the Raking Members of a Pediment, is to be also understood of the Members of Raking Modillions. For if Fig. E, or Fig. B, be consider'd as the Front Moulding, then the Figures F and D, or C and A, are the Moulds or Curvatures of the two returned Mouldings.

For this excellent Method I am greatly obliged to the Ingenious Mr. ROBERT HARTWELL, at the Tower of London, Carpenter.

Plate XXXVIII.

To describe the Curvature of a Truss, for the Support of a Cornice, &c.

(1.) Divide the given Height into eleven equal Parts; divide the upper three Parts in seven Parts and make ne the perpendicular Line of the Projection of the upper Volute to eight of those Parts. Also, divide the third and fourth Parts of its Height in seven Parts; and make the Projection of the lower Volute equal to eight of those Parts.

(2.) This done proceed in every Particular to describe the two Volutes, and the Curve ecg , as directed in Sect. II. Prob. XV. of the Corinthian Order, to describe the Volutes or Scrolls of

the *Corinthian* Modillion. Fig. B represents the Eye of a Volute, with its Centres at large; and Fig. A, the Face or Front of a Truss; which divide in eight Parts, give the outer ones to the two Fillets; the middle one, to the Astragal, and its Fillets; and the Remainers on each Side, to the two Cima Recta's.

Plate XXXIX, XL.

Of Attick Windows, whose Diameter and Heights are equal.

These two Plates contain ten Windows, for Attick Stories, which are differently adorned, the first two having Window Stools, the one with plain Brick Work, the other with an Architrave expressed at large, by Fig. G, whose Breadth is equal to one sixth of the Window. The other eight, are also adorned with Architraves, square and knee'd, entire and broken, or interspersed with Rustick Blocks, on Stools, supported by Trusses, of which Fig. C, D, E, F are four Varieties.

Plate XLI.

Of Windows, whose Heights are equal to the Diagonal of a geometrical Square, whose Side is equal to the Diameter of the Window.

This Plate contains four Designs, viz. two square headed, proper for an Attick Story, also one semi-circular, and semi-elliptical headed one, Chambers next under them.

Plate XLII, XLIII, XLIV, XLV, XLVI, XLVII, XLVIII, XLIX, L, LI, LII, LIII.

Of Windows for State Rooms, and their Enrichments.

As these Sort of Windows are sometimes enriched with an Entablature, and plain Architrave only, as those in Plate XLV, XLVI; or have their Architraves interspersed with Rusticks as A, Plate XLIV, &c. I have therefore precedent to them, given three Varieties of Entablatures, fit to be placed over Windows, viz. Fig. A, B, Plate XLII, and B, Plate XLIII, as also for Variety Sake the Block Cornice A, which when practiced, must be placed on Chamfered

Rusticks, as in B, Plate XLIV. Plate XLVII contains a *Dorick* and *Tuscan* Window, the first with Columns, the other with Pilasters, (whose Flutings I shall presently shew, How to describe.) Plate XLIX contains an *Ionick* and *Corinthian*; and Plate L, two *Composite* Windows, which six last are of all others the most magnificent that can be made, except those which are called *Venetian* Windows, of which I have given three Varieties, viz. *Tuscan*, *Dorick* and *Ionick*, in Plate LI, LII, LIII, and which are most proper for a grand Stair-Cafe, Saloon, Library, Chancel of a Church, &c. where much Light is required; or for a Dining Room, &c. whence fine Views may be seen.

Plate LIV.

Of circular and elliptical Windows.

This Plate contains five Varieties of circular Windows, and one oval, differently adorned with Architraves and Rusticks; which are proper for Attick Stories, or in Tympanums of Pediments, &c.

To describe an Oval Window of any Breadth and Height, this is the Rule.

Draw the two Diameters at right Angles, each of their assigned Length. Set half the short Diameter from f the End of the long Diameter to k , and divide the Remains to the Centre b , in three equal Parts, and set one Part from k to i . Make bg equal to bi , and complete the two equilateral Triangles gai , and gni . On the Centres g and i , with the Opening, if describe the Arches dfm and $le\gamma$, and on the Centres a and n with the Opening am , describe the Arches $mo l$, and $\gamma b d$, which completes the Oval, as required.

Plate XLVIII.

To describe the Flutes and Fillets of Pilasters, and to represent, the perspective Appearances of Flutes and Fillets of Columns.

EXAMPLE I. To divide the Flutes and Fillets of any Pilaster, Fig. A.

Draw a Line at Pleasure, as bl , and therein set 29 equal Parts of any Magnitude at Pleasure, and

and complete the equilateral Triangle $A b l$, set the given Breadth of the Pilaster, suppose $i k$, from A , to i , and from A to k , then drawing Lines from A to the first one, the next three, the next one, the next three, &c. in the Line $b l$, they will divide the Line $i k$ into its Flutes and Fillets, as required.

EXAMP. II. To divide the Flutes and Fillets with Beads at the Angles, of any Pilaster, as Fig. B.

Draw a Line as $m p$ at Pleasure, and therein set 31 Parts as before, and then completing the equilateral Triangle $B m p$, proceed in every Respect, as in the preceding Example. And here note, That when the Lines representing the Flutes and Fillets of a Pilaster are thus drawn, on a Draught Board, &c. from those Lines, the Flutes and Fillets of all other Pilasters of greater Diameter may be readily found. As for Example: Suppose the Lines $b f$ and $a d$, Fig. B were the Diameters of two other Pilasters. On any Point, in any Side, suppose on b , with an Opening equal to $b f$, describe the Arch $g e$, cutting the Side of the Pilaster in f ; then drawing the Line $b f$, the several Flutes and Fillets first drawn, will divide that Line in the same Proportion; and so the Line $a d$ the Diameter of the lesser Pilaster.

The Lines $r t$ and $q s$, Fig. B, express the same, in that Pilaster which hath Beads at its Angles.

To represent the perspective Appearances of Flutes and Fillets in the Shafts of Columns, Fig. C, D.

By Prob. XI. of the Ionick Order, describe the Flutes and Fillets in each Semicircle $a g c$, and $c b d$, from whence draw perpendicular Lines, which terminate with Arches, as $x x x$, &c. and the Whole will be completed, as required.

Plate LV, LVI, LVII.

Of NICHES.

These three Plates contain six grand Designs for Niches, of the Tuscan, Dorick, Ionick, Corinthian and Composite Orders, whose Cavities, tho' here represented semicircular, may be made semi-elliptical at Pleasure when required; and as the working of the Heads of Niches, semicircular

semi-elliptical, may be performed two different Ways, which are very curious, I shall therefore now explain those Operations as follows:

Plate LVIII, Fig. K.

To form the Head of a semicircular and semielliptical Niche, by divers Thicknesses of Plank, &c. glew'd together.

(1.) On the Surface of a flat Pannel, &c. large enough to contain something more than the Plan of the Nich, describe a Semicircle, as $1 2 3$, &c. $14, 5 d$ Fig. K, of the same Diameter, as that of the Nich. Take the Thickness of your Plank, &c. in your Compasses; and set that Distance on the Semidiameter $a a$, from a to c , from c to e , &c. and through the Points $c e g i$, &c. draw Lines parallel to the Diameter $1 a d$. Take a Piece of Plank, as Fig. A, and with a Square, applied to its Edge about the Middle of its Length, as at a ; draw a Line, from the under to the upper Surface; the Extrems of which, are two Centres; on which you are to describe two Semicircles; the under one with the Radius $a 1$; the upper one with the Radius $c 2$. With a turning Saw, cut obliquely through the two Semicircles; and then you will have done the first Thickness. Take a second Piece of Plank, as Fig. B; draw a Line on its Edge near its Middle, square to both Surfaces; whose Extrems are two Centres as before. On the under Centre thereof, with the (last) Radius, $c 2$, describe a Semicircle equal to the last (because the under Surface of this second Piece, is to be glew'd on the upper Surface of the first) and on its upper Centre, with the Radius $e 3$, describe a Semicircle on the upper Surface; then cutting through both Pieces as before; the second Piece is done.

(2.) Proceed in like Manner, until the Whole is complete; the Operations of which are expressed by the several Semicircles $3, 3: 4, 4: 4, 4: 5, 5$; &c. in the Figures C, D, E, F, G, I, K, L, M, N, O, which represents, the several Pieces of Plank as their respective Heights above the Base $1 a d$; approach the Zenith of the Nich.

(3.) Glew all these Thicknesses, one on the other; and with a Compass, smoothing Plain, whose Arch is something quicker, than that of the Nich; clear off and finish the Inside.

(4.) An

(4.) An elliptical headed Nich, may be formed in the same Manner, as the preceding; if Semi-Ellipses are described on the Surfaces of the Thicknesses; as the Semicircles aforesaid.

To find the long Diameter of the several Semi-Ellipses.

As they diminish from the Base of the Nich to its Zenith; describe an Ellipsis equal to the Plan, or Face of the Nich; divide its Height into Thicknesses, and drawing Lines through the several Points of Divisions, parallel to its longest Diameter, until they meet the Curve of the Front, in the same Manner, as in the preceding Fig. K; they will be the long Diameters required.

To find their respective semi-short Diameters.

Describe a Quadrant, whose Radius is equal to the Height of the semi-elliptical Head of the Nich. Divide one of its Sides, into the same Number of Parts, as the Number of Thicknesses in the Height. From those Parts or Divisions, draw Ordinates to the Limb; which are the semi-short Diameters, respectively proportionate to the long Diameters before found.

The Heads of Niches are sometimes, formed by Ribs, as Fig. IV, where A is the Plan, and B, the Elevation, of the Ribs, for a semi-circular headed Nich.

The Mould, by which, these Ribs are made, is the Arch of a Quadrant, as ab , Fig. III; or the Arch ab , the half Front of Fig. B. When the Heads of Niches are thus formed, they are either lath'd or plaster'd within Side, or lin'd with thin Deal or Wainscot; which last if performed in a neat Manner; has a very good Effect, and may be thus performed.

To cut out the Lining, for the Head of a semicircular Nich. Fig. I. Plate LVIII.

Let the Semicircle $b48$, represent the Plan of the Head of a semicircular headed Nich, which divide in 16 Parts, and through every other Part draw the Lines Az , Bz , Cz , &c. making their Lengths Ba , &c. equal to the Length of the Arch $b4$; or half the Circumference of the Nich's Head.

Complete the Circle $16b$, $4p$, and draw the Diameter 416 , at right Angles to the Diameter

$bz8$. Divide the Semidiameter $z16$, in eight Parts, and through them draw the Lines bp , iq , kr , &c. and on the Points 9, 10, 11, &c. with the Radius $9p$; $10q$; $11r$; &c. describe Semicircles, as $og10w$; $nfzv$, &c. and divide a fourth Part of each, as $g10$; fz , &c. into 4 equal Parts. On the Point G, with a Radius equal to the Length of the Arch $o16$, or $16w$, describe the Arch $a17b$, also with Radius's the Lengths of the Arches $16n$; $16m$; $16l$; $16k$; $16i$; $16h$; describe the Arches $d18c$; $e19f$; $b20g$; $k21i$, &c. On the Arches ab , dc , ef , &c. set off one fourth Part of the Arches $g10$, fz , &c. from the Points, 17, 18, 19, &c. to the Points ab ; dc ; ef ; hg ; ki ; &c. through which, Lines being traced, from the Point G, to the Points 6 and 7; the Part $G67$ will be an eighth Part completed. In the same Manner complete the other 7 Parts, ABC , &c. and when bent into their Places, they will exactly complete the Lining of the Head of the Nich, as required.

Note, In very large Niches, the Number of Parts may be encreased from 8 to 12, 16, 20, &c. at Pleasure.

Fig. II. is the Plan of the Head of a semi-elliptical Nich, composed of Ribs for Lath and Plaster, whose Bases are represented by $abcd$ ef . The Front of this Nich, is the very same Semi-Ellipsis, as the Plan afg . But the several Ribs, which stand on the Plan to form the Head, are different, as being all Quarter Parts of Ellipses, whose longest Diameters are less; excepting the Front Rib, that stands over the Base fb , which is the fourth Part of a Circle, whose Radius is fb .

To form the Curves of the Ribs, to stand on the Parts bcd , consider their Bases bb , cb , db , and eb , as half the long Diameters of so many Ovals and fb is half the short Diameter to every of them in general. Then by the Rule given in Plate LIV, to describe an oval Window of any Breadth and Height; describe the Curves for the several Ribs required; which are no more than the Quarter Parts of so many complete Ovals.

Plate LIX, LX.

Eight Designs for Marble Cisterns, for Buffets, Side Board Tables, &c.

Plate

Plate LXI, LXII, LXIII, LXIV, LXV, LXVI, LXVII, LXVIII, LXIX, LXX, LXXI, LXXII, LXXIII, LXXIV, LXXV, LXXVI, LXXVII, LXXVIII, LXXIX, LXXX, LXXXI, LXXXII, LXXXIII, LXXXIV, LXXXV, LXXXVI, LXXXVII, LXXXVIII, LXXXIX, XC, XCI, XCII, XCIII.

Of Chimney Pieces, and their Enrichments.

In these thirty-three Plates, there are sixty-three of the best Designs for Chimney Pieces, and their Ornaments, (containing great Variety of Tabernacle Frames, Shields, Festoons, &c.) that have been yet published by any one Master in Europe, if not in the whole World.

Plate XCIV, XCV, XCVI, XCVII, XCVIII, XCIX, C, CI, CII, CIII, CIV, CV.

Of Pavements, Frets and Gulochi's.

Twenty-seven Designs of Marble Pavements, for Halls, Baths, &c. the last nine of which, are environ'd with thirty-six Varieties of Frets, Gulochi's and Borders, which in general may be as well applied for Borders to Pavements; as to enrich the Plances of Architraves; or other ornamental Parts of Architecture, wherein they are commonly introduced, and more particularly such that may be view'd from a Gallery.

Plate CVI, CVII, CVIII, CIX, CX, CXI.

Of ALTAR PIECES.

Six Altar Pieces, of which the first two, are for Chapples, and the others for Churches.

Plate CXII, CXIII, CXIV, CXV, CXVI, CXVII.

Of PULPITS.

Six Designs for Pulpits, which in general have their Plans, Types and Members represented at large; which the ingenious Workman may perform with Pleasure.

Plate CXVIII, CXIX, CXX, CXXI, CXXII.

TABLES for MONUMENTAL INSCRIPTIONS.

Twenty-two Designs for Tables of Renown, for perpetuating to Posterity, the Memoirs of worthy Persons deceased.

Plate CXXIII, CXXIV, CXXV, CXXVI, CXXVII, CXXVIII, CXXIX, CXXX, CXXXI, CXXXII, CXXXIII, CXXXIV, CXXXV, CXXXVI.

Of MONUMENTS.

Twenty-one Designs for Monuments, enriched with Vases, Bas-Relievoes, Bustoes, &c. from which the ingenious Workman may receive such Hints, as to invent others innumerable.

Plate CXXXVII.

Of TOMBS.

Here, for Variety Sake, I have given a Plan, and two Elevations, by which 'tis evident, that these Kinds of Tombs are nothing more, than regular Pedestals, crowned with large Tables for Inscriptions.

To make these Tombs, truly grand, they should be ascended, by three Steps, giving to the upper Step, a Breadth at least double that of the others.

In Plate CXXXII is shewn, how much an Object appears less, as 'tis elevated above the Eye. Suppose the Object D, whose lower Part is level with the Eye *k*, be rais'd from *a* to *c*; then its real Height *cd*, will appear to the Eye at *k*, to be no higher than *fg*; because *kg* and *ka* are equal; and *fg* is seen under the same Angle as *dc*.

To make a Monument, &c. placed on the Point *c*, appear of equal Height, with a Monument view'd level with the Eye as D; draw the Lines *io k*; *5 k*; and *ck*. On the Point *k* with any Radius, describe an Arch as *xxzz* at Pleasure. Make the Arch *xz*, equal to the Arch *zz*, and from *k* through the upper *x*, draw the Line *kxbe*; then the Height *ec*,
H equal

equal to eight Feet is the Height required, at fifteen Feet above the Eye; that shall appear equal to five Feet, view'd level with the Eye. For as the Angle ekc , is equal to the Angle $io k 5$; and as ec is perpendicular over ab ; therefore, the Height ec , though three Feet more than ab , will appear to the Eye at k to be but of the same Height of ab , viz. five Feet.

As very often, it is required to erect Monuments in Churches, at some considerable Heights above the Eye; I therefore for the Sake of Masons, thought it necessary to demonstrate the preceding, that they might avoid Errors in proportioning such Works for the future.

Plate CXXXVIII.

Of OBELISQUES.

Here I have given four Varieties of Obeliskes, viz. Fig. A. whose Base is a geometrical Square; Fig. B an equilateral Triangle; Fig. C an Octagon; and Fig. D a Circle.

Plate CXXXIX, CXL.

Of TIME PIECES.

Two Time Pieces, for the Inside of Churches; as against a Gallery, &c.

Plate CXLII, CXLIII, CXLIV, CXLV, CXLVI, CXLVII.

FRAMES for MARBLE TABLES in Rooms of State, &c.

Ten Designs for the Feet and Frames of Marble Tables, after the French Manner.

Plate CXLVIII, CXLIX.

Of MARBLE and STONE TABLES for Grotto's and Arbors in Gardens.

Here are four Varieties of Tables, and as many of their Pedestals, whose Plans explain their

Figures to be circular, octangular, hexangular and square.

Plate CL.

Of Christening FONTS for Churches, and their Pedestals.

Four Fonts for the Baptism of Children in Churches, which to be grand, should be erected on a spacious Ascent of three Steps, that thereby, during the Performance of Baptism, the Priest may be elevated above the Congregation.

Plate CLI, CLII.

PEDESTALS for SUN-DIALS, and BUSTO'S.

The first Six Pedestals, are designed for Horizontal Sundials, which when erected, should be elevated about three Steps from the Ground; whereby they will be less liable to be displaced, by Accident, and thereby rendered useless. The last four Pedestals are designed for Busto's, placed in Buildings or Gardens.

Plate CLIII, CLIV, CLV, CLVI.

A Chest of Draws, a Medal Case, a Cabinet of Draws, and a Dressing Table, enriched after the French Manner.

Plate CLVII, CLVIII, CLIX, CLX, CLXI, CLXII, CLXIII, CLXIV.

Eight Designs of Book Cases, which if executed by a good Joiner, and with beautiful Materials, will have good Effects; or even if by a Cabinet Maker, provided that he understands, how to proportion and work the Five Orders, which at this Time to the Shame of that Trade be it spoken; there is not one in a Hundred, that ever employed a Moment's Thought therein; or knows the Tuscan from the Dorick, or the Corinthian from the Composite Order, and more especially if the Dorick Freeze hath its Triglyphs and Mutules omitted. In short, the ultimate Knowledge of these

these Sort of Workmen, is generally seen to finish with a monstrous Cove, on an Astragal, crowned with a Cima Reverfa, in an open Pediment of stupid Height.

When a Gentleman applies himself, with a good Design of a Book Case, &c. made by an able Architect, to most of the Masters in this Trade; they instantly condemn it; and alledge, that 'tis not possible to make Cabinet Works look well, that are proportioned by the Rules of Architecture; because, they say, that the Members will be too large and heavy, &c. whereas the real Truth is, they do not understand, How to proportion and work the Members of those Designs; and therefore advise the Unwary, to accept of such *Stuff*, as their poor crazy Capacities will enable them to make, and wherein 'tis always seen, that the Magnitudes of their Coves and Cima Reverfa's (*their darling Finishing*) are much larger Members than any Members of a regular Cornice, (even of the *Tuscan Order*) of the same Height, wherefore, 'tis evident, that all their Assertions of this Kind, are used for nothing more than to conceal an infinite Fund of stubborn Ignorance, which cannot be paralleled by any other Set of Mortals in the World. This I mention that for the future, Gentlemen may have a more particular Regard in the Choice of Works and Workmen in this Way, than they have heretofore done. For I do affirm, that a good Joiner, will not only execute a Design of this Nature, in much less Time, than any of the common Run of Cabinet Makers can; but will perform it in that masterly Manner, which is known but to very few, if any, of the Cabinet Trade.

Plate CLXV, CLXVI, CLXVII, CLXVIII, CLXIX, CLXX, CLXXI, CLXXII, CLXXIII, CLXXIV, CLXXV, CLXXVI, CLXXVII, CLXXVIII.

Fourteen Designs for Cielings, with great Variety of Enrichments; wherein is contained for the Use of Carpenters, the Manner of forming Angle Brackets, for a Plaster Cove of a Cornice, as follows:

I. To form the Curve, of the Angle Bracket A, for a Plaster Cove, Plate CLXV.

Let B be a Front Bracket standing at the Angle a , whose Projection is equal to ac ; and when up in its Place, will stand over the Line ac ; for which Reason I call it, the Base of that Bracket. Draw ab , the Base of the Angle Bracket, and divide ac and ab , the two Bases, each in the same Number of equal Parts, suppose, 6, 8, 10, &c. as at the Points 1, 3, 5, &c. From the Points 1, 3, 5, &c. draw Ordinates, perpendicular to the two Bases, as cf ; 1, 2; 3, 4; 5, 6; &c. and make the Ordinates 1, 2; 3, 4; 5, 6; &c. on ab the Base of the Angle Bracket, equal to the Ordinates 1, 2; 3, 4; 5, 6; &c. on ac the Base of the Front Bracket. Then fixing Nails, in the Points g 2 4 6, &c. to a ; bend a thin Lath of equal Thickness to them, and trace the Curve g 2 4 6, &c. a , which is the Curve of the Angle Bracket, for the Cove as required.

II. To form an Angle Bracket for a Plaster Cornice. Fig. A. Plate CLXVIII.

Let $bfb a$, be a Front Bracket, da its Height; db its Projection, and the Line ea its Base, when erected in its Place, at the Angle a . Draw na , the Base of the Angle Bracket, and raise the Perpendiculars as ; and nr ; each equal to da the Height of the Front Bracket. From the Points f and b , draw down the Lines fi , bk , and continue them to ml . Draw mq , and lo , parallel to nr . Make lo , equal to kb ; and mq , equal to if . Then drawing the Lines ao , op , pq , and qr , the Angle Bracket will be finished, as required.

Note, That a Bracket for an external Angle, has no Difference from a Bracket for an internal Angle, the *Backing* only excepted; the Back of the former having its Angle convex; and the latter (if strictly performed which is seldom done) concave to its central Line. And what is here said, for finding the Curve or Form of a Bracket, at a Right Angle; is to be also observed and practiced, for finding the Curve or Form of a Bracket at any Acute, or obtuse Angle whatsoever, after having found, the Base Lines of the Front and Angle, over which the two Brackets are to stand, when in their Places, as ea , and na , in the last Example.

PLATE CLXXIX, CLXXX, CLXXXI,
CLXXXII, CLXXXIII, CLXXXIV,
CLXXXV, CLXXXVI.

Twenty-two Designs for Iron Works of the most exquisite Taste, from which many curious Enrichments, may be composed, for the Embellishments of Cabinet Works, Cielings, &c.

In Plate CLXXIX, Fig. A contains four Varieties of Pannelling for Balconies; and Figures

B and C, are two Varieties, for square Pannels to Gates, &c.

In Plate CLXXX is four Varieties of Raking Pannels for Stair Cafes, and in Plate CLXXXII is three other Varieties for the same Use.

Plate CLXXXI, contains five Varieties of Pannelling for Iron Gates, and Plate CLXXXIII, CLXXXIV, CLXXXV, CLXXXVI, four grand Designs for Iron Piers, with their Gates and Ornaments.

P. S. If these Designs, prove useful to Workmen, for whose Service they are published; I shall be encouraged, in a short Time, to communicate a Second Volume of other Designs; and at the Request of a great Number of Carpenters; I shall add; all the useful Rules of CARPENTRY for trussing of GIRDERS, BEAMS, PRINCIPAL RAFTERS, &c. Framing of PARTITIONS, FLOORS, ROOFS, TIMBER BRIDGES, &c.

F I N I S.

