Pearl'd, or *Flower'd Crowns*, thoſe with Pearls, or Leaves of Smallage, Parſley, &c. ſuch as were antiently almoſt all *Crowns*, even thoſe of Sovereign Princes: Tho they were not us'd in their Armouries, till about 200 Years ago.

CROWN, in Geometry, a Plane included between two parallel or concentric Perimeters, of unequal Circles; generated by the Motion of ſome Part of a Right Line round a Centre, the moving Part not being contiguous to the Centre.

The Area of this is had, by multiplying its Breadth by the middle Perimeter; for a Series of Terms in Arithmetick Progreſſion being $n \times \frac{a+\omega}{2}$; that is, the Sum of the firſt and laſt multiply'd by half the Number of Terms, the middle Element muſt be $\frac{a+\omega}{2}$; wherefore, that multiply'd by the Breadth or Sum of all, the two Terms will give the *Crown*.

CROWN-*Office*, a Court or Office ſo called, becauſe the *Crown* is more immediately concern'd in what is therein tranſacted. See CROWN.

Tho none of the Officers under the Lord Chief Juſtice are employ'd in ſummoning a Parliament; yet, many of them have Buſineſs in other Matters, during the ſitting of the Parliament: As, in Caſes of Error, &c. but more eſpecially on Trials of Peers; wherein the Clerk of the *Crown* is chief Manager.

He hath likewiſe, out of Parliament, all Indictments in the *Crown*, Informations, Recognizances; and a multitude of other Buſineſs runs thro' his Hands, as the writing of all Pleadings, Declarations, and other Proceedings upon Records: but the executive Part is left to his Secondary or Deputy.

CROWN-GLASS, the fineſt ſort of Window-Glaſs. See GLASS.

CROWN-POST, in Architecture, a Poſt which in ſome Buildings ſtands upright in the middle, between two principal Rafters. See POST.

CROWN-WHEEL *of a Watch*, is the upper Part next the Balance, that drives it by its Motion. See WATCH.

CROWN-WORK, or CROWNING, in Fortification, Outworks running in the *Campagne*, to keep off the Enemy, to gain ſome Hill, or advantageous Poſt, and to cover the other Works of the Place. See OUTWORK.

It conſiſts of two Demi-Baſtions at the Extremes, and an entire Baſtion in the middle, with Courtines.

CROWNED *Horn-work*, is a Horn-work with a *Crown-work* before it. See HORN-WORK.

CROWNING, is underſtood, in the general, of any thing that terminates, or finiſhes a Decoration of Architecture: Thus, a Cornice, a Pediment, Acroteria, &c. are call'd *Crownings*. See ACROTER, &c.

Thus, alſo, the Abacus is ſaid to *crown* the Capital; and thus any Member or Moulding is ſaid to be *crown'd*, when it has a Fillet over; and a Niche is *crown'd*, when it is cover'd with a Capital. See MOULDING, NICHE, &c.

CROUPADE, or *Groupade*, in the Manage, a Leap, higher than the Corvet, wherein the fore and hind Part of a Horſe keep an equal height; his Legs being truſs'd under his Belly, without ſtretching 'em out, or ſhewing his Shoes.

CROUPER, or CRUPPER, the hind Part of a Horſe; comprehended between the Place of the Saddle, and the Tail.

The Word is form'd from the German *Grub*, thick, fat: *Du Cange* derives it from the Italian *Groppa*, Buttock.

CRUCIAL *Inciſion*, in Chirurgery, an Inciſion, or Cut into ſome fleſhy Parts, in form of a Croſs.

CRUCIBLE, a little Veſſel, ordinarily of Earth, ſometimes Iron, without any Handle; us'd by Chymiſts, Coiners, Goldſmiths, Glaſiers, and other Artificers; to melt and calcine Gold, Silver, or other Metals whereon they work. See FUSION, CALCINATION, &c.

Earthen *Crucibles* are made of glaz'd Earth, with Stone Potſherds pounded and ſifted: They are of various Sizes, but generally of the ſame Form, which reſembles that of an inverted Cone, or Pyramid.

'Tis theſe are chiefly us'd in Coinage, as being the only ones in which Gold will melt without irritating. Iron *Crucibles* are in form of little Pails without Handles, made of Iron well forg'd and beaten: In theſe they melt Silver, Copper, &c.

There are Earthen *Crucibles* that hold from 100 to 3 or 400 Marks; but thoſe ordinarily us'd are but of 100. The Iron ones are larger; ſome holding 12 or 1500 Marks: Theſe are not taken off the Furnaces when the Plates are to be run, but the Metal is laden out with an Iron Ladle. 'Tis a Rule never to put as much Metal in the *Crucible* as it will hold. See COINAGE.

The *Crucibles* uſed by Goldſmiths and Founders are like thoſe uſed in the Coinage: Thoſe of Chymiſts, &c. are of all Sizes, according to the Quantity and Quality of the Metal to be put in 'em.

The Word comes from the Hebrew *Keres*, *teſta*, *fictile*. *Du Cange* derives it from *Cruſelinum*; which, in the lower *Latin* ſignifies a little drinking Veſſel.

CRUCIFIX, a Croſs, whereon the Body of Jeſus Chriſt is faſten'd in Effigy; much us'd by the *Romaniſts* in their Churches, and other Places, to recognize the Paſſion of Jeſus Chriſt, and to ſerve them to direct their Prayers to. See CROSS.

There are ſome Chapters wherein Jeſus Chriſt is the firſt Canon, and the Fruits of the Prebend go to the Subſiſtence of the *Crucifix*.

CRUCIFIXION, an antient Form of Execution; by faſtening the Criminal to an erected Croſs. See CROSS.

CRUDE, ſomething that has not paſs'd the Fire, or has not had the degree of *Coction*, *i. e.* of Heat, requiſite to prepare it for eating, or ſome other Purpoſe. See COCTION.

Crude or Raw Silk, is that which has not been put in boiling Water, to unwind it from off the Cod; nor boil'd in Water and Soap, to fit it for dying. See SILK.

In Chymiſtry, they call *Crude Antimony* that which comes immediately from the Mines, without any Preparation. See ANTIMONY.

In Medicine, *Crude Humours* are thoſe which want of that Preparation and Elaboration which they ordinarily receive from Digeſtion. See CRUDITY.

The Retainers to the Doctrine of Trituration, hold that the *Crudity* of the Humours only conſiſts in this; that they are not broke and comminuted ſo much as they ſhould be by the ordinary Action of the Stomach. See TRITURATION.

CRUDITY, in Medicine, the State of a Diſeaſe, wherein the morbifick Matter is of ſuch Bulk, Figure, Coheſion, Mobility, or Inactivity, as denominates it *crude*, *i. e.* as creates or increaſes the Diſeaſe. See DISEASE.

A *Crudity* is diſcover'd, 1ſt, from the Diſeaſe's continuing its degree of Strength, or increaſing. 2d, From a continual Increaſe of Symptoms. 3d, From a diſorderly Exerciſe of the Functions. 4th, But chiefly from a Fault in the Quantity or Quality of the Humours; both thoſe ſtill circulating, and thoſe ſecreted, and evacuated: as of Sweat, Tears, Mucus of the Noſe, Saliva, Sputum, the Bile, Urine, Ichor, Pus, Blood, Menſes, Loches, Milk, Aphthæ, &c.

That State of the Diſeaſe, wherein the *crude* Matter is changed, and render'd leſs peccant, and laudable, is call'd Digeſtion, Concoction, or Maturation. See DIGESTION, CONCOCTION, &c.

CRUISE, from the German *Kruis*, a-croſs, ſignified to croſs to and fro, to ſail up an down for guard of the Seas, &c.

CRUOR, a Term uſed by Anatomiſts for the red Globules of the Blood; in contradiſtinction to the limpid or ſerous Part. See BLOOD.

Some Authors, Dr. *Keill* and Dr. *Woodward* for inſtance, ſuppoſe theſe Globules replete with an elaſtick Aura, or Air; and on this Principle account for ſome of the Phænomena of the Animal Oeconomy; particularly Muſcular Motion, &c. But Dr. *Jurin* has overturn'd that Suppoſition. See MUSCULAR *Motion*.

Vanhelmont uſes the Word *Cruor* for the Blood in the Veins; in contradiſtinction to the Blood in the Arteries, which he calls *ſanguis*. See VEIN, and ARTERY.

CRURA *Clitoridis*, in Anatomy. Between the *Corpora Nervoſa* of the *Clitoris*, runs a *Septum*, or membranous Partition, from the Glans to its Divarication at the *Os Pubis*; dividing the *Clitoris* into two Parts, call'd the *Crura of the Clitoris*.

Theſe are three times as long as the ordinary Trunk of the *Clitoris* it ſelf. See CLITORIS.

CRURA *of the Medulla Oblongata*, are two of the four Roots whence the *Medulla Oblongata* ſprings, in the Brain.

The *Crura* are the larger Roots; the two ſmaller are call'd *Pedunculi*. See MEDULLA *Oblongata*.

CRURAL, in Anatomy, an Epithet given to the large Artery and Vein of the Thigh. See THIGH.

The *Crural Artery* ariſes from the Iliac Artery; or rather, 'tis the Iliac it ſelf, under another Name; being call'd *Crural*, from the Place of its Entrance into the Thigh. See ILIAC.

It conveys Blood thro' all the Part, by means of a great Number of Branches diſſeminated thro' its Subſtance.

The *Crural Vein* is form'd of ſix other Veins, *viz.* the *great* and *little Sciatica*, the *Muſcula*, the *Poplitea*, the *Sural*, and the *Saphena*. See SCIATICA, &c.

CRURÆUS, in Anatomy, a Muſcle ariſing from the fore Part of the Thigh-Bone, between the leſſer and greater Trochanter, and lying cloſe upon the Bone, joins its Tendon with three others, which altogether make one broad Tendon, that paſſes over the *Patella*, and is inſerted into the little Tuberoſity on the upper and fore Part of the *Tibia*.

'Tis call'd *Cruræus*, as being faſten'd in the Thigh-Bone in the ſame manner as the *Brachiæus* to the Arm. Its uſe is to extend the Leg.

CRUS, among Anatomiſts, is all that Part of the Body which reacheth from the Buttocks to the Toes; and is divided into *Thigh*, *Leg*, and *Foot*. See each in its Place, THIGH, &c.

CRUSCA, an *Italian* Term, ſignifying *Bran*, or what remains of Meal after the Flower has been ſifted out.

It is only in uſe among us for that celebrated Academy call'd *Della Cruſca*, eſtabliſh'd at *Florence*, for the Purity and Perfection of the *Tuſcan* Language. See ACADEMY.

The Academy took its Name from its Office, and the End propos'd by it; which is, to purify the Language, and as it were to ſeparate it from the Bran. Accordingly, its Device is a Sieve, and its Motto, *Il piu bel fior ne coglie*; that is, *It gathers the fineſt Flower thereof.*

In the Hall or Apartment where the Academy meets, M. *Monconis* informs us, every thing bears an Alluſion to the Name and Device: the Seats are in form of a Baker's Baſket; their Backs like a Shovel for moving of Corn: The Cuſhions of gray Sattin in form of Sacks, or Wallets; and the Branches where the Lights are diſpos'd, likewiſe reſemble Sacks.

The Dictionary *Della Cruſca* is an excellent *Italian* Dictionary, compos'd by this Academy.

CRUSTA *Villoſa*, in Anatomy, the fourth Tunic, or Coat, of the Stomach. See STOMACH.

On the inner Surface of this Coat, are ſeen innumerable *Villi* or *Fibrillæ*, riſing every where perpendicularly from it; which ſome will have to ſerve for nothing but a Defenſative to the Stomach, to preſerve it from acrimonious Humours: but Dr. *Drake* rather takes 'em to be excretory Ducts to the ſubjacent Glands; which ſome Authors would have to be that now exploded thing a *Parenchyma*; but which are, indeed, the Organs by which moſt of that Humour which is diſcharg'd upon the Stomach, is ſeparated; and theſe *Villi* the immediate Channels thro' which it is convey'd. See STOMACH.

CRUSTACEOUS *Fiſhes*, in Natural Hiſtory, are thoſe cover'd with Shells, conſiſting of ſeveral Pieces, or Scales; as thoſe of Crabs, Lobſters, &c. See FISHES.

Theſe are uſually ſofter than thoſe of the Teſtaceous kind, which conſiſt of a ſingle piece, uſually much thicker and ſtronger than the former; ſuch as thoſe of the Oyſter, Scallop, Cockle, &c. See SHELL.

Dr. *Woodward* obſerves, in his Natural Hiſtory, that of all the Shells and Nautili found in Beds of all the different Matters dug out of the Earth, there are ſcarce any of the *Cruſtaceous* Kind: The Reaſon he gives for it is, that theſe being much lighter than the reſt, muſt have floated on the Surface at the time of the Deluge, when all the Strata were form'd; and there have corrupted and periſh'd. See DELUGE.

CRUZADO, in Commerce, is a *Portugueze* Coin, ſtruck under *Alphonſus* V. about the Year 1457, at the Time when Pope *Calixtus* ſent thither the Bull of a *Croiſade*, againſt the Infidels. See COIN.

It had its Name from a Croſs, which it bears on one ſide; the Arms of *Portugal* being on the other. A *Cruzade* is of the Value of 40 Sols. See SOL.

CRUZADO, or CROISADE, an Expedition to the Holy Land. See CROISADE.

CRYPTA, a ſubterraneous Place, or a Vault; eſpecially under a Church, for the Interment of particular Families, or Perſons. See TOMB.

S. *Ciampini*, deſcribing the Outſide of the *Vatican*, ſpeaks of the *Cryptæ* of St. *Andrew*, St. *Paul*, &c. See CATACOMB.

Vitruvius uſes the Word for a Part of a Building, anſwering nearly to our Cellar; *Juvenal*, for a *Cloaca*.

Hence, *Crypto-Portico*, a ſubterraneous Place, arch'd, or vaulted; us'd as an Underwork, or Paſſage in old Walls. The ſame is alſo us'd for the Decoration at the Entry of a Grotto. See GROTTO.

CRYPTA, is alſo uſed by ſome of our antient Writers, for a Chapel, or Oratory under ground: *Egreſſo toto conventu, accepta abſconſa ſi nox eſt vadit per* cryptam. *Du Cange.*

The Word is form'd of the *Greek* κρύπτω, *abſcondo*, I hide; whence κρύπτη, *Crypte*.

CRYPTOGRAPHY, the Art of *Secret Writing*, or writing in *Cipher*. See CIPHER, and DECIPHERING.

The Word is compounded of κρυπτω, *I hide*, and γραφω, *I deſcribe*.

CRYSTAL, in Natural Hiſtory, a Kind of Mineral; or rather, a tranſparent Stone, white, like a Diamond, but much inferior thereto in Luſtre and Hardneſs; uſed for Vaſes, Urns, Mirrors, &c.

The Antients were but little acquainted with the Nature of *Cryſtal*: *Pliny* ſpeaks of it as harden'd, petrified Water, which was the popular Opinion of thoſe Days; but Experience has ſhewn us the contrary: for by a Chymical Analyſis, inſtead of reſolving into Water, it yields nothing but a Calx, Earth, and Salts.

For the Places where 'tis found, *Pliny* adds, that he has ſeen it dug from off the higheſt and roughеſt Rocks of the *Alps*; whence, doubtleſs, its Name of *Rock-Cryſtal*. 'Tis ſometimes alſo found in Brooks and Rivers, but not form'd there; only waſh'd down thither from off the Mountains by the violent Rains.

Several Mountains of *Europe*, and ſome of *Aſia*, produce *Rock-Cryſtal*: If we may believe the *French* Relation of *Madagaſcar*, that Iſland yields more than all the World beſides.

Its Perfection conſiſts in its Luſtre and Tranſparency; that with Straws, Duſt, Clouds, &c. is little valued. It is frequently found Hexagonal; the Edges inimitably fine and accurate.

'Tis cut or engrav'd in the ſame manner, with the ſame Inſtruments, and by the ſame Workmen as Diamonds. See DIAMOND, and ENGRAVING.

Cryſtal is of ſome uſe in Medicine, being an Aſtringent; and as ſuch uſed in Diarrhæas and Dyſenteries: 'Tis alſo uſed to increaſe the Milk of Nurſes; and, further, is eſteem'd a good Antidote againſt Arſenic.

The Word comes from the *Greek* κρύσταλλος, *Glacies*; form'd of κρυος, *frigus*, and στέλλομαι, *concreſco*, becauſe of its reſembling Ice.

The Formation of CRYSTAL, is deliver'd by F. *Franciſco Lana* in the *Philoſophical Tranſactions*, to this Effect: 'In the *Val Sabbia* I obſerv'd a ſpacious round of a Meadow, ſome Parts whereof were bare of all Herbs; wherein, and no where elſe thereabout, *Cryſtals* are generated: all Sexangular; both Points terminating in a pyramidal Figure, likewiſe Sexangular. The Country-People told me, They were produc'd from the Dews; becauſe, forſooth, being gather'd over night, there would others ariſe, only in a ſerene and dewy Sky. But having obſerv'd that there was no mark of any Mine thereabout, I concluded it might be a plenty of Nitrous Steams; which at the ſame time might hinder the Vegetation on thoſe Places, and coagulate the Dew falling thereon: For Nitre is not only the natural Coagulum of Water, as is manifeſt in artificial Glaciations, but ever retains the aboveſaid Sexangular Figure; which, by the way, may be the Cauſe of the Sexangular Figure of Snow.

——'Since *Cryſtals* are only found in thoſe narrow Places, 'tis probable, thence are rais'd the Exhalations that concrete the Dew; after the ſame manner as the Vapour or Exhalation of Lead coagulates Quickſilver.'

Rohault ſhews, that *Cryſtal*, Diamond, &c. muſt have been originally liquid, from their Figure, which is ſuch as Drops of Water of the ſame Size muſt neceſſarily have; and ſuch as Globules of Meal or Flower, heap'd up and compreſs'd by their own weight, might have: For as each *Cryſtal* is encompaſs'd and cloſed round with ſix others; ſo it becomes modell'd into a hexangular Body, conſiſting of equal and ſquare Sides.

Boerhaave takes *Cryſtal* to be the proper Matter, or Baſis of all Gems or Precious Stones, which aſſume this or that Colour, &c. from the different Admixture of Mineral and Metalline Fumes, with the primitive *Cryſtalline* Matter. See STONE, GEM, &c.

CRYSTAL is alſo uſed for a factitious Body, caſt in the Glaſs-Houſes; called alſo *Cryſtal-Glaſs*. See GLASS.

It is, in effect, a Glaſs; but carried, in the Melting, and in the Matter whereof it is compos'd, to a degree of Perfection far beyond the common Glaſs; tho it comes far ſhort of the Whiteneſs and Vivacity of the Natural *Cryſtal*.

The beſt Artificial *Cryſtals* are thoſe made at *Mouran* near *Venice*; call'd *Venice Cryſtals*.

CRYSTALS, in Chymiſtry, expreſs Salts, or other Matters, ſhot, or congeal'd in manner of *Cryſtal*. See CRYSTALLIZATION. Thus,

CRYSTAL *of Allum*, is Allum purified, and reduced into *Cryſtals*, in the ſame manner as Tartar. In like manner are Vitriol, Nitre, and other Salts *cryſtalliz'd*.

Cryſtals of Allum are quadrangular, and brilliant like Diamonds; thoſe of Nitre, white, and oblong; thoſe of Vitriol, green, quadrangular, and ſhining. See SALT.

CRYSTAL, or *Cream of Tartar*, is that Drug purify'd and diſſolv'd, and again coagulated in form of *Cryſtals*. See TARTAR.

To prepare it, they boil Tartar in Water, ſkim it, and ſtrain it; when cool, there are form'd little white, ſhining *Cryſtals* at the Edges, as alſo a Pellicle, or Cream ſwimming a-top.

The Cream and *Cryſtals* were antiently ſuppos'd to be different; but are now found the ſame Thing. See CREAM.

Cryſtal of Tartar is eſteem'd Purgative, and Aperitive; proper in Hydropical and Aſthmatical Caſes, and Intermitting Fevers.

CRYSTAL *of Tartar chalybeated*, is when 'tis impregnated with the moſt diſſoluble Parts of Iron. See CHALYBEAT.

CRYSTAL *of Tartar emetic*, is when 'tis charg'd with the ſulphureous Parts of Antimony, to render it vomitive. See EMETIC.

CRYSTAL *Mineral*, call'd alſo *Mineral Anodyne*, and *Sal Prunella*, is Salt-petre prepar'd with Sulphur; thus: Put half a Pound of Salt-petre in a Crucible, and ſet that in a Furnace; and when the Salt-petre is in Fuſion, add, at ſeveral times, two Drachms of Flower of Sulphur. After the Flame is over, invert the Crucible in a flat Pewter Baſon, that the Salt may ſhoot.

This is eſteem'd good againſt the Squinancy, whence its Name of *Sal Prunella*; *Pruna*, or *Prunella*, expreſſing that Diſeaſe. See PRUNELLA.

CRYSTALS *of Silver*, or *of Luna*, is Silver, penetrated and reduced into the form of Salts, by the pointed Acids of Spirit of Nitre. See SILVER.

'Tis uſed for making Eſchars, by applying it to any Part: 'tis alſo of uſe internally, in Dropſies, and Diſeaſes of the Brain.

CRYSTALS *of Mars*, call'd alſo *Salt*, or *Vitriol of Mars*; is Iron reduced into Salts by an acid Liquor; uſed in Diſeaſes ariſing from Obſtructions. See MARS.

CRYSTALS *of Venus*, call'd alſo *Vitriol of Venus*; is Copper reduced into the form of Vitriol by the Spirit of Nitre; very cauſtick, and uſed to cut off proud Fleſh. See VITRIOL.

Iſland CRYSTAL, is a tranſparent fiſſile Stone, brought from *Iſland*; ſoft, as Talc; clear, as Rock-*Cryſtal*, and without Colour; famous among optic Writers for its unuſual Refractions. See REFRACTION.

It bears a red heat without loſing its Tranſparency; and, in a very intenſe heat, calcines without Fuſion: Steep'd a day or two in Water, it loſes its natural poliſh; rubb'd on Cloth it attracts Straws, *&c.* like Amber. In effect, it appears a kind of Talc; and is found in form of oblique Parallelopipeds with ſix parallelogram Sides, and eight ſolid Angles. See TALC.

The Phænomena of this Stone are very remarkable, and have been examin'd with great accuracy by M. *Huygens* and Sir *I. Newton*: For, firſt, whereas in other pellucid Bodies there is only one Refraction, in this there are two; ſo that Objects view'd thro' it appear double.

2dly, Whereas in other tranſparent Bodies, a Ray falling perpendicularly on the Surface, paſſes ſtrait thro', without ſuffering any Refraction; and an oblique Ray is always divided: In *Iſland Cryſtal*, every Ray, whether perpendicular or oblique, becomes divided into two, by means of the double Refraction. One of theſe Refractions is, according to the ordinary Rule, the Sine of Incidence out of Air into *Cryſtal*, being to the Sine of Refraction as five to three; but the other is perfectly new. The like double Refraction is alſo obſerv'd in *Cryſtal of the Rock*, tho much leſs ſenſibly.

When an incident Ray is thus divided, and each Moiety arrives at the further Surface; that, refracted in the firſt Surface after the uſual manner, is refracted entirely after the uſual manner at the ſecond; and that refracted in the unuſual manner in the firſt, is entirely refracted after the like manner in the ſecond: So that each emerges out of the ſecond Surface, parallel to the firſt incident Ray.

Again, if two pieces of this *Cryſtal* be plac'd over each other, ſo as the Surfaces of the one be parallel to the correſponding ones of the other; the Rays refracted in the uſual manner in the firſt Surface of the firſt, are refracted after the uſual manner in all the other Surfaces: And the ſame Uniformity appears in the Rays refracted after the unuſual manner; and this in any Inclination of the Surfaces; provided their Planes of perpendicular Refraction be parallel.

From theſe Phænomena, Sir *I. Newton* gathers, That there is an original Difference in the Rays of Light; by means whereof ſome are, here, conſtantly refracted after the uſual manner; and others in the unuſual manner. See RAY, and LIGHT.

Were not the difference original, and did it ariſe from any new Modifications impreſs'd on the Rays at their firſt Refraction, it would be alter'd by new Modifications in the three following ones; whereas, in fact, it ſuffers no Alteration at all.

Again, he hence takes occaſion to ſuſpect, that the Rays of Light have ſeveral Sides, endu'd with ſeveral original Properties: For, it appears from the Circumſtances, that there are not two ſorts of Rays differing in their Nature from each other, one conſtantly, and in all Poſitions, refracted in the uſual, and the other in the unuſual manner; the difference in the Experiment mention'd, being only in the Poſitions of the Sides of the Rays, to the Planes of perpendicular Refraction. For one and the ſame Ray is refracted ſometimes after the uſual, and ſometimes after the unuſual manner, according to the Poſition of its Sides to the *Cryſtal*: the Refraction being alike in both, when the Sides of the Rays are poſited the ſame way to both, but different when different.

Every Ray, therefore, may be conſider'd as having four Sides, or Quarters; two of which, oppoſite to each other, diſpoſe the Ray to be refracted after the unuſual manner; and the other two in the uſual. Theſe Diſpoſitions, being in the Rays before their Incidence on the ſecond, third, and fourth Surfaces; and ſuffering no Alterations, for what appears, in their paſſage thro' 'em; muſt be original and connate. See RAY, and LIGHT; ſee alſo REFRACTION.

CRYSTALLI, among Phyſicians, are Puſtules diſpers'd all over the Body; white, and of the bigneſs of a Lupine.

CRYSTALLINE *Humour*, is a thick, compact Humour of the Eye, in manner of a flattiſh convex Lens, ſituate in the middle of the Eye; ſerving to make that Refraction of the Rays of Light, neceſſary to have 'em meet in the *Retina*, and form an Image thereon, whereby Viſion may be perform'd. See EYE, HUMOUR, REFRACTION, VISION, RETINA, *&c.*

'Tis the Configuration of the *Cryſtalline* that occaſions Perſons to be either *Myopes*, or *Presbytæ*, *i. e.* to be either long or ſhort-ſighted. See MYOPES, and PRESBYTÆ.

The *Cryſtalline* being of two Conſiſtences; outwardly, like a Gelly; but toward the Centre as hard as Salt: Hence, ſome Authors think that its Figure may be varied; which Variation they ſuppoſe to be effected by the *Ligamentum Ciliare*. Hence Dr. *Grew*, and others, aſcribe to the Ciliary Ligament a Power of making the *Cryſtalline* more convex, as well as of moving it to or from the *Retina*: Accordingly, by the Laws of Opticks, ſomething of this Kind is abſolutely neceſſary to diſtinct Viſion: For, as the Rays from diſtant Objects diverge leſs than thoſe from nigh ones; either the *Cryſtalline Humour* muſt be capable of being made more convex, or more flat; or elſe there muſt be an Elongation of the Eye, or of the Diſtance between that and the *Retina*. See *Ligamentum* CILIARE, and SIGHT.

The *Cryſtalline Humour*, when dried, appears to conſiſt of a vaſt Number of thin, ſpherical *Laminæ*, or Scales, lying over one another: *Leewenhoeck* reckons there may be 2000 of 'em in one *Cryſtalline*; each of theſe, he ſays, he has diſcover'd to conſiſt of a ſingle Fibre, or fine Thread wound up in a ſtupendous manner, this way and that; ſo as to run ſeveral Courſes, and meet in as many Centres: and yet not interfere nor croſs in any Place. *Philoſ. Tranſact.* N° 165, and 293.

CRYSTALLINE *Heavens*, in the old Aſtronomy, two Orbs imagined between the *Primum Mobile* and the Firmament, in the *Ptolemaic* Syſtem, where the Heavens were ſuppos'd ſolid, and only ſuſceptible of a ſingle Motion. See HEAVEN.

King *Alphonſus* of *Arragon* is ſaid to have introduc'd the *Cryſtallines*, to explain what they call'd the *Motion of Trepidation*, or *Titubation*. See *Ptolemaic* SYSTEM.

The firſt *Cryſtalline*, according to *Regiomontanus*, &c. ſerves to account for the ſlow Motion of the fix'd Stars; which makes 'em advance a Degree in 70 Years, according to the Order of the Signs, *viz.* to the Eaſt; which occaſions the Preceſſion of the Equinox. See PRECESSION.

The ſecond ſerves to account for the Motion of Libration, or Trepidation; whereby the Celeſtial Sphere is carried from one Pole towards another, occaſioning a difference in the Sun's greateſt Declination. See TREPIDATION.

But the Moderns account for theſe Motions, in a much more natural and eaſy manner. See LIBRATION, *&c.*

CRYSTALLIZATION, in Chymiſtry, a Kind of Congelation, befalling Salts, both *eſſential*, *fix'd*, and *volatile*; when, being ſet free from the greateſt Part of their Humidity, they are left to harden, dry, and ſhoot into *Cryſtals*. See SALT.

The ordinary Method of *Cryſtallization*, is perform'd by diſſolving the ſaline Body in Water, filtering it, and letting it evaporate, till a Film appears at the top; and laſtly, letting it ſtand to ſhoot. See DISSOLUTION, and EVAPORATION.

This Shooting is accounted for, on Sir *I. Newton*'s Principles, from that attractive Force which is in all Bodies, and particularly in Salt, by reaſon of its Solidity; whereby, when the Menſtruum or Fluid in which ſuch Particles float, is ſated enough, or evaporated, (which brings it to the ſame) ſo that the ſaline Particles are within each other's attractive Powers, and can draw one another more than they are drawn by the Fluid, they will run into *Cryſtals*. See ATTRACTION.

This is peculiar to Salts, that let them be ever ſo much divided, and reduc'd into minute Particles; yet, when they are form'd into *Cryſtals*, they each of them reaſſume their proper Shapes: ſo that one might as eaſily diveſt and deprive 'em of their Saltneſs, as their Figure.

This being an immutable and perpetual Law, by knowing the Figure of the *Cryſtals*, we may underſtand what the Texture of the Particles ought to be, which can form thoſe *Cryſtals*: and, on the other hand, by knowing the Texture of the Particles, may be determin'd the Figures of the *Cryſtals*.

For, ſince the Figures of the moſt ſimple Parts remain always the ſame, it is evident that the Figures they run into, when compounded and united, muſt be uniform, and conſtant: and ſince the Force of Attraction may be ſtronger on one ſide of a Particle than on another; there will conſtantly be a greater Accretion of Salts upon thoſe Sides which attract more ſtrongly: From which it may eaſily be

demonſtrated, that the Figure of the leaſt Particles, is entirely different from that which appears in the *Cryſtal*. See PARTICLE.

CRYSTALOIDES, the *Cryſtalline* Coat of the Eye; a Coat, or Tunic, immediately encompaſſing, and containing the *Cryſtalline* Humour; and ſuppoſed to ſerve, by conſtringing or dilating that Humour, to vary the Place of its Focus. See CRYSTALLINE.

Anatomiſts are divided about the Reality of ſuch Tunic, which is alſo, from its fine Texture, called *Aranea Tunica*, or *Arachnoides*. See ARACHNOIDES.

CRYSTALOMANCY, the Art of divining, or foretelling future Events, by means of a Mirror; wherein the Things requir'd are repreſented. See MIRROR.

It is alſo call'd *Catoptromancy*: The firſt from χρύσαλλος, *congeal'd Water*, or *Cryſtal*; and the ſecond from κατόπτρον, *Mirror*, and μαντεία, *Divination*.

CUBATURE, or CUBATION, the *Cubing* of a Solid; or the meaſuring of the Space comprehended in a Solid; as in a *Cone*, *Pyramid*, *Cylinder*, &c. See CONE, PYRAMID, CYLINDER, &c.

The *Cubature* regards the Content of a Solid, as the Quadrature does the Superficies of a Figure; ſo that the *Cubature* of the Sphere turns on the ſame thing as the Quadrature of the Circle. See SOLIDITY, and QUADRATURE.

CUBE, in Geometry, a regular or ſolid Body, conſiſting of ſix ſquare and equal Faces, or Sides; and its Angles all right, and therefore equal. See SOLID, and REGULAR *Body*.

The *Cube* is alſo call'd *Hexaedron*, becauſe of its ſix Sides. The Word comes from the *Greek* κυβος, *Teſſara*, Die.

The *Cube* is ſuppos'd to be generated by the Motion of a ſquare Plane, along a Line equal to one of its Sides, and at right Angles thereto: whence it follows, that the Planes of all Sections parallel to the Baſe, are Squares equal thereto, and conſequently to one another.

To deſcribe a Rete, or Net, whence any given Cube *may be conſtructed, or wherewith it may be cover'd.* On the right Line AB, (Tab. *Geometry*, Fig. 49.) ſet off the Side of the *Cube*, four times; on A erect a Perpendicular, AC, equal to the Side of the *Cube* AI, and compleat the Parallelogram ACBD. With the Interval of the Side of the *Cube*, in the Line CD; determine the Points K, M and O: Laſtly, draw the right Lines IK, LM, NO, and BD; produce IK and LM, each way to E and F, and to G and H; till EL=IK=KF, and GL=LM=MH, and draw the right Lines EG, FH.

To determine the Surface and Solidity of a Cube: As the Surface of a *Cube* conſiſts of ſix equal Squares, a Side multiply'd by it ſelf, and the Product by ſix, will give the Superficies; and the ſame Product, again, multiply'd by the Side, the Solidity. See SURFACE, and SOLIDITY.

Coroll. Hence, If the Side of a *Cube* be 10, the Solidity will be 1000; if that be 12, this will be 1728: Wherefore, the Geometrical Perch being 10 Foot, and the Geometrical Foot 10 Digits, &c. the *Cubic* Perch is 1000 *Cubic* Feet, and a *Cubic* Foot 1000 *Cubic* Digits, &c.

Hence, alſo, *Cubes* are in a triplicate Ratio of their Sides; and are equal, if their Sides be ſo.

CUBE, or CUBIC *Number*, in Arithmetick, is a Number ariſing from the Multiplication of a ſquare Number by its Root. See NUMBER.

Thus, if the ſquare Number 4, be multiplied by its Root, 2, the *Factum* 8 is a *Cube* or *Cubic Number*; and the Number 2, with reſpect thereto, a *Cube*-Root. See ROOT.

Hence, ſince, as Unity is to the Root, ſo is the Root to the Square; and as Unity is to the Root, ſo is the Square to the *Cube*; the Root will, alſo, be to the Square as the Square to the *Cube*: that is, Unity, the Root, the Square, and the *Cube*, are in continual Proportion; and the *Cube*-Root is the firſt of two Numbers that are Mean Proportionals between Unity and the *Cube*. See POWER.

For the Compoſition of CUBIC *Numbers.* Every *Cubic* Number of a Binominal Root, is compos'd of the *Cubic* Numbers of the two Parts, of the *Factum* of thrice the Square of the firſt Part into the ſecond, and of the *Factum* of thrice the Square of the ſecond Part into the firſt.

Demonſt. For a *Cubic* Number is produced by multiplying the Square by the Root: But the Square of a Binomial Root, is compos'd of the Squares of the Parts, and the double *Factum* of one Part into the other. See SQUARE.

Wherefore, the *Cube* is compos'd of the *Cube* of the firſt Part, of the triple *Factum* of the Square of the firſt Part into the ſecond, and of the triple *Factum* of the Square of the ſecond Part into the firſt, and of the *Cube* of the ſecond Part. See ROOT.

An ocular Demonſtration of this we have in the following Example, where Multiplication alone is uſed. Suppoſe, *v. g.* the Root 24, or 20+4. Here,

$$24^2 = 20^2 + 2.4.20 + 4^2$$
$$\underline{\qquad\qquad 20 + 4^2}$$
$$+4.20^2 + 2.4^2.20 + 4^3$$
$$20^3 + 2.4.20^2 + 4^2.20$$
$$\underline{\qquad\qquad\qquad\qquad}$$
$$24^3 = 20^3 + 3.20^2.4 + 3.4^2.20 + 4^3$$
$$20^3 = 8000$$
$$3.20^2.4 = 4800$$
$$3.4^2.20 = 960$$
$$4^3 = 64$$
$$\underline{\qquad\qquad}$$
$$24^3 = 13824$$

Coroll. Hence, as the Part on the right Hand is placed among Units, and that on the left among Tens; the *Cubic* Number of the right hand Part muſt be put in the right Place; the *Factum* of its triple Square into the left, in the ſecond Place; and the *Factum* of the triple Square of the left into the right, in the third: laſtly, the *Cube* of the left-hand Part falls in the fourth Place.

If the Root be a Multinomial, two or more Characters on the right muſt be eſteem'd as one; that it may have the form of a Binomial.

'Tis obvious, that any *Cube* is compos'd of the *Cubes* of the ſeveral Parts of the Root, and of the *Factums* of the triple Square of any of the left-hand Characters into the next on the right; and alſo of the *Factums* of the triple Square of the right-hand Characters into all the left. Suppoſe, *v. g.* the Root 243: Take 240 for one Part of the Root, 3 will be the other Part; Conſequently,

$$240^3 = 13824000$$
$$3.240^2.3 = 518400$$
$$3.240.3^2 = 6480$$
$$3^3 = 27.$$
$$\underline{\qquad\qquad}$$
$$243^3 = 14348907$$

The Places of the ſeveral *Factums*, are determin'd from what was obſerv'd above: for regard muſt here, too, be had to the Ciphers to be added to the Numbers multiplied by each other, if they be placed alone.

This Compoſition of *Cubic Numbers* once well conceiv'd, the Extraction of *Cubic* Roots will be eaſy. See EXTRACTION.

CUBE *Root*, or CUBIC *Root*, the Origin of a *Cube* Number; or a Number by whoſe Multiplication into it ſelf, and again into the Product, any given Number is form'd. See CUBE *Number*.

The *Extraction of the Cube Root*, is the ſame thing as the finding any Number, *v. g.* 2; by whoſe Multiplication into it ſelf three times, a given Number, *v. g.* 8, is produced: The Proceſs whereof, ſee under the Article EXTRACTION.

CUBEBS, in Pharmacy, a Fruit brought from the Iſland of *Java*, in Grains reſembling Pepper, both in form and ſize; whence ſome call it *Wild Pepper*.

'Tis ſaid, the Natives of the Place boil it ere they allow it to be exported, to prevent its being ſown in other Countries.

Cubebs fortify the Stomach, Brain, and other *Viſcera*; and enter as an Ingredient in ſeveral Officinal Compoſitions.

CUBIC *Equation*, is an Equation wherein the unknown Quantity is of three Dimenſions, as $x^3 = a^3 - b^3$, &c. See EQUATION.

For the Conſtruction of Cubic Equations, ſee CONSTRUCTION. *For their Reſolution*, ſee RESOLUTION. *For its Root*, ſee ROOT.

CUBICAL *Parabolois*, a Term us'd by ſome Writers for a Parabola of the higher Kind, *v. g.* where $a^2 x = y^3$, &c. See CURVE; ſee alſo PARABOLA.

CUBIT, a long Meaſure, us'd by the Antients, eſpecially the *Hebrews*; taken from the ordinary length of a Man's Arm, from the Elbow to the Tip of the Hand. See MEASURE, ARM, and HAND.

In the Scripture, we find *Cubits* of two lengths, the one equal, according to Dr. *Arbuthnot*, to 1 Foot, 9 Inches, $\frac{888}{1000}$ of an Inch, our Meaſure; being the fourth Part of a Fathom, double the Span, and triple the Palm: The other equal to $1.\frac{824}{1000}$ Foot, or the four hundredth Part of a Stadium.

The *Romans*, too, had a *Cubit*, equal to 1 Foot, 5 Inches, $\frac{406}{1000}$ of an Inch.

F. *Merſenne* makes the *Hebrew Cubit* 1 Foot, 4 Digits, and 5 Lines, with regard to the Foot of the Capitol. According to *Hero*, the Geometrical *Cubit* is 24 Digits; and according to *Vitruvius*, the Foot is $\frac{2}{3}$ of the *Roman Cubit*, *i. e.* 16 Digits. See FOOT, DIGIT, &c.

CUBITÆUS *Externus*, or *Ulnaris*, in Anatomy, the firſt of the Extenſor Muſcles of the Fingers.

It has its Name, as being placed along the *Cubitus*, externally. It riſes from the external Extuberance of the *Humerus*, and paſſing its Tendon under the *Ligamentum Annulare*, is inſerted into the fourth Bone of the *Metacarpus*, that ſuſtains the little Finger.

CUBITÆUS *Internus*, the firſt of the *Flexores*, placed along the *Cubitus*, withinſide the Arm. It riſes from the internal Extuberance of the *Humerus*, and part of the *Ulna*; upon which it runs all along till paſſes under the *Ligamentum Annulare*, and is inſerted by a ſtrong and ſhort Tendon into the fourth of the firſt Order of the *Carpus*.

CUBITUS, in Anatomy, a Bone of the Arm, reaching from the Elbow to the Wriſt; otherwiſe called *Ulna*, or the *greater Focile*. See ULNA.

Some uſe the Word for all that Part of the Arm between the Elbow and the Wriſt; including the *Ulna*, or *Cubitus*, properly ſo call'd, and the *Radius*. See ARM, and RADIUS; ſee alſo FOCIL.

CUBO-CUBO-CUBUS. See CUBUS-CUBI.

CUBO-CUBUS, the Term whereby *Diophantus*, *Vieta*, &c. diſtinguiſh the ſixth Power; which the *Arabs* call *Quadratum-cubi*. See POWER.

CUBOIDES, or *Os* CUBIFORME, in Anatomy, the ſeventh Bone of the Foot; ſo called, from its being in form of a *Cube*, or Die. See FOOT.

Some alſo call it *Multiforme*: It is ſituate in the fore-Part of the *Calcaneum*, in the ſame Rank with the *Oſſa Cuneiformia*.

Behind, it is articulated to the *Os Calcis*; before, to the two outer Bones of the *Metatarſus*; and within, it is join'd to the third *Os Cuneiforme*. See BONE.

CUBUS-CUBI, a Name whereby the *Arab* Writers, and thoſe who follow 'em, denominate the ninth Power, or a Number multiplied eight times by it ſelf; which *Diophantes*, and after him *Vieta*, *Oughtred*, &c. call *Cubo-cubo-cubus*. See POWER.

CUCKING-STOOL, or COKESTOOL, antiently call'd *Tumbrel*, and *Trebuchet*; an Engine for the Puniſhment of Scolds and unquiet Women, by ducking them in the Water.

Kitchen ſays, 'Every one having View of Frank-Pledge, 'ought to have a Pillory and a Tumbrel.' This Machine was much in uſe, even among our *Saxon* Anceſtors, who call'd it *Scealding-ſtole*.

This Puniſhment was antiently inflicted on Brewers and Bakers, tranſgreſſing the Law; who were thereupon, in ſuch a Stool or Chair, to be ducked *in Stercore*, ſome muddy or ſtinking Pond. This was antiently written *Gagingſtole*: In *Domeſday* it is called *Cathedra Stercoris*.

CUCULLARIS, in Anatomy, a Muſcle, ſo called from the reſemblance it is ſuppos'd to bear to a Monk's Cowl; and *Trapezius*, from its reſemblance to a geometrical Figure, call'd a *Trapezium*. See TRAPEZIUS.

The Fibres of this Muſcle have various Originations and Actions: whence Dr. *Drake* thinks it may be more properly call'd three, than one Muſcle.

The upper Order of Fibres or Muſcles, ſprings from the *Os Occipitis*; the ſecond from the Spine of the *Vertebræ* of the Neck; and the third from the Spines of the eight upper *Vertebræ* of the Thorax, or Back: and are inſerted into the Spine, *Acromium*, and Baſis of the *Scapula*, and part of the *Claviculæ*.

From the different Diſpoſitions of theſe Fibres, the *Scapula* is drawn different ways; the firſt pulling obliquely upwards, the laſt obliquely downwards, and the middle backwards: When they act all three together, they are ſaid to draw backwards only; *i. e.* the two Extremes antagonizing, the middle one alone is at liberty to act.

CUCULLATE *Flowers*, among Botaniſts, are ſuch as reſemble a *Cucullus*, or Monk's Hood, or Helmet. See FLOWER.

CUCULLUS, was antiently a kind of Traveller's Cap; call'd alſo *Cowl*, *Goul*, or *Gula*: whence the Name paſs'd to the Monks, among whom it ſignify'd their Frock, and Cap. See COWL.

The Word aroſe hence, that antiently they wore their Clothes turn'd up at the Neck and Sleeves, with a kind of Skin call'd *Gulæ*, or *Gules*, *Caules*, and *Cuſcules*; from *Cuſculium*, Grain of Scarlet.

CUCUPHA, an antient Form of Medicine; being a Cap, or Cover for the Head, with Cephalic Spices quilted therein; wore in many nervous Diſtempers, and particularly ſuch as more immediately affect the Head: as againſt Catarrhs, Defluxions, &c. It is now almoſt out of uſe.

CUCURBITACEOUS *Plants*, a Kind of Plants, ſo called from their reſemblance to the Gourd, call'd by the Latins *Cucurbita*, which is the Head of this Family. See PLANT.

Plants of the *Cucurbitaceous* Kind, ſend out their Branches every way; which are ſoft, and generally ſet with *Urillæ*, by means whereof they cling to the Bodies that are near 'em.

Their Flowers are either Sterile, or Fertile: The laſt knit, and yield fleſhy Fruits of various Figures; containing within 'em ſeveral flat Seed placed in three or four Lodges, or even a greater Number.

Theſe Seeds have uſually a white ſweetiſh Kernel; the greateſt part of 'em being of thoſe call'd *Frigidæ Majores*, or greater Cold Seeds.

The Pumpion, Muſhroom, Melon, &c. are of the *Cucurbitaceous* Kind.

CUCURBIT, in Chymiſtry, an Earthen, or Glaſs Veſſel, call'd alſo *Body*; wherein are put the Matters to be diſtill'd. See DISTILLATION.

It is ſometimes alſo made of Tin, and ſometimes of Braſs, tinn'd. When a Diſtillation is to be made, they fit on to it a glaſs Head, with an Aperture, and a Neck proportional. See RETORT.

CUCURBITULA, in Chirurgery, a Cupping-Glaſs, or Inſtrument uſed in the Operation of Cupping. See CUPPING-*Glaſs*.

CUDDY, in a Firſt Rate Man of War, is a Place lying between the Captain's and the Lieutenant's Cabins, and the Poop; and divided into Partitions, for the Maſter and Secretary's Officers.

CUE, an Item, or Innuendo, given to the Actors on the Stage, what, or when to ſpeak.

CUERPO. *To walk in Cuerpo*, is a *Spaniſh* Phraſe, for going without a Cloke; or without all the Formalities of a full Dreſs.

CUI *ante Divortium*, a Writ, which a Woman divorc'd from her Husband, hath, to recover Lands or Tenements from him to whom her Husband did alienate them during Marriage; becauſe, during the Marriage, ſhe could not gainſay it.

CUI *in Vita*, is a Writ of Entry, which a Widow hath againſt him to whom her Husband alienated her Lands or Tenements in his Life-time; ſpecifying, that, during his Life, ſhe could not withſtand it.

CUIRASSE, a piece of defenſive Armour, made of an Iron Plate well hammer'd; ſerving to cover the Body, from the Neck to the Girdle, both before and behind.

Hence, *Cuiraſſiers*, the Cavaliers arm'd with *Cuiraſſes*.

The *Cuiraſſe* was not brought into uſe till about the Year 1300. The *French* have ſtill a Regiment of *Cuiraſſiers*; and a good Part of the *German* Cavalry, are *cuiraſs'd*.

In the *Roman* Calendar, we find the Name of S. *Dominic the cuiraſs'd*; a Title given a Saint of the XIth Century, from his conſtant wearing of an Iron *Cuiraſſe*, by way of Penance.

Some derive the Word, by Corruption, from *Cucuraſſe*; becauſe it covers the Body: Others from the French *Cuir*, or the Latin *Corium*, Leather; whence *Coriaceus*: by reaſon defenſive Arms were originally made of Leather.

CULINARY, an Epithet frequently added to Fire; determining it to be a common Fire, excited in Wood, Coals, or other ordinary Fuel: In contradiſtinction to Solar Fire, or that rais'd by the Action of a Burning-Glaſs; to Central Fire; to Animal Fire, &c. See FIRE.

Culinary Fire, according to *Boerhaave*, conſiſts of a Portion of pure Elementary, or Solar Fire, attracted by the oily, or ſulphureous Parts of the Fuel, with ſuch Velocity, as that it moves the ſame, agitates and whirls 'em violently about, and by degrees breaks and attenuates them; renders 'em volatile, and diſperſes 'em in Air. See FUEL.

The Effect of Air upon this Fire, is to make, as it were, a Vault around it, and by that means, reſtrain and keep it in, determine it upon the Sulphur, and thus prevent its too haſty Diſſipation. See AIR.

The Word is form'd from the Latin *Culina*, Kitchen; this being the chief place of ſuch Fires.

CUL *de Lamp*, a *French* Term, properly ſignifying the bottom of a Lamp; uſed in Architecture for ſeveral Decorations, both of Maſonry and Joinery, found in Vaults and Ceilings, to finiſh the bottom of Works, and wreath'd ſomewhat in manner of a *Teſtudo*; particularly a kind of Pendentive in *Gothic* Vaults.

CUL *de Four*, a ſort of low, ſpherical Vault, Oven-like. See VAULT.

Cul de Four of a Niche, the arch'd Roof of a Niche, on a circular Plan. See NICHE.

CULLIAGE, or CULLAGE, a Right uſurp'd by the antient Lords, and eſtabliſh'd by a fooliſh Cuſtom, which gave 'em the firſt Night with their Vaſſals Brides.

'Tis ſaid this Right was eſtabliſh'd by *Ewen* King of *Scotland*; and finally aboliſh'd by *Malcolm* III. a Compenſation being ſettled in its ſtead; as occaſioning frequent Revolts of the Vaſſals againſt their Lords.

The Word is form'd from the French *Cul*, Breech.

CULMIFEROUS, in Botany, a Term applied to ſuch Plants as have a ſmooth-jointed Stalk, uſually hollow; the Stalk wrap'd about, at each Joint, with ſingle, narrow, ſharp-pointed Leaves; and the Seeds contain'd in chaffy Huſks. See CULMUS, and PLANT.

Culmiferous Plants are divided into two Kinds; thoſe with a *greater*, and thoſe with a *ſmaller* Seed.

Thoſe with a larger Seed are called *Frumentaceous*, or *Cereales*; and are again divided into *Spicatæ*, as Wheat, Rye, Spelt, Barley, Rice, Peaſe, &c. and *Paniculatæ* or *Jubatæ*, as Oats, Scordium, Milium, and Maiſe. See FRUMENTACEOUS, &c.

CULMINATION, in Aſtronomy, the Tranſit of a Star or Planet over the Meridian; or that Point of its Orbit wherein it is at its greateſt Altitude. See STAR, ALTITUDE, ORBIT, &c.

Hence, a Star is ſaid to *culminate*, when it paſſes the Meridian. See MERIDIAN, and MID-HAVEN.

To find the Culmination *of a Star, or the Time wherein it paſſes the Meridian.* On a Meridian-Line AB, (Tab. *Aſtronomy*, Fig. 48) ſtretch a Thread, DC, perpendicularly; and from D to E another, DE, cutting the Meridian obliquely, at any Angle: The triangular Thread, therefore, DCE, will cut the Plane of the Horizon in the Meridian-Line, at right Angles; and conſequently will be in the Plane of the Meridian.

The Eye, therefore, being ſo placed as that the Thread DE may cover the Thread DC; wait till the Star be biſſected by the Triangle DCE; for then the Eye and the Star will, together with the Triangle DCE, be in the ſame Plane: Conſequently the Star is in the Meridian. See MERIDIAN.

To find the Culmination *of a Star by the Globe.* See GLOBE.

To find the Time when a Star culminates, *from a given right Aſcenſion of the Meridian, the Sun, and the Star.* Subtract the right Aſcenſion of the Sun from that of the Star; if that of the latter be the leſs, add 360° to it, and ſubtract the former from the Sum; convert the Remainder into Solar Time: (ſee TIME.) Thus will you have the Time paſs'd ſince the Star's *Culmination*.

Hence, alſo, we have the Hour of the Night. See HOUR.

CULMUS, is properly the Stem or Stalk of Corn, or Graſs; which in other Plants is call'd *Caulis*. See STEM, and STALK.

Hence, *Culmiferous Plants*, are ſuch as have a ſmooth-jointed Stalk, and uſually hollow; and at each Joint the Stalk is wrap'd about with ſingle, narrow, long, ſharp-pointed Leaves, and their Seeds are contain'd in chaffy Huſks. See CULMIFEROUS.

CUL-PRIT, a Term us'd by the Clerk of the Arraignments, when a Perſon is indicted for a criminal Matter. See INDICTMENT.

After the Indictment is read in Court (which is the Crown's Charge) againſt the Priſoner at the Bar; he is aſk'd if Guilty, or Not Guilty?

If he anſwers *Not Guilty*, there is next a Replication from the Crown, by continuing the Charge of Guilt upon him; which is expreſs'd by pronouncing the Word *Cul-prit*; *Cul* being an Abbreviation of the *Latin* Word *Culpabilis*, Guilty, and *prit* (now *pret*) the old *French* Word for *ready*.

From theſe two Aſſertions, therefore, of the Clerk of the Arraignments, the Priſoner is deem'd guilty of the Crime charg'd on him; and that the Crown is ready to prove it upon him.

That this is the true Explanation of the Term, is evident from the Form of the Entry of the Record of the Trial, when drawn at large.

CULTELLATION, a Term ſome Authors uſe for the meaſuring of Heights, and Diſtances, by Piecemeal; that is, by Inſtruments which give us ſuch Heights and Diſtances by Parts, and not all at one Operation. See MEASURING, ALTIMETRY, DISTANCE, &c.

CULVERIN, a Piece of Ordnance or Artillery, ſerving to carry a great diſtance. See ORDNANCE.

Of theſe there are three Kinds, *viz.* the *Culverin extraordinary*, the *ordinary*, and the *leaſt ſiz'd*.

The *Culverin extraordinary* has $5\frac{1}{2}$ Inches bore; its length 32 Calibers, or 13 Foot; weighs 4800 Pound; its Load above 12 Pound; carries a Shot 5 Inches $\frac{1}{4}$ Diameter, weighing 20 Pound weight.

The *Ordinary Culverin* is 12 Foot long; carries a Ball of 17 Pound 5 Ounces; Caliber $5\frac{1}{2}$ Inches; its weight 4500 Pound.

The *Culverin* of the *leaſt ſize*, has its Diameter 5 Inches; is 12 Foot long; weighing about 4000 Pounds; carries a Shot 3 Inches $\frac{3}{4}$ Diameter, weighing 14 Pounds 9 Ounces. See DEMI-*Culverin*.

Menage derives the Word from the Latin *Colubrina*; others from *Coluber*, Snake; either from the Length of the Piece, or the Ravages it makes.

CUMMIN, the Grain of a Plant of the ſame Name, much like that of Fennel; growing abundantly in the Iſle of *Malta*, where 'tis ſown and cultivated after the manner of Corn.

The *French* frequently call it *Anis aigre*, ſharp or ſour Anis.

'Tis us'd with Succeſs in the Vertigo, Wind-Colics, Tympanies, &c. 'Tis eſteem'd excellent to retrieve the Natural Heat in Horſes, Bulls, &c. The Pidgeons are exceedingly fond of it; whence ſome make uſe of it to people their Dove-houſes, incorporating it with an Earth naturally ſaline, or ſome other Earth that has imbib'd Urine.

This Seed, as well as the common Anis, yields, by Expreſſion, a kind of Oil, eſteem'd ſovereign in Rheumatiſms; provided it be us'd with Precaution, and in ſmall Quantities.

CUNETTE, in Fortification, a deep Trench, about three or four Fathom wide, ſunk along the middle of a dry Moat, to lade out the Water; or to make the Paſſage more difficult to the Enemy. See TRENCH.

CUNEUS, one of the Mechanical Powers; more uſually, by *Engliſh* Writers, call'd the *Wedge*. See WEDGE.

CUNEIFORME *Os*, in Anatomy. See SPHÆNOIDES.

CUNEIFORMIA *Oſſa*, the fourth, fifth, and ſixth Bones of the Foot; thus called from their wedge-like Shape, being large above, and narrow below.

They lie all three a-ſide of one another, and are of different Sizes; their upper Side convex, and their under hollow: by which means, the Muſcles and Tendons in the bottom of the Foot are not hurt in walking.

At one End they have each a *Sinus*, which receives the *Os Naviculare*; and at the other End are join'd each to one of the three inner Bones of the *Metatarſus*.

CUP, *Calyx*, a Veſſel ſo call'd, of various Forms and Uſes. See CHALICE.

In the *Ephem. German.* we have a Deſcription of a *Cup* made of a common Pepper-Corn, by *Oſwald Nerlinger*; which holds 1200 other Ivory *Cups*, each having its ſeveral Handle; all gilt on the Edges, with room for 400 more.

CUPS, among Herbaliſts, are thoſe ſhort Huſks in which Flowers grow; ſome being pointed into two, three, four, five, or ſix Leaves. See CALYX.

CUPOLA, in Architecture, a ſpherical Vault; or the round Top of the Dome of a Church, in form of a *Cup* inverted. See DOME.

Some call it a *Lanthorn*. See LANTHORN.

The Word is *Italian*, form'd of the barbarous Latin *Cuppala*; otherwiſe call'd *Thola*, and *Fornix*.

CUPPEL, CUPEL, or COUPEL, among Chymiſts, a Veſſel or Utenſil, uſed in the trying and purifying of Gold and Silver; call'd alſo *Teſt*. See COUPEL, TEST, PURIFYING, and REFINING; ſee alſo ESSAY.

CUPPING, an Operation in Chirurgery, for the Diſcharge of Blood and other Humours by the Skin.

It is perform'd by collecting the Humours into a Tumor under the Cutis; and letting 'em out thence, by Scarification; *i. e.* by ſeveral Inciſions made with a Scarificator. See SCARIFICATION.

The Inſtruments uſed herein, are the *Cucurbitulæ*, or *Cupping-Glaſſes*, and *Scarificator*: The Deſcription of each whereof ſee under their proper Head.

Cupping is perform'd either *with* or *without* Fire.

Cupping with Fire, is the more uſual Proceſs; and is commonly, among us, thus effected: The Air in the Cavity of the *Cucurbitula* is heated, and ſo rarefy'd, by the Application of the Flame of a Lamp, or the like; and the Veſſel immediately apply'd to the Part to be *cupp'd*.

Others, eſpecially the *French*, proceed thus: A piece of Card is cut round, and a Lamp, or four little Wax Candles affix'd to it: This is placed after the manner of a Candleſtick to the Part whereon the Operation is to be perform'd, and cover'd with a *Cucurbitula*, or Cupping-Glaſs.

After the included Air has been well heated and rarefy'd with the Flames of the Candles, it is clap'd cloſe to the Skin; which it has no ſooner touch'd but the Candles are extinguiſh'd, and the Tumor rais'd.

In *Cupping without Fire*, inſtead of rarefying the Air included in the *Cupping*-Glaſs by heat; 'tis done by a Syringe applied to the Neck of the *Cupping*-Glaſs, fitted with a braſs Collar, Cap, and Valve: The *Cupping*-Glaſs being applied to the Skin, and the Syringe wrought, part of the Air is pump'd out of the *Cucurbitula*; and thus the Tumor riſes, as in the former Caſe. See SYRINGE.

The Reaſon of the Phænomenon is this: The Air included in the *Cupping*-Glaſs being rarefied, a great Part of the Load which before preſs'd it and kept it down, and which ſtill continues to preſs the reſt of the Body, is taken off; upon which the Air, known to be contain'd in the Veſſels of the Body, and mix'd with the Blood and Juices, expands it ſelf; and raiſes a Tumor, carrying with it the Fluids wherewith it is mingled.

The Operation is perform'd on the Breaſts and Thighs, to ſtop or promote the Menſes; on the Navel for the Cholick.

Cupping is alſo us'd for Defluxions on the Eyes, for venomous Wounds, and Buboes; on the Head, for Apoplexies, &c.

CUPPING-GLASS, *Cucurbitula*, in Chirurgery, a Glaſs Veſſel, applied to certain Parts of the Body, to draw the Blood and other Humours from within outwards; to be afterwards diſcharg'd, thro' ſeveral Inciſions made with a Scarificator. See CUPPING.

The Veſſel is of various Dimenſions: Sometimes, inſtead of Glaſs, 'tis made of Wood, Horn, Braſs, Silver, &c.

When the *Cupping* is to be perform'd with Fire; the Veſſel is heated with Candles, Tow, a Torch, Lamp, or the like; and in this State applied cloſe to the Part: The Air

in its Cavity being by this means rarefy'd, and brought near to the Condition of a Vacuum; that Part of the Body cover'd by it being leſs preſs'd by the Air than the reſt, its Juices are forc'd up with the Cutis, and raiſe a Bunch in the Cavity of the Veſſel: to which the Scarificator being apply'd, and ten or twelve Inciſions made at the ſame time, a plentiful Evacuation is effected.

To Cup without Fire, the Veſſel is fitted with a braſs Neck; to which a Syringe being apply'd, a Rarefaction is produc'd, by working it to and fro: (ſee SYRINGE.) The reſt as in the former Caſe.

CURATE, is properly a Parſon, or Vicar of a Pariſh, who hath the Charge or *Cure* of the Pariſhioners Souls. See CURE, PARSON, &c.

Curate is now more generally uſed for a Deputy or Subſtitute; or one who officiates in the Place of the Incumbent, or Beneficiary.

CURATIVE *Indication*, among Phyſicians, a Sign which has relation to the Diſeaſe to be cured. See SYMPTOM, and INDICATION.

CURATOR, in the Civil Law, a *Truſtee*, or Perſon elected or nominated to take care of the Affairs and Intereſts of a Perſon emancipated, or interdicted. See EMANCIPATION.

In Countries where the *Roman* Law prevails, between the Age of 14 and 24 Years, Minors have *Curators* aſſign'd 'em: Till 14, they have Tutors. See MINOR, and TUTOR.

CURATOR *of an Academy*, in the United Provinces, is an elective Office, to which belongs the Direction of the Affairs of the Academy; as, the Adminiſtration of the Revenues, the Inſpection of the Profeſſors, &c. The *Curators* are choſe by the States of each Province: The Academy of *Leyden* has three; the Bourgemaiſters of the City have a fourth.

CURDLING, the *coagulating*, or fixing of any fluid Body; particularly Milk. See COAGULATION.

Pauſanias ſays, *Ariſtæus* Son of *Apollo*, and *Cyrene* Daughter of the River *Peneus*, were the firſt who found the Secret of *curdling* Milk. See MILK.

At *Florence*, they *curdle* their Milk for the making of Cheeſe with Artichoke Flowers; in lieu of the Rennet us'd for the ſame Purpoſe among us. See CHEESE.

The *Biſaltes*, a People of *Macedonia*, *Rochfort* obſerves, live wholly of *curdled* Milk, *i. e.* of Curds. He adds, that Curds is the whole Food of the People of the upper *Auvergne* in *France*, and Whey their only drink.

Women newly deliver'd are ſubject to have their Milk *curdled*, or converted into little *Grumæ* in their Breaſts, which occaſions violent Pains, with a ſhivering in the back.

'Tis occaſion'd by the want of being ſuck'd, whence the Method of remedying and preventing it is apparent.

CURE *of Souls*, a Benefice, the Incumbent whereof has the Charge and Guidance of the Souls of the People within a certain extent of Ground, call'd a *Pariſh*. See BENEFICE, PARISH, &c.

Such is a Vicar, a Rector, &c. in contradiſtinction to a Prebend, a Dean, a Chantor, &c. See VICARAGE, &c.

CURE, in Falconry, a Remedy which the Falconers give their Birds, in form of little Balls or Pellets, of Hemp, Cotton, or Feathers, to imbibe and dry up their Phlegm.

The beſt *Cure* is that made of Feathers, or of little Bones of Birds, bruis'd; or of Hares, or Rabbets Feet. That of Cotton burns and conſumes the Lungs; eſpecially when given without waſhing.

From the Condition of the *Cure*, when evacuated, they Judge of the State of the Bird. See CASTING.

CURETES, in Antiquity, a ſort of People of the Iſle of *Crete*; call'd alſo *Corybantes*. See CORYBANTES.

The *Curetes* are ſaid to have been originally of Mount *Ida*, in *Phrygia*; for which reaſon they were alſo call'd *Idæi Dactyli*. See DACTYLI.

The Name *Curetes*, according to *Strabo*, was given 'em by reaſon of their cutting off the Hair before, to prevent the Enemy's taking hold thereof: the Word being *Greek*, κουρῆτες, of κουρά, the Act of cutting off the Hair; of κείρω, *tondo*. Others derive it from κουροτροφία, the feeding or educating of a Child; by reaſon they are ſaid to have educated *Jupiter*.

Ovid ſays, they aroſe from a huge Shower of Rain: *Lucian* and *Diodorus Siculus* repreſent them as very expert in caſting of Darts; tho other Authors give 'em no Weapons but Bucklers and Pikes: But all agree in furniſhing 'em with Tabours, and Caſtanetta's; and relate that they uſed to dance much to the Noiſe and claſhing thereof.

Some Authors, however, give a different Account of the *Curetes*: According to *Pezron*, and others, the *Curetes* were, in the Times of *Saturn*, &c. and in the Countries of *Crete* and *Phrygia*, what the Druids and Bards were afterwards among the *Gauls*, &c. *i. e.* they were Prieſts, and Sacrificers, who took care of what related to Religion, and the Worſhip of the Gods. See DRUIDS.

Hence, as in thoſe Days it was ſuppos'd there was no Communication with the Gods but by Divinations and Auguries, and the Operations of Magick; the *Curetes* paſs'd for Magicians and Enchanters: To theſe they added the Study of the Stars, of Nature, and Poeſy; and ſo were Philoſophers, Aſtronomers, &c.

Such were the *Curetes*, and after them the Druids; with this difference, that the *Curetes*, in the Time of the Flamens, went to the Wars; for which reaſon they were arm'd, and were wonderfully dextrous in dancing, Cap-a-pe, ſhaking their Bucklers and Javelins: From which Action, *Pezron* conjectures, they took their Name, *Curetes*; *Curo*, in the *Celtic*, being the ſame with the κείρω, of the *Greek*.

According to *Kircher*, the *Curetes* were what the *Spirits* are among the *Cabaliſts*, the *Powers* in *Dionyſius*, the *Demons* among the *Platoniſts*, and the *Genii* among the *Egyptians*. See DÆMON, &c.

Voſſius diſtinguiſhes three Kinds of *Curetes*, thoſe of *Etolia*, thoſe of *Phrygia*, and thoſe of *Crete*, which were originally derived from the *Phrygians*.

The firſt, he ſays, took their Name from κουρά, *tonſure*; in regard, from the Time of a Combat wherein the Enemy ſeiz'd their long Hair, they always kept it cut: Thoſe of *Phrygia* and *Crete*, he ſuppoſes were ſo call'd from κοῦρος, *young Man*; in regard they were young; or becauſe they nurs'd *Jupiter* when he was young. *De Idololat.*

CURFEW, or COURFEU, q. d. *Couvre-feu*, a Signal of Retreat, given in Cities taken in War, &c. to advertiſe the Inhabitants to go to bed, and not to ſtir out any more.

The *Curfeu-Bell*, wherewith the Signal was given, was ſometimes hung up as a Puniſhment of Sedition. *Paſquier* ſays, it was call'd *Carfeu*, and *Garefeu*; as being intended to advertiſe the People to ſecure themſelves from the Robbers and Debauchees of the Night.

The moſt antient *Curfeu*, was that eſtabliſh'd in *England*, by *William* the Conqueror; who appointed, under ſevere Penalties, that at the ringing of a Bell, at eight a-Clock in the Evening, every one ſhould put out their Lights, *cover*, or rake up their Fires, and go to bed.

Whence, to this Day, where a Bell is accuſtom'd to be rung about Bed-time, 'tis call'd *Curfeu-Bell*.

CURIA, in our antient Cuſtoms. It was uſual for the Kings of *England* to aſſemble the Biſhops, Peers, and great Men of the Kingdom, to ſome particular Place, at the chief Feſtivals in the Year; and this Aſſembly is call'd, by our Hiſtorians, *Curia*; becauſe there they conſulted about the weighty Affairs of the Nation: whence it was ſometimes alſo call'd, *Solennis Curia*, *Generalis Curia*, *Auguſtalis Curia*, and *Curia Publica*, &c. See COURT.

CURIA *adviſare vult*, in Law, is a Deliberation, which the Court ſometimes takes, before they give Judgment in a Cauſe wherein there ſeems to be any Point of difficulty.

CURIA *Baronum*. See COURT-*Baron*.

CURIA *Claudenda*, is a Writ that lies againſt him who ſhould fence and encloſe Ground, but refuſes or defers to do it.

CURIALITAS *Angliæ*. See COURTESY *of England*.

CURIA *Militum*, a Court ſo called; antiently held at *Carisbrook* Caſtle, in the Iſle of *Wight*. *Et idem Dominus Willielmus de inſula facere debet ſectam ad Curiam Domini caſtri de Crasbroc, de tribus ſeptimanis in tres ſeptimanas, in Curia quæ vocatur* Curia Militum.

CURIA, among the *Romans*, a Portion or Diviſion of a Tribe. See TRIBE.

In the Time of *Romulus*, a Tribe conſiſted of ten *Curiæ*, or a thouſand Men; each *Curia* being one hundred: That Legiſlator made the firſt Diviſion of his People into thirty *Curiæ*.

Afterwards, the Word *Curia*, *Curies*, or *Domus Curialis*, became uſed for the Place where each *Curia* held its Aſſemblies: Hence, *Curia* paſs'd to the Senate-houſe; and 'tis hence the Moderns come to uſe the Word *Curia*, Court, for a Place of Juſtice, and for the Judges, &c. there aſſembled. See COURT.

Some derive the Word *Curia* from *Cruor*; for what Reaſon we ſee not. *Varro* brings it from *Cura*, Care, *q. d.* an Aſſembly of People, charg'd with the Care of Publick Affairs. Others will have the Word come from the *Greeks*; maintaining, that at *Athens* they call'd κυρία the Place where the Magiſtrate held his Aſſizes, and the People uſed to aſſemble: κυρία, again, may come from κῦρος, *Authority*, *Power*; in regard, it was here the Laws were made. Hence alſo,

CURIO, the Chief, and Prieſt of a *Curia*.

Romulus, upon dividing the People into *Curiæ*, gave each Diviſion a Chief, who was to be Prieſt of that *Curia*, under the Title of *Curio*, *Curion*, and *Flamen Curialis*.

His Buſineſs was to provide and officiate at the Sacrifices of the *Curia*, which were call'd *Curionia*; the *Curia* furniſhing him with a Sum of Money on that Conſideration: which Penſion or Appointment was call'd *Curionium*.

Each Diviſion had the Election of its *Curio* ; but all theſe particular *Curio's*, were under the Direction of a Superior, or General, call'd *Curio Maximus* ; who was the Head of the Body ; and elected by all the *Curio's*, aſſembled in the *Comitia Curiata*.

All theſe Inſtitutions were ſet a-foot by *Romulus*, and confirm'd by *Numa*, as *Halicarnaſſæus* relates it. *Goodwin* will have two *Curio's* in each *Curia*.

CURIOSUS, *Curious*, an Officer of the *Roman* Empire, during the Emperors of the middle Age.

The *Curioſi* were Perſons appointed to have an Eye that there were no Frauds, and Malverſations committed ; particularly no Abuſes in what related to the Poſts, the Roads, *&c.* and to give Intelligence to the Court of what paſs'd in the Provinces.

This made them People of Importance ; and put 'em in a Condition of doing more harm than they prevented : on which account, *Honorius* caſhier'd 'em, at leaſt in ſome Parts of the Empire, *Anno* 415.

The *Curioſi* came pretty near to what we call Controllers : They had their Name from *Cura*, Care ; *Quod Curis agendis & erectionibus curſus publici inſpiciendis operam darent.*

CURLING *Stuff*, in Joinery. See CROSS-GRAIN'D *Stuff*.

CURNOCK, a Meaſure of Corn, containing four Buſhels. See MEASURE, and BUSHEL.

CURRANTS, a Kind of little Raiſins, or dried Grapes, of different Colours ; black, white, or red ; of the ſize of ordinary Gooſeberries, brought from ſeveral Places of the *Archipelago*, and among others, from the Iſthmus of *Corinth* ; whence their Name.

They muſt be choſen new, ſmall, and in large Maſſes ; and care be taken that the little *Spaniſh Currants* ben't foiſted in their room. When made up in Bales, they may keep two or three Years, without ſtirring, or giving 'em Air.

Their uſe is in ſeaſoning ſeveral Viands, and in ſome medicinal Compoſitions ; where they ſerve in lieu of Raiſins.

Sir *George Wheeler's* account of theſe Fruit, and the manner of preparing 'em is very curious.

The Iſland of *Zant*, he obſerves, is the chief Place whence the *Currants* are brought : the *Morea*, or the *Iſthmus* of *Corinth*, which was antiently the principal Plantation, and whence the *Latins* denominate 'em *Uvæ Corinthiacæ*, now, produces no more ; as having been much neglected : the Jealouſy of the *Turks* not allowing large Veſſels to enter the Gulf, to take 'em off their Hands.

They don't grow on Buſhes, like our Gooſeberries, tho that be the common Opinion ; but on Vines, like other Grapes ; except that the Leaves are ſomewhat thicker, and the Grapes ſomewhat ſmaller : They have no Stone ; and, in this Country, are all red, or rather black.

They gather 'em in *Auguſt*, diſpoſe 'em in Beds on the Ground till they be dry, clean 'em, and lay 'em up in Magazines, which the Natives call *Seraglio's* ; pouring them in at a Hole, till the Magazine be full. They cling ſo faſt together by their own weight, that they are forc'd to be dug out with Iron Inſtruments.

To barrel 'em for ſending abroad, they have People who greaſe their Feet and Legs, and tread 'em cloſe, that they may keep the better. They are ſold for about 12 Crowns the thouſand Weight ; and pay as much Cuſtom to the State of *Venice*.

Zant produces enough yearly to load five or ſix Veſſels ; *Cephalonia* three or four ; and the other Iſlands one. The *Engliſh* have a Factory at *Zant* ; the *Dutch* two or three Merchants, and the *French* one : the *Engliſh* conſuming more than ſix times the Quantity that both *France* and *Holland* do together.

Thoſe of *Zant* know but little of the uſe we make of 'em ; being perſuaded they only ſerve in dying of Cloth ; and being entirely ignorant of the Luxury of Chriſtmas Pyes, Puddings, *&c.*

CURRANT, or COURANT *Money*, good Money, or that which paſſes in Commerce from one to another. See COURANT.

CURRANT, *Curranto*, a ſort of running *French* Dance : Alſo a Muſical Air in triple Time. See COURANT.

CURRENT, in Hydrography, a Stream, or Flux of Water in any certain Direction. See RIVER, and WAVE.

Currents, in the Sea, are either *Natural* and *General*, as ariſing from the diurnal Rotation of the Earth on its Axis ; or *Accidental*, and *Particular*, caus'd by the Waters being driven againſt Promontories, or into Gulphs and Straights ; where, wanting room to ſpread, they are driven back, and thus diſturb the ordinary Flux of the Sea. See SEA, FLUX, *&c.*

The *Currents* are ſo violent under the Equator, where the Motion of the Earth is the greateſt, that they carry Veſſels very ſpeedily from *Africa* to *America* ; but abſolutely prevent their return the ſame way : ſo that Ships are forc'd to run as far as the 40th Degree of Latitude, to find a Paſſage into *Europe*.

In the Straights of *Gibraltar*, the *Currents* almoſt conſtantly drive to the Eaſtward, and carry Ships into the *Mediterranean* : They are uſually, too, found to drive the ſame way in St. *George's Channel*. The great Violence and dangerouſneſs of the Sea in the Straights of *Magellan*, is attributed to two contrary *Currents* ſetting in, one from the South, and the other from the North Sea.

CURRENTS, with reſpect to Navigation, may be defin'd, certain progreſſive Motions of the Water of the Sea, in ſeveral Places, either quite down to the Bottom, or to a certain determinate depth ; by which a Ship may happen to be carry'd forward more ſwiftly, or retarded in her Courſe, according to the Direction or Setting of the *Current*, in, with, or againſt the Courſe or Way of the Ship. See NAVIGATION.

The Buſineſs of *Currents* making a conſiderable Article in Navigation ; the way they ſet, together with their Strength, is to be carefully obſerv'd : this ſome do by the Ripplings of the Water, and by the driving of the Froth along the Shore, when in ſight of it : But the more uſual, as well as more accurate way, is thus :

They firſt fix their Boat, by throwing out a triangular piece of Wood, with a piece of Lead faſten'd to it and to the Stem of the Boat with a Cord ; and letting it ſink 60 Fathom, or more ; or, ſometimes, by a Kettle ty'd by the Bowl, and ſunk, as the other.

By either of theſe means, the Boat is brought to ride as at Anchor ; which done, the Log is caſt over, the Glaſs turn'd, and as the Log-line veers out, the Drift of the Log is ſet with the Compaſs. See LOG-LINE.

This ſhews whether there be any *Current*, or none ; and if any, which way it ſets, and at what rate it drives : obſerving, however, to add ſomething to the Drift, for the Boat's Drift ; for tho ſhe appear to ſtand ſtill, yet, in reality, ſhe is found to move. This Addition Experience has thus determin'd ; if the Line ſhe ride by be 60 Fathom, a third Part of the Drift to be added ; if 80 Fathom, a fourth ; if 100, a fifth.

If a Ship ſail along the Direction of a *Current*, 'tis evident the Velocity of the *Current* muſt be added to that of the Veſſel : If her Courſe be directly againſt the *Current*, it muſt be ſubtracted ; if ſhe ſail athwart the *Current*, her Motion will be compounded with that of the *Current* ; and her Velocity augmented or retarded, according to the Angle of her Direction, with that of the Direction of the *Current* ; *i. e.* ſhe will proceed in the Diagonal of the two Lines of Direction, and will deſcribe or paſs thro' that Diagonal in the ſame Time wherein ſhe would have deſcrib'd either of the Sides, by the ſeparate Forces. See COMPOSITION of *Motion*.

To determine a Ship's Courſe and Diſtance, ſailing obliquely with, or againſt a Current. Suppoſe, *v. g.* ſhe ſails N.E. 110 Miles, in a *Current* which ſets S.W. 30 Miles in the ſame Time : To ſolve the Problem geometrically ; ſet off 4 Points from N towards E, (Tab. *Navigation*, Fig. 15.) and draw A C equal to 110 Miles ; from C draw C B, parallel to the Line N N E, and equal to 30 Miles : Laſtly, draw A B, which will be the Ship's true Courſe and Diſtance.

To find which Trigonometrically. In the Triangle A B C, there are given A C 110, B C 30, and the Angle C, 22° 30' ; then, $AC+:AC-BC::t,\frac{1}{2}A+B:t,\frac{1}{2}B-A$. That is, as the Sum of A C and B C, *viz.* 140, is to their Difference 80 : : ſo is the Tangent of 78° 45' to the Tangent of 70° 49'. Hence her true Courſe appears to be N.E. 7°, 56' Eaſterly. For her Diſtance ; as the Sine of the Angle A, 7° 56', is to the Drift of the *Current* B C, 30, ſo is the Sine of the Angle at C 22° 30', to the Diſtance run, 83, two Miles. See COURSE.

Under-CURRENTS. Dr. *Halley* makes it highly probable, that in the *Downs*, in the Straights of *Gibraltar*, &c. there is an *Under-Current*, whereby as much Water is carried out, as is brought in by the *upper Current*.

This he argues from the Offing between the North and South Foreland, where it runs Tide and Half-Tide, *i. e.* it is either Ebb or Flood in that Part of the *Downs*, three Hours ere it is ſo off at Sea : A certain Sign, that tho the Tide of Flood runs aloft, yet the Tide of Ebb runs under-foot, *i. e.* cloſe by the Ground ; and ſo at the Tide of Ebb it will flow under-foot.

This he confirms by an Experiment in the *Baltic* Sound, which he receiv'd from an able Seaman preſent at the making it : Being there, then, with one of the King's Frigates, they went with their Pinnace into the Mid-Stream, and were carried violently by the *Current*. Soon after that they ſunk a Baſket with a large Cannon-Bullet, to a certain depth of Water, which gave check to the Boat's Motion ; and ſinking it ſtill lower and lower, the Boat was driven a-head to the Windward, againſt the *upper Current* : the *Current* aloft, not being above four or five Fathom deep. He added, that the lower the Baſket was let down, the ſtronger the *Under-Current* was found.

From this Principle, 'tis eaſy to account for that vaſt Draught of Water continually pouring in with the *Current* out of the *Atlantic* into the *Mediterranean*, thro' the Straights of *Gibraltar* ; a Paſſage about 20 Miles broad : yet,

yet without any ſenſible riſing of the Water along the Coaſts of *Barbary*, &c. or any overflowing of the Lands, which there lie very low.

CURRICULUS, in our antient Writers, the *Year*, or Courſe of a Year. See YEAR.

Actum eſt hoc annorum Dominicæ incarnationis quatuor quinquagenis & quinquies, quinis luſtris & tribus curriculis, *i. e.* In the Year 1028; for four times fifty makes two hundred, and five times two hundred makes one thouſand; five *Luſtra* are twenty five Years, and three *Curriculi* are three Years.

CURRYING, or COURRYING, a Method of preparing Leather, with Oil or Tallow; which raiſes on the Hair, or Wool-ſide, a kind of Grain, not unlike that of *Morocco*, or *Maroquin*. Tho there is alſo a Kind of *curried* Leather without Grain. See LEATHER.

Currying is the laſt Preparation, and puts the Leather in a Condition to be us'd for Shoes, Saddles, Harneſs, &c. It is equally practis'd on Sheep, Calf, and Cows-Skins.

The Colours given in *Currying*, are, black, white, red, yellow, and green: The other Colours are given by the Skinners; who differ from the *Curriers* in this, That they apply their Colours on the Fleſh-ſide; the *Curriers* on the Hair-ſide.

Manner of currying *in black, with the Grain.*

Of Blacks there are four Caſes: Either the Skins are put in Tallow on both Sides; or Oil is us'd, in lieu of Tallow, on the Fleſh-ſide; or Tallow is us'd alone on the Hair-ſide, and nothing on the other; or Tallow is us'd on both Sides, but no Grain rais'd.

The two firſt are us'd for Cows and Calves Leather; the ſecond is the only way uſed for Sheep; and the two laſt are uſed occaſionally for Cow and Bullock: For Calf and Sheep, they uſe Sumac on the Fleſh-ſide, which gives an Orange-caſt.

For *Neats-Skin* in black; The Skin, coming from the Tanner, is wet ſeveral times with a Broom, roll'd and trod under-foot to make it tractable, drain'd, and as much of the remaining Fleſh as poſſible taken off with the Knife; hung in the Air till half dry, then wet and trampled again, and again.

This done, 'tis rub'd over with a Pummel, or Call, having Niches in manner of Teeth, to render it ſtill more pliant; and ſing'd with Straw, to prepare it to receive the Tallow; which is applied, boiling hot, on both Sides.

The Skin is then ſing'd a ſecond time, laid four Hours in a Veſſel of freſh Water, trampled, and work'd a ſecond time with the Pummel on each ſide, and ſtoutly drain'd; ſmeer'd over with its firſt black, made of Galls and Ferailles, boil'd in Beer-agre, or ſour Beer; half dry'd, ſtretch'd on a Table, and the Grain beat down with a flat Iron Inſtrument, drawn over it from place to place.

It now receives its ſecond black, made of Galls, Copperas, and Gum Arabic; when dry, and ſtretch'd on a Table, 'tis ſmeer'd over with Beer-agre; then folded from Corner to Corner, and the Pummel drawn over it to cut the Grain, firſt on the Hair-ſide, then on the Fleſh-ſide; the laſt with a Pummel of Cork: The Beer hanging in it is taken out with a Hair Torch, boil'd in Hatter's Lie; and the Skin faſten'd to the Table, and clean'd with the Iron Inſtrument abovemention'd, and again wip'd with a piece of worſted Stocking. The Skin is now brighten'd, on the Hair-ſide, by a Luſtre of Barberries, to prepare it to receive its laſt Grain.

The Grain, we already obſerv'd, is begun, by folding the Skin, the Hair-ſide inwards, ſeveral ways: to finiſh it, 'tis again folded, after its firſt Luſtre, two ways; firſt from Corner to Corner, a little ſlanting; then a-croſs, *i. e.* firſt directly, or from Eye to Eye, then from Head to Tail.

The Grain thus effected, the laſt Luſtre, which makes its laſt Preparation, is given; compos'd of Gum Arabic, Garlick, Beer Vinegar, and *Flanders* Size, boil'd together, and applied cold. See LUSTRE.

Calf-Skin, in black, is prepared much after the ſame manner; tho begun differently. After wetting, taking off as much of the Fleſh remaining as poſſible, and drying; they pounce the Fleſh-ſide with a hard rough Pounce-Stone, which makes it more ſmooth and gentle; then give the Grain with the Pummel, put in the Tallow: the reſt as before.

Sheep-Skins, in black. What theſe have peculiar in their Preparation, is, that they are firſt ſtretch'd on a Table to get off the Bourre, or Tan wherewith they are loaden; then wet, trod under-foot, and Tallow added on the Hair-ſide: they are again wet, again trod, ſtretch'd on the Table, and the Water ſqueez'd out with the Pummel; then black'd, repaſs'd under the Pummel on each ſide, dried, and all the Roughneſs and Inequality par'd off with a flat, round, cutting Inſtrument: the reſt as before.

Sleek Leather, or that without any Grain, made of Cows or Bullocks Leather, differs a little in its Preparation from the former. The Skins being wet, trod, and paſs'd under the Pummel, the Fleſh is taken off; the reſt as in the firſt Article: Obſerving, that the Tallow be applied on both Sides as thick as poſſible: being now ſteep'd in Water, trod, friz'd, and black'd the firſt time; the ſecond black is laid on, till the Hair-ſide be quite ſmooth. After receiving their two Luſtres, they are preſs'd between two Tables; without having plaited or folded 'em in any manner during the whole Preparation.

CURSITOR, an Officer or Clerk belonging to the Court of Chancery, who maketh out original Writs. See CHANCERY, and WRIT.

Theſe are alſo called *Clerks of the Courſe*; and are 24 in Number: making a Corporation of themſelves. To each of 'em are allotted ſeveral Shires; in which Shires they make out ſuch original Writs as are by the Subject requir'd.

CURSOR, a Piece, little Ruler, or Label of Braſs, divided like a Line of Sines, and ſliding in a Groove, or Notch, along the middle of another Label, or Ruler, repreſenting the Horizon, and always at right Angles to it.

It is uſed in the *Analemma*. See ANALEMMA.

CURSOR is alſo uſed for a Point ſcrew'd on the Beam-Compaſs; and which may be moved, or ſlidden along the Beam thereof, for the ſtriking of greater or leſs Circles. See *Beam*-COMPASS.

CURTAILING, in the Manage, the *Docking*, or cutting off a Horſe's Tail. See DOCKING.

The Practice of *Curtailing* is no where in vogue ſo much as in *England*; it being a popular Opinion, that the cutting off the Tail renders the Horſe's Chine or Back the ſtronger, and more able to bear Burdens: which ſeems warranted by Experience.

The Amputation is uſually made between the fourth and fifth Joints of the Tail; a Ligature being firſt ty'd tight about the Place, to prevent the Flux of Blood; and the raw Stump afterwards ſear'd up with a hot Iron, till the Extremities of the Veſſels be all ſtop'd.

CURTAIN, or COURTINE, in Fortification, that Part of a Wall, or Rampart, which is between two Baſtions; or which joins the Flanks thereof. See RAMPART, and BASTION.

It is uſually border'd with a Parapet five Foot high; behind which the Soldiers ſtand to fire upon the Covert Way, and into the Moat.

Beſiegers ſeldom carry on their Attacks againſt the *Curtain*; becauſe it is the beſt flanked of any Part. See FLANK.

Du Cange derives the Word *Curtain* from the Latin *Cortina*, *quaſi minor Cortis*, a little Country Court, inclos'd with Walls: He ſays, it was in Imitation hereof, that they gave this Name to the Walls and Parapets of Cities, which incloſe 'em like *Courts*: He adds, that the *Curtains* of Beds take their Name from the ſame Origin; that *Cortis* was the Name of the General's, or Prince's Tent; and that thoſe who guarded it were call'd *Cortinarii* and *Curtiſani*.

CURTATE *Diſtance*, in Aſtronomy, the Diſtance of a Planet's Place from the Sun, reduced to the Ecliptick; or, the Interval between the Sun, and that Point where a Perpendicular let fall from the Planet, meets with the Ecliptic. See PLACE, and DISTANCE.

CURTATION, the Interval between a Planet's Diſtance from the Sun, and the *Curtate* Diſtance. See PLANET.

From the preceding Article, 'tis eaſy to find the *Curtate Diſtance*; whence the manner of conſtructing Tables of *Curtations* is obvious.

The Quantity of Inclination, Reduction, and *Curtation* of a Planet, depending on the Argument of the Latitude; *Kepler*, in his *Rhudolphin Tables*, reduces the Tables of 'em all into one, under the Title of *Tabulæ Latitudinariæ*.

CURTESY. See COURTESY.

CURTICONE, in Geometry, a Cone whoſe top is cut off by a Plane parallel to its Baſis; call'd alſo *Truncated Cone*. See TRUNCATED.

CURVATURE *of a Line*, is its Bending, or Flexure; whereby it becomes a Curve, of ſuch peculiar Properties. See LINE, and CURVE.

Thus, the *Curvature* of the Circle is ſuch, as that all Points of the Periphery are equally diſtant from one Point within, called the Centre.

The *Curvatures* of different Circles, are to one another reciprocally as their Radii. See CIRCLE.

CURVE, in Geometry, a Line, wherein the ſeveral Points it conſiſts of tend ſeveral ways, or are poſited towards different Quarters. See LINE.

In this Senſe, the Word is uſed in oppoſition to a *ſtrait* Line; whoſe ſeveral Points are poſited towards the ſame Quarter.

Hence, Figures terminated with Lines of the firſt Property, are called *Curvilinear* Figures; in oppoſition to thoſe terminated with the latter, call'd *Rectilinear* Figure. See RECTILINEAR, and FIGURE.

The Doctrine of *Curves*, and of the Figures and Solids generated from them, conſtitute what we call the *Higher Geometry*. See GEOMETRY.

In a *Curve*, the Line AD, (Tab. *Geometry*, Fig. 51.) biſſecting the parallel Lines MM, is call'd the *Diameter*:

If the Lines be equidiſtant, and it cut 'em at right Angles, it is call'd the *Axis*; and the Point A, whence the Diameter is drawn, is call'd the *Vertex*. See DIAMETER, AXIS, and VERTEX.

The equidiſtant Lines M M are call'd *Ordinates*, or *Applicates*; and their Halves, P M, *Semiordinates*. See ORDINATE, and SEMIORDINATE.

The Portion of the Diameter A P, between the Vertex, or other fix'd Point, and an Ordinate, is call'd the *Abſciſſe*. See ABSCISSE.

And the Concourſe of all the Diameters, the *Centre*. See CENTRE.

Curves are diſtinguiſh'd into *Algebraic*, frequently with *Des Cartes* call'd *Geometrical*; and *Tranſcendental*, called by the ſame *Cartes*, &c. *Mechanical Curves*.

Algebraical CURVES, are thoſe wherein the Relation of the Abſciſſes A P, A P, AP, to the Semiordinates M P, M P, M P, may be expreſs'd by an Algebraical Equation. See EQUATION.

Suppoſe, *v. g.* in a Circle, (Fig. 52.) $AB=a$, $AP=x$, $PM=y$; then will $PB=a-x$; conſequently, as $PM^2=AP$, $PB\,y^2=ax-x^2$. Or, ſuppoſe $PC=x$, $AC=a$, $PM=y$; then will $MC^2=PC^2=PM^2$; that is, $a^2-x^2=y^2$.

Note, Thoſe are alſo call'd *Algebraic Curves*, which are of a determinate Order; ſo, as that the Equation always continues the ſame in the ſeveral Points of the *Curve*.

Moſt Authors, after *Des Cartes*, call Algebraic *Curves*, *Geometrical* ones; as admitting none elſe into the Conſtruction of Problems; nor, conſequently, into Geometry. But *Wolfius*, from Sir *I. Newton*, and M. *Leibnitz*, is of another Opinion; and thinks, that in the Conſtruction of a Problem, one *Curve* is not to be preferr'd to another, for its being defin'd by a more ſimple Equation, but for its being more eaſily deſcrib'd. See PROBLEM.

A Tranſcendental CURVE, is that which can't be defin'd by an Algebraic Equation.

Theſe *Curves*, *Des Cartes*, &c. call *Mechanical* ones; and under that Notion exclude 'em out of Geometry: But *Newton* and *Leibnitz*, for the Reaſon abovemention'd, are of another Opinion. Indeed, *Leibnitz* has found a new Kind of Equations, which he calls *Tranſcendental Equations*; whereby even *Tranſcendental Curves*, and thoſe which are not of any determinate Order, *i. e.* which don't continue the ſame in all the Points of the *Curve*, may be defin'd. *Act. Erudit. Leip.* A. 1684. p. 234.

Algebraic CURVES *of the ſame Kind or Order*, are thoſe whoſe Equations riſe to the ſame Dimenſion. See ORDER.

Geometrical Lines being defined by the Relation between the Ordinates and Abſciſſes, or (which is the ſame, by the Number of Points wherein they may be cut by a right Line) are well diſtinguiſh'd into *two Kinds* or *Orders*: In which view, Lines of the firſt Order will be right Lines; and thoſe of the ſecond or quadratic Order will be *Curves*, viz. *Conic Sections*.

Now, a *Curve* of the firſt Kind is the ſame with a Line of the ſecond, (a right Line not being number'd among *Curves*) and a *Curve* of the ſecond Kind, the ſame with a Line of the third. Thus, *Curves* of the firſt Kind, are thoſe whoſe Equation riſe to two Dimenſions; if they riſe to three, *the Curves are of the ſecond Kind*; if to four, of the third, &c.

Thus, *e. g.* the Equation for a Circle is, $y^2=ax-x^2$, or $a^2-x^2=y^2$. A Circle, therefore, is a *Curve* of the firſt Kind.

Again, *a Curve of the firſt Kind*, is that defined by the Equation $ax=y^2$; and a *Curve of the ſecond Kind*, that defined by the Equation $a^2x=y^3$. See CIRCLE.

For the various Curves *of the firſt Kind, and their Properties*, ſee CONIC *Sections*.

For Curves of the ſecond Kind, Sir *I. Newton* has a diſtinct Treatiſe, under the Title of *Enumeratio linearum tertii ordinis*.

Curves of the ſecond and other higher Kinds, he obſerves, have Parts, and Properties ſimilar to thoſe of the firſt: Thus, as the *Conic* Sections have Diameters and Axes; the Lines cut or biſſected by theſe, are call'd *Ordinates*; and the Interſection of the *Curve* and Diameter, the *Vertex*: So, in *Curves of the ſecond Kind*, any two parallel right Lines being drawn ſo as to meet the *Curve* in three Points; a right Line cutting theſe Parallels, ſo, as that the Sum of the two Parts between the Secant and the *Curve* on one ſide, is equal to the third Part terminated by the *Curve* on the other ſide, will cut, in the ſame manner, all other right Lines parallel to theſe, and that meet the *Curve* in three Points, *i. e.* ſo, as that the Sum of the two Parts on one ſide, will be ſtill equal to the third Part on the other ſide.

Theſe three Parts, therefore, thus equal, may be call'd *Ordinates*, or *Applicates*; the Secant the *Diameter*; and where it cuts the Ordinates at right Angles, the *Axis*: The Interſection of the Diameter and the *Curve*, the *Vertex*; and the Concourſe of the two Diameters, the *Centre*; and the Concourſe of all the Diameters, the *General Centre*.

Again, as a Hyperbola of the firſt Kind has two Aſymptotes; that of the ſecond has three, that of the third four, &c. and as the Parts of any right Line between the Conic Hyperbola and its two Aſymptotes are equal on either ſide; ſo, in Hyperbolas of the ſecond Kind, any right Line cutting the *Curve* and its three Aſymptotes in three Points; the Sum of the two Parts of that right Line, extended from any two Aſymptotes the ſame way to two Points of the *Curve*, is equal to the third Part, extended from the third Aſymptote, the contrary way to the third Point of the *Curve*. See ASYMPTOTE, HYBERBOLA, &c.

Again, as in other Conic Sections, not parabolical, the Square of the Ordinate, *i. e.* the Rectangle of the Ordinates, drawn to contrary Parts of the Diameter, is to the Rectangle of the Parts of the Diameter terminated at the Vertices of an Ellipſis or Hyperbola, as a given Line, call'd the *Latus Rectum*, is to that Part of the Diameter which lies between the Vertices, and is call'd the *Latus Tranſverſum*: So, in *Curves of the ſecond Kind*, not parabolical, the Parallelopiped under the three Ordinates, is to the Parallelopiped under the Parts of the Diameter cut off at the Ordinates and the three Vertices of the Figure, in a given Ratio: wherein, if there be taken three right Lines at the three Parts of the Diameter plac'd between the Vertices of the Figure, each to each; then thoſe three right Lines may be call'd the *Latera Recta* of the Figure, and the Parts of the Diameter between the Vertices, the *Latera Tranſverſa*.

And, as in a Conic Parabola, which has only one Vertex to one and the ſame Diameter, the Rectangle under the Ordinates, is equal to the Rectangle under the Part of the Diameter cut off at the Ordinates and Vertex, and a given right Line call'd the *Latus Rectum*: So, in *Curves of the ſecond Kind*, which have only two Vertices to the ſame Diameter; the Parallelopiped under three Ordinates, is equal to the Parallelopiped under two Parts of the Diameter cut off at the Ordinates and the two Vertices, and a given right Line, which may therefore be call'd the *Latus Tranſverſum*. See LATUS; ſee alſo PARABOLA.

Further, as in the Conic Sections, where two Parallels terminated on each ſide by a *Curve*, are cut by two Parallels, terminated on each ſide by a *Curve*; the firſt by the third, and the ſecond by the fourth: the Rectangle of the Parts of the firſt, is to the Rectangle of the Parts of the ſecond, as that of the ſecond is to that of the fourth: So, when four ſuch right Lines occur in a *Curve* of the ſecond Kind, each in three Points; the Parallelopiped of the Parts of the firſt, will be to that of the Parts of the ſecond, as that of the ſecond to the Parts of the fourth. See SECTION.

Laſtly, the Legs of *Curves*, both of the *firſt*, *ſecond*, and *higher Kinds*, are either of the Parabolic or Hyperbolic Kind: an Hyperbolic Leg, being that which approaches infinitely towards ſome Aſymptote; a Parabolic, that which has no Aſymptote. See ASYMPTOTE.

Theſe Legs are beſt diſtinguiſh'd by their Tangents; for, if the Point of Contact go off to an infinite Diſtance, the Tangent of the Hyperbolic Leg, will coincide with the Aſymptote; and that of the Parabolic Leg, recede infinitely, and vaniſh. The Aſymptote, therefore, of any Leg, is found by ſeeking the Tangent of that Leg to a Point infinitely diſtant; and the Bearing of an infinite Leg, is found by ſeeking the Poſition of a right Line parallel to the Tangent, when the Point of Contact is infinitely remote: for this Line tends the ſame way towards which the infinite Leg is directed.

Reduction of CURVES *of the ſecond Kind.*

Sir *I. Newton* reduces all *Curves* of the *ſecond Kind* to four Caſes of Equation: In the firſt, the Relation between the Ordinate and Abſciſſe, making the Abſciſſe x, and the Ordinate y, aſſumes this form $xyy+ey=ax^3+bxx+cx+d$. In the ſecond Caſe, the Equation aſſumes this form $xy=ax^3+bx^2+cx+d$. In the third Caſe, the Equation is $yy=ax^3+bx^2+cx+d$. In the fourth, the Equation is of this form, $y=ax^3+bx^2+cx+d$.

Enumeration of the CURVES *of the ſecond Kind.*

Under theſe four Caſes, the ſame Author brings a vaſt Number of different Forms of *Curves*, to which he gives different Names.

A Hyperbola lying wholly in the Angle of the Aſymptotes, like a Conic Hyperbola, he calls an *Inſcribed Hyperbola*; that which cuts the Aſymptotes, and contains the Parts cut off within its own Periphery, a *Circumſcrib'd Hyperbola*; that, one of whoſe infinite Legs is inſcrib'd, the other circumſcrib'd, he calls *Ambiginal*; that whoſe Legs look towards each other, and are directed the ſame way, *Converging*; that where they look contrary ways, *Diverging*; that where they are convex different ways, *Croſs-leg'd*; that applied to its Aſymptote, with a concave Vertex, and diverging Legs, *Conchoidal*; that which cuts its Aſymptote with contrary Flexures, and is produced each way into contrary Legs, *Anguineous*, or *Snake-like*; that which cuts its

Conjugate

Conjugate a-croſs, *Cruciform*; that which returning around cuts it ſelf, *Nodated*; that whoſe two Parts concur in the Angle of Contact, and there terminate, *Cuſpidated*; that whoſe Conjugate is oval, and infinitely ſmall, *i. e.* a Point, *Pointed*; and that which from the Impoſſibility of its two Roots, is without either Oval, Node, Cuſp, or Point *pure*: And in the ſame manner he denominates a Parabola, to be *converging*, *diverging*, *cruciform*, &c. Where the Number of Hyperbolic Legs, exceeds that of the Conic Hyperbola; he denominates the *Hyperbola redundant*.

Now, the various *Curves* which he enumerates under theſe four Caſes, are in Number 72; whereof nine are *redundant* Hyperbolas, without Diameters, having three Aſymptotes including a Triangle.

The firſt conſiſting of three Hyperbolas, one *inſcribed*, another *circumſcribed*, another *ambigonal*, with an *Oval*; the ſecond *Nodated*; the third *Cuſpidated*; the fourth *Pointed*; the fifth and ſixth *Pure*; the ſeventh and eighth *Cruciform*; the laſt *Anguineal*.

There are 12 *redundant* Hyperbolas, having only one Diameter: The firſt *Oval*, the ſecond *Nodated*, the third *Cuſpidated*, the fourth *Pointed*, the fifth, ſixth, ſeventh, and eighth, *Pure*; the ninth and tenth *Cruciform*; the eleventh and twelfth *Conchoidal*.

Two are *redundant* Hyperbolas with three Diameters.

Nine are *redundant* Hyperbolas, with three Aſymptotes converging to a common Point; the firſt form'd of the fifth and ſixth redundant Parabolas, whoſe Aſymptotes include a Triangle; the ſecond, of the ſeventh and eighth; the third and fourth, of the ninth; the fifth is form'd of the fifth and ſeventh of the redundant Hyperbolas, with one Diameter; the ſixth, of the ſixth and ſeventh; the ſeventh, of the eighth and ninth; the eighth, of the tenth and eleventh; the ninth, of the twelfth and thirteenth: All which Converſions are effected, by diſtinguiſhing the Triangle comprehended between the Aſymptotes, till it vaniſh into a Point.

Six are defective Parabolas, having no Diameters: The firſt *Oval*, the ſecond *Nodated*, the third *Cuſpidated*, the fourth *Pointed*, the fifth *Pure*.

Seven are defective Hyperbolas, having Diameters: The firſt and ſecond *Conchoidal*, with an *Oval*; the third *Nodated*, the fourth *Cuſpidated*, which is the Ciſſoid of the Antients; the fifth and ſixth, *Pointed*; the ſeventh *Pure*.

Seven are Parabolic Hyperbolas, having Diameters: The firſt *Oval*, the ſecond *Nodated*, the third *Cuſpidated*, the fourth *Pointed*, the fifth *Pure*, the ſixth *Cruciform*, the ſeventh *Anguineous*.

Four are Parabolic Hyperbolas. Four are Hyperboliſms of the Hyperbola. Three Hyperbolas of the Ellipſis. Two Hyperboliſms of the Parabola.

Five are diverging Parabolas: one, a *Trident*; the ſecond *Oval*, the third *Nodated*, the fourth *Pointed*, the fifth *Cuſpidated*; (this is *Neal*'s *Parabola*, uſually called the *Semicubic Parabola*:) the ſixth, *Pure*.

Laſtly, one commonly call'd the *Cubic Parabola*.

Organical Deſcription of theſe Curves.

1ſt, If two Angles given in Magnitude, PAD, PBD, (Tab. *Analyſis*, Fig. 53.) revolve round Poles given in poſition, A and B; and their Legs, AP, BP, with their Point of Concourſe, P, paſs over another right Line: The other two Legs AD, BD, with their Point of Concourſe D, will deſcribe a Conic Section paſſing thro' the Poles AB: Unleſs that Line happen to paſs thro' either of the Poles A or B; or unleſs the Angles BAD and ABD vaniſh together: in which Caſes, the Point will deſcribe a right Line.

2dly, Now, if the Legs, AP, BP, by their Point of Concourſe, P, thus deſcribe a Conic Section paſſing thro' one of the Poles, A; the other two, AD, BD, with their Point of Concourſe D, will deſcribe a *Curve of the ſecond Kind*, paſſing thro' the other Pole B, and having a double Point in the firſt Pole A: Unleſs the Angle BAD, ABD, vaniſh together; in which Caſe, the Point D will deſcribe another Conic Section, paſſing thro' the Pole A.

3dly, If the Conic Section deſcrib'd by the Point P, paſs thro' neither of the Poles AB; the Point D will deſcribe a *Curve of the ſecond or third Kind*, having a double Point: which double Point will be found in the Concourſe of the deſcribing Legs AD, BD: When the two Angles BAP, ABP, vaniſh together, the *Curve* deſcribed will be of the *ſecond Kind*, when the Angles BAD, ABD, vaniſh together; otherwiſe of the *third Kind*, having two other double Points in the Poles A and B.

With regard to *double Points of Curves*: We have obſerv'd that *Curves* of the ſecond Kind may be cut by a right Line in thoſe Points: Now two of theſe ſometimes coincide, *v. g.* when the right Line paſſes thro' an infinitely ſmall Oval; or thro' the Concourſe of two Parts of a *Curve*, mutually cutting each other, and uniting in a Cuſp. Sometimes the right Line, even, only cuts the *Curve* in one Point; as in Ordinates of the *Carteſian* and *Cubic Parabola*, &c. In which Caſe, we muſt conceive the right Lines paſſing thro' two other Points of a *Curve*, placed, as it were, at an infinite diſtance: Now theſe coincident Interſections, whether at a finite or infinite Diſtance, make what we call *double* Point.

Geneſis of Curves *of the* ſecond Order *by Shadows*.

If the Shadows of Figures be projected on an infinite Plane, illumin'd by a lucid Point; the Shadows of Conic Sections will ſtill be Conic Sections; thoſe of *Curves* of the ſecond Kind, will be *Curves* of the ſecond Kind; thoſe of the third Kind, *Curves* of the third Kind, *&c.*

And as a *Curve*, in projecting a Shadow, generates all the Conic Sections; ſo, the five diverging Parabolas, with their Shadows, generate and exhibit all other *Curves* of the ſecond Kind.

And in this manner may a Train of the *ſimple Curves* of other Kinds be found, which ſhall form all the other *Curves* of the ſame Kind, by their Shadows projected from a lucid Point, upon a Plane.

Deſcription of Curves *of the* ſecond Order, *having double Points*.

Theſe are all deſcrib'd from ſeven given Points, whereof one is the double Point it ſelf: Thus, let there be given any ſeven Points of the *Curve* to be deſcribed; as, *v. g.* A, B, C, D, E, F, G, (Tab. *Analyſis*, Fig. 54.) whereof A is the double Point: join the Point A, and any other two Points, *v. g.* B and C; and let the Angle CAB of the Triangle ABC, revolve about its Vertex A; and another of the Angles ABC, about its Vertex B. And when the Point of Concourſe C, of the Legs AC, BC, is ſucceſſively applied to the four other Points D, E, F, G, let the Concourſe of the remaining Legs AB and BA, fall on the four Points P, Q, R, S.

Thro' thoſe four Points, and the fifth A, deſcribe a Conic Section; and let the foremention'd Angles CAB, CBA, ſo revolve, as that the Point of Concourſe of the Legs AB, BA, may paſs over that Conic Section; and the Concourſe of the other Legs AC, BC, will deſcribe the propoſed *Curve*.

Uſe of theſe Curves *in the Conſtruction of Equations*.

The uſe of *Curves* in Geometry, is by means of the Interſections thereof, to ſolve Problems. See Construction.

Suppoſe, *v. g.* an Equation to be conſtructed of nine Dimenſions, as $x^9 + bx^7 + cx^6 + dx^5 + ex^4 + fx^3 + gx^2 + hx + r = o$; where b, c, d, &c. ſignify any given Quantities affected with the Signs + and −: aſſume an Equation to a Cubic Parabola $x^3 = y$; and the firſt Equation, writing y for x^3 will come out $y^3 + bxy^2 + cy^2 + dx^2y + exy + my + fx^3 + gx^2 + hx + k = o$; an Equation to another *Curve* of the ſecond Kind, where m or f may be aſſum'd or annulled. And by the Deſcriptions and Interſections of theſe *Curves* will be given the Roots of the Equation to be conſtructed. 'Tis ſufficient to deſcribe the Cubical Parabola once.

If the Equation to be conſtructed, by omitting the two laſt Terms hx and k, be reduced to ſeven Dimenſions; the other *Curve*, by expunging m, will have the double Point in the beginning of the Abſciſſe, and may be eaſily deſcrib'd as above: If it be reduced to ſix Dimenſions, by omitting the three laſt, taking $gx^2 + hx + k$; the other *Curve*, by expunging f, will become a Conic Section: and if, by omitting the three laſt Terms, the Equation be reduced to three Dimenſions, we ſhall fall on Dr. *Wallis*'s Conſtruction by the Cubic Parabola and right Line.

Rectification of a Curve, is the finding of a right Line equal to a *Curve*. *For the Praxis hereof*, ſee Rectification *of Curves*.

Quadrature of a Curve, the finding of the Area, or Space included by a *Curve*; or the aſſigning of a Square equal to a *Curvilinear Space*. See Quadrature.

Family of Curves, is an Aſſemblage of ſeveral *Curves* of different Kinds, all defined by the ſame Equation of an indeterminate Degree; but differently, according to the Diverſity of Kind.

E. g. Suppoſe an Equation of an indeterminate Degree, $a^{m-1}x = y^m$. If $m = 2$, then will $ax = y^2$; if $m = 3$, then will $a^2x = y^3$; if $m = 4$, then $a^3x = y^4$, *&c.* All which *Curves* are ſaid to be of the ſame *Family*, or *Tribe*.

The Equations whereby the Families of Curves are defined, are not to be confounded with the Tranſcendental ones: For tho, with regard to the whole Family, they be of an indeterminate degree, yet, with reſpect to each ſeveral *Curve* out of the Family, they are determinate; whereas tranſcendent Equations are of an indefinite Degree, with reſpect to the ſame *Curve*.

All Algebraic *Curves*, therefore, compoſe a certain Family, conſiſting of innumerable others; each whereof comprehends infinite Kinds. For ſince the Equations whereby the *Curves* are defined enter the *Facta*, either of the Powers

of the Abſciſſes and Semiordinates into the given Coefficients, or of the Powers of the Abſciſſes into the Powers of the Semiordinates, or of the mere given Quantities; and all Equations may be equal to nothing, (*v.g.* if $ax = y^2$, then $ax - y^2 = 0$); the Equation for all Algebraical *Curves* will be $a\,y^m + b\,x^n + c\,y^r x^s + d\,f = 0$.

Exponential CURVE, is that defined by an Exponential Equation; that is, by an Equation wherein is an Exponential Quantity, *v. g.* x^x, a^x. See EXPONENTIAL.

The Symptoms, Properties, Geneſes, &c. of particular Curves, v. g. *Cycloid, Logarithmic Curves, Conchoid, &c. ſee under their proper Heads,* CYCLOID, LOGARITHMIC, CONCHOID, *&c.*

CURVET, in the Manage. See COURVET.

CURVILINEAL *Figures*, in Geometry, are Spaces bounded by crooked Lines; as the Circle, Ellipſis, Spherical Triangle, *&c.* See CURVE, and FIGURE.

CURULE *Chair*, *Sella Curulis*, in Antiquity, an Ivory Seat, whereon certain of the *Roman* Magiſtrates had a Right to ſit.

The *Curule* Magiſtrates were the Ediles, Prætors, Cenſors, and Conſuls. See EDILE, *&c.*

The Senators who had bore theſe Charges, were carried to the Senate on *Curule Chairs*; as alſo thoſe who triumph'd: the Chair being fitted into a kind of Chariot, *Currus*; whence *Curules*. See TRIUMPH.

The *Curule Chair* is uſed on Medals, to expreſs a *Curule* Magiſtracy: When travers'd by a Haſta, 'tis the Symbol of *Juno*, and ſerves to expreſs the Conſervation of Princeſſes.

CUSP, *Cuſpis*, properly denotes the Point of a Spear.

It is particularly us'd in Aſtronomy, to expreſs the Points or Horns of the Moon, or other Luminary. See MOON, CRESCENT, ECLIPSE, *&c.*

In Aſtrology, *Cuſp* is uſed for the firſt Point of the twelve Houſes, in a Figure or Scheme of the Heavens.

CUSPIDATED, in Botany, is when the Leaves of a Flower end in a *Cuſp*, or Point, reſembling that of a Spear.

CUSPIDATED *Hyperbola*, &c. See HYPERBOLA.

CUSTODE *Admittendo*, and CUSTODE *Amovendo*, are Writs for the admitting, or removing of Guardians. See GUARDIAN.

CUSTODES *Libertatis Angliæ, authoritate Parliamenti*, was the Style or Title in which Writs, and other Judicial Proceedings, did run in the Rump Time; that is, from the Death of King *Charles* I. till *Oliver* was declared Protector, *&c.*

CUSTOM, the Manners, Ceremonies, or Ways of living of a People, which in time have turn'd into Habitude, and by Uſage, obtain'd the Force of Laws. See LAW.

In this Senſe, *Cuſtom* implies Things that were at firſt voluntary, but are become neceſſary by uſe: Thus, the Preſents made by Officers at their admiſſion into Poſts, are only due becauſe they have paſs'd into *Cuſtom*. See FEE.

The Word further ſignifies the doing or not doing certain Things, introduc'd by the greateſt Part of the People of a Country, or Province: If there be nothing evil in ſuch *Cuſtom*, it obliges, till it be either abrogated by a contrary *Cuſtom*, or a Law.

For a *Cuſtom* thus eſtabliſh'd to have the Force of a Law, 'tis neceſſary, ordinarily, that it be founded on ſome natural Equity, or ſome conſiderable Good; and that it have ſubſiſted *ultra tritavum*: but, as this is hard to prove, 'tis ſufficient if two or more Witneſſes depoſe they heard their Fathers ſay the ſame of their Time.

If it be Matter of Record, the Continuance of 100 Years is ſufficient. See RECORD.

The Effect of a *Cuſtom* thus circumſtantiated, is, that it has the ſame Force and Authority as a Law; making what we call *Lex non ſcripta*; and that in popular States and limited Monarchies, it ſerves to interpret the written Laws: for in abſolute Monarchies, 'tis the King alone has the Power of interpreting Laws.

Hence, the Word *Cuſtom* is ſtill retain'd, and ſerves to expreſs the particular Rights and Municipal Laws eſtabliſh'd by Uſage in particular Provinces, *&c.* after they are reduced into written Laws.

In this Senſe, moſt of the Common Law of *England* is *Lex non ſcripta*; being originally no more than the *Cuſtoms* of our Forefathers. See COMMON *Law*.

Lex non ſcripta, in this Senſe, is uſed in oppoſition to *Statutes* or *Acts of Parliament*; which commence Laws at once. See STATUTE.

Cowel diſtinguiſhes *Cuſtom* from Preſcription, in that the former is more general, and relates to ſeveral Perſons; whereas the latter is uſually confin'd to this or that Man. Five Years time, too, are ſufficient for Preſcription; whereas for *Cuſtom* there are requir'd 100. See PRESCRIPTION.

Cuſtoms are real Things, and are included within their Limits or Territories: They are either *Local*, *i. e.* reſtrain'd to this or that Place, or *General*.

The *Cuſtom of Paris*, ſerves as a Rule for all the other Places of *France*; where they have no Proviſions contrary thereto.

The *Romans* were govern'd by *Cuſtoms*, or unwritten Laws, after the Expulſion of their Kings. See CIVIL *Law*.

Cæſar obſerves, that the *Gauls* had their *Cuſtoms*, which they conſtantly retain'd; and that it was impoſſible for the *Romans* to govern 'em by any other Laws: So that it was only the Provinces bordering on *Italy* that receiv'd the *Roman* Laws.

CUSTOMS, in Commerce, the Dues, Duties, or Tolls, paid by Merchants to the King, for carrying out, and bringing in of Merchandizes. See EXPORTATION, and IMPORTATION.

The *Cuſtoms* of Goods exported and imported, throughout *England*, amount yearly to 1300000 Pounds; whereof thoſe of the Port of *London* make a third part. See COMMERCE.

The *Cuſtoms* in *England* are very numerous, and very high; beyond what any other trading Nation knows: The principal are Duties of *Tunnage* and *Poundage*, which are very antient, being the only ones in uſe before the Time of King *Charles* II. But that Prince, and his Succeſſors, have introduc'd divers others: At preſent, the *Cuſtoms* on Liquors are, *Tunnage*, the *Additional* Duty, the Duty of *Exciſe*, *Coinage*, Duty of the *old Impoſition*, Duty of the *additional Impoſition*, Duty of *Orphans Money*, Duty on *French Wines*, *New Subſidy*, $\frac{1}{3}$ and $\frac{2}{3}$ of *Subſidies*.

For other Merchandizes, the Duties are, *Poundage*, the *additional* Duty on Silks and Linens, *Exciſe* of the ſame Year, on *foreign* Species, *new Impoſition* of Poundage, another of $\frac{4}{5}$; a Duty of 25 *per Cent.* on *French* Commodities; the *new Subſidy* of Poundage, in 1697; an *additional Subſidy* of $\frac{2}{3}$ of Poundage, in 1703; a third in 1704; a Duty on *Fiſh Oils*, another on *Leather*, another on *Paper*, *Soap*, &c. *See theſe deſcrib'd more at large under the Article* DUTY.

CUSTOM-*Houſe*, an Office eſtabliſh'd on the Frontiers of a State, or in ſome chief City, for the Receit of the *Cuſtoms* and Duties of Importation and Exportation; impoſed on Merchandizes, by the Authority of the Prince, and regulated by Tariffs, or Books of Rates. See CUSTOMS, and DUTIES.

There are ſeveral *Cuſtom-houſes* in the ſeveral Ports of *England*: The moſt conſiderable is that of *London*.

It is under the Direction of ſeven Commiſſioners appointed by Patent; who have the Charge and Management of all the *Cuſtoms* (the Petty-Farms alone excepted) in all the Ports of *England*. See COMMISSIONER.

Other Officers are, a *Secretary*, *Sollicitor*, *Receiver-General*, *Comptroller* of the Iſſues and Payments of the Receiver-General; *Comptroller-General*; *Inſpector* of the Out-Port Collectors Accompts; *Inſpector-General* of the Exports and Imports; *Regiſter-General* of all Ships of *Great-Britain*; *Surveyor-General*; *Surveyor* of the Out-Ports, and *Regiſter* of the Seizures; all holding their Places by Patents: with other inferior Officers, appointed by Warrant from the Lord High Treaſurer.

CUSTOMARY *Tenants*, *Cuſtumarii*, *vel Tenentes per conſuetudinem*; are ſuch Tenants as hold by the *Cuſtom* of the Manor as their ſpecial Evidence. See MANOR.

Theſe were antiently Bondmen, or thoſe that held *Tenura Bondagii.—Et omnes illi qui tenuerint in Bondagii tenura, ſolebant vocari* Cuſtumarii. *MS. de Conſuetud. Man. de* Sutton Colfield, *de anno* 3 Edw. II.

CUSTOS *Brevium*, a Clerk, belonging to the Court of Common Pleas; whoſe Office is to receive, and keep all the Writs, and put 'em upon Files; every Return by it ſelf; and at the End of every Term to receive of the Prothonotaries all the Records of the *Niſi prius*, call'd the *Poſtea*. See WRIT, and POSTEA.

The Writs are firſt brought in by the *Clerks of Aſſize* of every County to the Prothonotary who enter'd the Iſſue in that Matter, to enter Judgment. Four Days after the Return, the Prothonotary enters the Verdict, and Judgment thereupon, into the Rolls of the Court; and then delivers them over to the *Cuſtos Brevium*.

He alſo makes Entry of the Writs of Covenant, and the Concord upon every Fine; and makes Copies and Exemplifications of all Writs and Records in his Office, and of all Fines levied: The Fines, when engroſſed, are divided between the *Cuſtos Brevium* and *Chirographer*; the former keeping the Writ of Covenant and the Note, the latter the Concord, and Foot of the Fine. See CHIROGRAPHER.

In the Court of the King's-Bench, there is likewiſe a *Cuſtos Brevium & Rotulorum*, who fileth ſuch Writs as are there uſed to be filed, and all Warrants of Attorney; and tranſcribes or makes out Records of *Niſi prius*, &c.

CUSTOS *Placitorum Coronæ*, in *Bracton*, ſeems to be the ſame with him now call'd *Cuſtos Rotulorum*. See CUSTOS *Rotulorum*.

CUSTOS *Rotulorum*, is he that hath the Cuſtody of the Rolls, or Records of the Seſſions of Peace; and ſome ſay, of the Commiſſions of Peace it ſelf. See PEACE.

He

He is always a Juſtice of Peace, and *Quorum*, in the County where he hath his Office; and by his Office is rather a Miniſter than a Judge. Becauſe the Commiſſion of the Peace, by expreſs Words, lays this ſpecial Charge upon him, *Quod ad dies & loca prædicta, brevia, præcepta, proceſſus, & judicamenta prædicta coram te & dictis ſociis tuis venire facias.*

Custos *Spiritualium*, is he who exerciſeth Spiritual or Eccleſiaſtical Juriſdiction in any Dioceſe, during the Vacancy of the See. See Diocese.

This, by the Canon Law, belongs to the Dean and Chapter; but in *England*, to the Archbiſhop of the Province, by Preſcription: Tho, divers Deans and Chapters do challenge it by antient Charters, from Kings of this Land.

Custos *Temporalium*, is the Perſon to whoſe Cuſtody a vacant See was committed by the King, as ſupreme Lord; who, as a Steward of the Goods and Profits, was to give an account to the Eſcheator, and he into the Exchequer.

His Truſt continued till the Vacancy was ſupply'd by a Succeſſor, who obtained the King's Writ *de Reſtitutione Temporalium*; which was commonly after *Conſecration*, but ſometimes before.

In the Canon Law, we meet with a *Cuſtodi nos*, *i. e.* a Confidentiary, or Incumbent of a Benefice, who borrows his Name of ſome other, to collect the Fruits thereof, and is to make a Reſignation whenever demanded.

CUT *a Feather*, in the Sea Language, is when a well-bow'd Ship ſo ſwiftly preſſes the Water, that it ſeems before her.——To *Cut the Sail*, is to unfurl it, and let it fall down.

Cut-*Water*, the Sharpneſs of a Ship, which is under the Beak-head.

CUTANEOUS, ſomething that concerns the Skin; whether in the way of Diſtemper, or Remedy. See Cutis.

Thus, we ſay, *Cutaneous* Eruptions; the Itch is a *Cutaneous* Diſeaſe.

The Word is form'd of the Latin *Cutis*, Skin.

CUTICULA, *Cuticle*, in Anatomy, a thin pellucid Membrane, void of Senſe; ſerving as a Cover to the *Cutis* or Skin. See Cutis.

The *Cuticula* is that firſt and outermoſt Covering of the Body, call'd alſo *Epidermis*, but more commonly the *Scarf-Skin*; or that ſoft Tegument which riſes in a Bliſter upon a Burn, or the Application of a Cautery.

It ſticks cloſe to the Surface of the Cutis, or true Skin, to which it is alſo tied by the Veſſels that nouriſh it; tho theſe are ſo ſmall as not to be ſeen.

When examin'd by a Microſcope, it appears to conſiſt of ſeveral Lays of exceeding ſmall Scales, which cover one another, more or leſs, according to its different thickneſs, in the ſeveral Parts of the Body; and in the Lips, where the Scales appear plaineſt becauſe the Skin is thinneſt, they do little more than barely touch.

Theſe Scales are either the excretory Ducts of the Glands of the Cutis; as is the Caſe apparently in Fiſhes: or elſe the Glands have their Tubes, opening between the Scales. See Milliary *Gland*.

Leewenhoeck reckons, that in one *cuticular* Scale there may be 500 excretory Ducts; and that a Grain of Sand will cover 250 Scales: ſo that one Grain of Sand will cover 102500 Pores or Orifices, thro' which we daily perſpire. See Perspiration, and Pore.

Yet, notwithſtanding the exceeding Poroſity of the *Cuticula*, it obſtructs a great Part of the ſerous Humours which would otherwiſe be evacuated by the Glands of the *Cutis*; as is evident from that plentiful Diſcharge conſequent on the Application of a Bliſter, or other Accident, whereby the *Cuticula* is remov'd, and the Cutis bared. See Vesicatory.

The Scales are often glu'd together by the groſſer Parts of our inſenſible Tranſpiration hardening upon 'em by the heat of the Body, which carries off the more volatile Particles; and in this conſiſts that Indiſpoſition we popularly call a *Cold*.

The Humour which is thenceforward ſeparated by the Glands of the Skin, being pent in between the Scales, cauſeth frequent itching; and where the Matter has been long pent up, ſmall Pimples, and other Foulneſſes: for removing of which, Nature directs to thoſe wholeſom Remedies of frequent rubbing, waſhing, or bathing. See Leprosy.

Some imagine the *Cuticle* form'd from the groſſer Parts of the excrementitious ſerous Humour, eliminated thro' the Pores of the Cutis, and condens'd on the Surface; like the Pellicle which appears upon Evaporation on the Surface of the Serum of the Blood: But *Leewenhoeck*, with more probability, takes it to be from an Expanſion of the Excretory Ducts of the Glands of the Skin.

Its uſe is to defend the Nerves of the *Cutis*, which are the Origin of the Senſe of Feeling, from the Injuries of rough and hard Bodies, as well as the Air: for either of thoſe would make too exquiſite and painful an Impreſſion on the naked Nerves; or the Air would dry them, ſo as that they would be leſs ſuſceptible of the nicer Touches of Pleaſure. See Feeling.

Riolanus, and ſeveral others, maintain that the *Cuticula* of Women has no Pores: *Molinette* argues the contrary from their Sweating; but maintains, withal, that this is true of Dogs and Cats, which never ſweat, how much ſoever fatigued. See Sweat.

CUTIS, in Anatomy, *the Skin*; a Reticular Plexus, or Body of Veſſels, immediately under the *Cuticle*, or Scarf-Skin. See Skin, and Cuticula.

The Veſicles of the *Cutis* contain a mucous Liquor; from the Tincture of which, *Malpighi*, and others, take the Colour of the Skin to be derived; founded on this, that the *Cutis*, as well as *Cuticle* of Blacks is white, and the Blood red, *&c.* and that the only thing they have peculiar in this Part, is the Colour of this Liquor. See Negro.

The *Cutis* conſiſts of Fibres of its own; or, according to *Steno*, is form'd out of the Productions of the Tendons of the ſubjacent Parts: which terminate in an infinite Number of pyramidal *Papillæ*, interwoven with innumerable nervous Fibres, and other Veſicles, forming what we call a *Parenchyma*. See Parenchyma.

'Tis by means hereof that the *Cutis* becomes the Organ of Feeling. See Pyramidales *Papillæ*.

The *Cutis* is generally connected to the ſubjacent Parts by the *Membrana Adipoſa*, and its proper Veſſels, the Veins, Arteries, Nerves, *&c.* Its Uſe, is to wrap up and cover the whole Body; to be a general Emunctory for the Matter of Perſpiration; and to be the Organ of Feeling. See Perspiration, Feeling, *&c.*

The Diſeaſes of the *Cuticula* and *Cutis*, are the *Itch*, *Leproſy*, *Small-Pox*, *Meaſles*, *Scarlet Fever*, and *Eryſipelatous Inflammations*. See Itch, Pox, Leprosy, *&c.*

CUTTER *of the Tallies*, an Officer of the Exchequer, who provides Wood for the Tallies, and cuts the Sum paid upon them. See Tally.

CUTTING, a Term us'd in various Senſes, and various Arts; in the general, it implies a Diviſion or Separation.

Cutting is us'd in Heraldry, where the Shield is divided into two equal Parts, from right to left, parallel to the Horizon, or in the Feſſe-way. See Coupee.

The Word is alſo applied to the Honourable Ordinaries, and even to Animals, and Moveables, when they are divided equally the ſame way; ſo, however, as that one Moiety is Colour, the other Metal. The Ordinaries are alſo ſaid to be *cut*, *couped*, when they come full to the Extremities of the Shield.

Cutting, *Lithotomy*, in Chirurgery, the Operation of extracting the Stone out of the Bladder. See Stone.

It appears, that *Cutting* was in uſe for the Stone, even in the Time of *Hippocrates*; tho we are perfectly in the dark as to the manner in which they perform'd it: It was, however, wholly diſus'd in the after-Ages; inſomuch, that in the beginning of the XVIth Century, there was no body durſt practiſe it. The Faculty of Medicine at *Paris* were oblig'd to addreſs themſelves to the Parliament, to obtain Leave to make a Trial on a Criminal condemn'd to Death, who had the Stone in the Bladder: the Operation ſucceeding, the Practice became popular.

There are three principal Ways of performing the Operation; the *Apparatus minor*, *Apparatus major*, and *Apparatus altus*; or the *low*, *lateral*, and *high Operations*. *The Method of performing each, ſee under the Article* Lithotomy.

Cutting-*Glaſs*, in Chirurgery. See Cupping-*Glaſs*.

Cutting, in Coinage. When the *Laminæ*, or Plates of the Metal, be it Gold, Silver, or Copper, are brought to the thickneſs of the Species to be coin'd, pieces are *cut* out, of the Thickneſs, and nearly of the Weight of the intended Coin; which are now call'd *Planchets*, till the King's Image have been ſtamp'd on 'em. See Coining.

The Inſtrument wherewith they *cut*, conſiſts of two pieces of Steel, very ſharp, and placed over one another; the lower a little hollow, repreſenting a Mortar; the other a Peſtel.

The Metal being put between the two, is *cut* out in the manner deſcrib'd.

Note, Medallions, where the Relievo is to be great, are not *cut*, but caſt, or moulded. See Medal.

Cutting, in the Manage, is when the Horſe's Feet *interfere*; or when with the Shoe of one Foot he beats off the Skin from the paſtern Joint of another Foot. See Interfering.

This is more frequent in the hind Feet than the fore: The Cauſes are either Wearineſs, Weakneſs in the Reins, not knowing how to go, or ill ſhoeing.

Cutting, in Painting, the laying one ſtrong lively Colour over another, without any Shade or Softening. See Colouring.

The *Cutting* of Colours has always a diſagreeable Effect.

Cutting *in Wood*, a particular Kind of Sculpture, or Engraving; denominated from the Matter wherein it is employ'd. See Engraving.

It is us'd for various Purpoſes; as for initial or figured Letters, Head and Tail-pieces of Books; and even for

Schemes and other Figures; to save the Expences of engraving on Copper: and for Prints, and Stamps, for Paper, Callicoes, Linens, &c. See PRINTING.

The Invention of *Cutting in Wood*, as well as that in Copper, is ascribed to a Goldsmith of *Florence*; but 'tis to *Albert Durer*, and *Lucas*, they are both owing for their Perfection.

One *Hugo de Carpi* invented a manner of *Cutting* in Wood, by means whereof, the Prints appear'd as if painted in Clair-Obscure: In order to this, he made three Kinds of Stamps for the same Design; which were drawn, after one another, thro' the Press for the same Print: They were so conducted, as that one serv'd for the grand Lights, a second for the Demi-Teints, and a third for the Outlines, and the deep Shadows.

The Art of *Cutting in Wood*, was certainly carried to a very great Pitch about 150 Years ago; and might even vie, for Beauty and Justness, with that of engraving in Copper: At present 'tis in a low Condition, as having been long neglected, and the Application of Artists wholly employ'd on Copper, as the more easy and promising Province: Not but that wooden *Cuts* have the Advantage of those in Copper on many Accounts; chiefly for Figures and Devices in Books; as being printed at the same Time, and in the same Press as the Letters; whereas, for the other, there is requir'd a particular Impression.

The *Cutters in Wood* begin with preparing a Plank or Block, of the size and thickness requir'd, and ever even and smooth on the Side to be *cut*: for this, they usually take Pear-Tree, or Box; tho the latter is the best, as being the closest, and least liable to be worm-eaten.

On this Block they make their Design with a Pen, or Pencil, just as they would have it printed. Those who can't make their own Design, as many there are cannot, make use of a Design furnish'd 'em by another; fastening it upon the Block with Paste of Flower and Water, with a little Vinegar; the Strokes or Lines turn'd towards the Wood.

When the Paper is dry, they wash it gently over with a Sponge dip'd in Water; which done, they take off the Paper by little and little, still rubbing it a little first, with the Tip of the Finger; till at length there be nothing left on the Block, but the Strokes of Ink that form the Design, which mark out so much of the Block as is to be spared, or left standing.

The rest they *cut* off, and take away very curiously with the Points of fine sharp Knives, or little Chissels, or Gravers, according to the Bigness or Delicacy of the Work; for they need no other Instruments.

CUTTINGS, or *Slips*, in Gardening, the Branches or Sprigs of Trees, or Plants, *cut* or slipp'd off to set again; which is done in any moist, fine Earth. See PLANTING.

The best Season is from *August* to *April*; but Care is to be taken, when 'tis done, the Sap be not too much in the Top, lest it die ere that Part in the Earth have Root enough to support it: nor yet must it be too dry, or scanty; the Sap in the Branches assisting it to take Root.

In providing the *Cuttings*, such Branches as have Joints, Knots, or Burrs, are to be *cut* off two or three Branches beneath them, and the Leaves to be strip'd off so far as they are set in the Earth. Small Top-Branches, of two or three Years growth, are fittest for the Operation. See MANURING, GARDENING.

CYCLE, in Chronology, *Circle*; a certain Period, or Series of Numbers, proceeding orderly from first to last, and recurring again from last to first; successively, and without interruption. See PERIOD.

The Origin of *Cycles* was thus: The apparent Revolution of the Sun round the Earth, has been divided, arbitrarily, into 24 Hours; the Basis or Foundation of all our Mensuration of Time. Civil Use knows none but Hours; or rather, Multiples of Hours, as Days, and Years. But neither the annual Motion of the Sun, nor that of the other Heavenly Bodies, can be measur'd exactly, and without any Remainder, by Hours, or their multiples. That of the Sun, *v. g.* is 365 Days, 5 Hours, 49 Minutes, nearly; that of the Moon 29 Days, 12 Hours, 44 Minutes.

Hence, to swallow up these Fractions in whole Numbers, and yet in Numbers which only express Days, and Years; *Cycles* have been invented: which comprehending several Revolutions of the same Body, replace it, after a certain Number of Years, in the same Points of the Heaven, whence it first departed; or, which is the same thing, in the same Place of the Civil Calendar. See CALENDAR.

Such is the famous *Cycle of 19 Years*, call'd also the

CYCLE *of the Moon*, or *Lunar* CYCLE, a Period of 19 Lunar Years, and seven Intercalary Months; equivalent to 19 Solar Years: in which Time, the New and Full Moons are supposed to return to the same Day of the *Julian* Year. See MOON.

This is also called the *Metonic Period*, from its Inventor *Meton*, the *Athenian*; and the *Golden Number*: tho, properly, the Golden Number is the particular Number which shews the Year of the Lunar *Cycle*, any given Year is in.

This *Cycle* of the Moon only holds true for 312 Years: For, tho the New Moons do return to the same Day after 19 Years; yet not to the same time of the Day, but near an Hour and a half sooner: which Error, in 312 Years, amounts to an entire Day.

Yet, those employ'd in reforming the Calendar, went on a Supposition of the Lunations returning precisely from 19 Years to 19 Years, for ever. See GREGORIAN.

The Use of this *Cycle* in the antient Calendar, is to shew the New Moon of each Year, and the Time of Easter. See EASTER.

In the new one, it only serves to find the Epacts; which shew, in either Calendar, that the New Moons fall 11 Days too late. See EPACT.

As the Orientals began the Use of this *Cycle* at the Time of the Council of *Nice*; they assumed, for the first Year of the *Cycle*, the Paschal New Moon to fall on the 13th of *March*: On which foot, the Lunar *Cycle* 3, fell on the 1st of *January*, in the third Year.

The Occidentals, on the contrary, put the Number 1 to the 1st of *January*, which occasion'd a considerable Difference in the Time of *Easter*: Hence, *Dionysius Exiguus*, upon framing a new Calendar, persuaded the Christians of the *West* to salve the Difference, and come into the Practice of the Church of *Alexandria*.

To find the Year of the Lunar CYCLE, is to find the *Golden Number*. See GOLDEN *Number*.

CYCLE *of Indictions*, is a Series of 15 Years, returning constantly around, like the other *Cycles*; and commencing from the third Year before Christ. See INDICTION.

When this *Cycle* of Indictions was first set on foot among the *Romans*, and for what End; is much controverted among Chronologers. *Petavius* leaves it as a thing not to be ascertain'd. The most probable Opinion is, that it was receiv'd about the Year 312, after the Time of *Constantine*.

To find the Cycle *of Indiction for any given Year*; add 3 to the given Year, and divide the Sum by 15, the Remainder is the *Cycle of Indiction*.

If there be no Remainder the *Cycle* is 15.

CYCLE *of the Sun*, or *Solar* CYCLE, a Revolution of 28 Years; beginning with 1, and ending with 28; which elapsed, the Dominical or Sunday-Letters, and those that express the other Feasts, &c. return into their former Place, and proceed in the same Order as before. See DOMINICAL, &c.

'Tis called *Solar Cycle*, not with regard to the Sun's Course, which has nothing to do herein; but from Sunday, antiently call'd *Dies Solis*, *the Day of the Sun*: in regard, 'tis the Dominical Letter is principally sought for from this Revolution; the Dominical Letters, which are the first in the Alphabet, having been substituted in lieu of the Nundinal Letters of the *Romans*.

The Reformation of the Calendar under Pope *Gregory*, occasion'd a considerable Alteration of the *Cycle*: In the *Gregorian* Calendar, the *Solar Cycle* is not constant and perpetual; in regard, every fourth Secular Year is Common; whereas, in the *Julian* 'tis Bissextile. The Epocha, or Beginning of the *Solar Cycle*, both *Julian* and *Gregorian*, is the 9th Year before Christ.

To find the Cycle *of the Sun for any given Year*; add 9 to the Number given, and divide the Sum by 28; the Number remaining will be the Number of the *Cycle*, and the Quotient the Number of Revolutions since Christ.

If there be no Remainder, it will be the 28th, or last Year of the *Cycle*.

CYCLE *of the Sun in the* Julian *Year.*

1	G	F	5	B	A	9	D	C	13	F	E	17	A	G	21	C	B	25	E	D
2		E	6		G	10		B	14		D	18		F	22		A	26		C
3		D	7		F	11		A	15		C	19		E	23		G	27		B
4		C	8		E	12		G	16		B	20		D	24		F	28		A

CYCLE *of the Sun from the* Gregorian *Year* 1700, *to the Year* 1800.

1	D	C	5	F	E	9	A	G	12	C	B	17	E	D	21	G	F	25	B	A
2		B	6		D	10		F	14		A	18		C	22		E	26		G
3		A	7		C	11		E	15		G	19		B	23		D	27		F
4		G	8		B	12		D	16		F	20		A	24		C	28		E

CYCLE, it may be observ'd, is not only us'd in the general, for all the Numbers that compose the Series; but for each Number in particular: Thus, we compute, that the ordinary Epocha from the Birth of Jesus Christ, had the *Solar Cycle* 10; the *Lunar Cycle*, or the Golden Number 2; the Dominical Letter B, and the *Cycle of Indiction* 4.

CYCLISCUS, from κύκλος, *Circulus*; an Instrument in form of an Half-Moon; used by the Surgeons to scrape away Rottenness.

CYCLOID,

CYCLOID, in Geometry, one of the Mechanical, or, as others term 'em, the Tranſcendental Curves; called alſo the *Trochoid*. See CURVE, and TROCHOID.

It is deſcrib'd by the Motion of a Point A, (Tab. *Analyſis*, Fig. 55.) in the Periphery of a Circle; while the Circle makes a Revolution along the right Line A P.

Hence, *the Properties of this Curve, viz.* that the right Line A E is equal to the Periphery of the Circle A B C D; and A C to the Semi-periphery; and in any Situation of the generating Circle, the right Line A *d* is equal to the Arch D *d*.——Again, *a d* being parallel to A *c*; A *d* is equal to the Arch of the generating Circle *d* F.——Further, the whole length of the *Cycloid* is four times that of the Diameter of the generating Circle; and the *Cycloidal* Space comprehended between the Curve and the Subtenſe A E, triple the Area of the generating Circle.——Laſtly, any Part eſtimated from the Vertex, as F I, is every where double the Chord of the Circle F *b*; and the Tangent thereof G I, perpetually parallel to the ſame Chord F *b*.

The Geneſis of the CYCLOID, may be conceiv'd by imagining a Nail in the Circumference of a Wheel; the Line which the Nail deſcribes in the Area, while the Wheel revolves in a right Line, is the *Cycloid*.

The *Cycloid* is reputed a modern Curve, and its Invention aſcrib'd by ſome to *Merſenne*; by others to *Galileo*: but Dr. *Wallis* ſhews it of an older ſtanding, and to have been known to *Bovillus*, about the Year 1500; and even conſider'd by Cardinal *Cuſanus* much earlier, *viz.* before the Year 1451.

M. *Huygens* has demonſtrated, that from whatever Point, or Height, a heavy Body, oſcillating on a fix'd Centre, (*v.g.* a Pendulum) begins to deſcend; while it continues to move in a *Cycloid*, the Times of its Falls, or Oſcillations, will be equal to each other.

This Property M. *Fontenelle* ſtates thus: The Nature of the *Cycloid* is ſuch, that, if a Body which deſcribes it, fall from a greater height, and by that means acquire a certain Augmentation of Velocity, as in *Galileo*'s Theory; the greater *Cycloidal* Arch which it deſcribes, takes up preciſely that Exceſs of Velocity. So that the Body does not deſcribe it, either ſooner for its being accelerated, or later for having a greater Space to move: And hence ariſes an Equality in Time, notwithſtanding the Inequality of Arches.

On this Foundation it is, that the Pendulum-Clock is built: on the Subject whereof, the ſame M. *Huygens* has wrote a large Volume, under the Title of *Horologium Oſcillatorium*. See PENDULUM; ſee alſo OSCILLATION.

CYCLOIDAL *Space*, the Space contained between the *Cycloid*, and the Subtenſe thereof. See CYCLOID.

CYCLOMETRY, the Art of meaſuring Cycles, or Circles. See CYCLE, and CIRCLE.

CYCLOPÆDIA, the Circle, or Compaſs of Arts and Sciences; more ordinarily call'd *Encyclopædia*. See ENCYCLOPÆDIA.

CYGNUS, *the Swan*, in Aſtronomy, a Conſtellation of the Northern Hemiſphere. See CONSTELLATION.

Stars in the Conſtellation *Cygnus*, in *Ptolemy*'s Catalogue are 17; in *Tycho*'s 19; in the *Britannic Catalogue* 107. The Order, Names, Longitudes, Latitudes, Magnitudes, &c. whereof, are as follow.

Stars in the Conſtellation CYGNUS.

Names and Situations of the Stars.	Signs.	Longitude. ° ′ ″	Latitude. ° ′ ″	Magn.
Preced. of two towards the Harp	♍	20 54 46	66 13 6	5
Subſeq. and more North.		25 41 28	68 49 57	6
In the Extremity of the North Wing	♒	10 38 18	73 50 11	4
That preced. the Bill towards the So.	♍	23 47 46	47 44 20	5
Preced. the Bill towards the South		25 18 47	50 57 30	5
5				
		24 16 45	46 25 40	6
		28 51 20	57 20 44	6
That below the Bill		25 12 34	45 54 20	4
In the Bill		25 16 24	45 59 22	6
10		26 55 37	49 0 31	3 4
	♒	13 40 9	72 10 51	6
	♒	29 55 52	55 14 20	6
Middle of 3 in the North Wing	♍	13 42 43	71 28 38	4
In the Head.		2 38 16	57 23 36	6
15		0 36 19	50 39 38	5
South of 3 in the North Wing		14 22 42	69 37 56	4
		7 54 44	62 42 5	6
		0 18 38	46 10 32	6
		5 50 43	57 15 9	6
Preced. in the Inſide of the No. Wing		17 1 8	69 30 50	6
20				
Preced. in the Neck	♒	4 36 37	53 42 33	5
In the Angle of the North Wing		11 57 17	64 27 14	3 4
		1 28 49	42 41 50	4 5
		8 53 22	58 7 12	6
25		2 43 29	43 58 26	4 5
Names and Situations of the Stars.	Signs.	Longitude. ° ′ ″	Latitude. ° ′ ″	Magn.
North of the middle Stars in the Wing		24 13 58	70 53 46	5 6
In the middle of the Neck		8 37 28	54 18 48	4
		10 31 20	57 31 43	6
		4 7 19	42 40 56	5
		25 11 36	74 10 15	6 7
30				
South of the middle Stars in the Wing		25 9 41	69 59 55	5
		6 31 37	47 1 45	4 5
		10 58 10	55 54 29	6
Laſt of thoſe in the North Wing		5 39 1	44 15 50	5
35		23 44 12	67 33 40	6
Preced. in the Riſe of the Neck		6 36 40	42 41 12	4 5
		12 30 29	54 28 16	5
Middle of 3 in the Riſe of the Neck		9 3 51	45 34 54	6 5
		13 57 43	55 1 40	5
40		9 24 14	45 24 28	6
		9 19 24	45 4 48	5 6
		10 59 28	47 2 8	5 6
Subſeq. in the Riſe of the Neck		9 7 46	42 0 27	5
		15 34 43	54 36 33	6
45		11 3 12	46 5 20	4 5
Preced. in the Foot, which is double		9 58 47	43 1 53	5
		23 46 19	63 43 29	5
Subſeq. in the ſame Foot		23 47 55	63 38 3	4
A new one of the Breaſt, *Anno* 1600		25 31 58	64 18 53	5 6
50		17 29 12	55 29 20	6
South of two under the new one		15 44 13	52 36 15	6
North of the ſame		17 2 13	54 33 16	6
In the Breaſt (of the N. Wing		11 26 23	42 26 36	6
Middle of 3 *Informes* preced. the Angle		20 32 51	57 9 20	3
55		15 42 22	49 36 33	4
South of the ſame		20 51 58	55 4 46	6
		16 24 20	47 28 53	4
		20 0 57	53 7 6	4
	♓	1 22 17	64 41 46	5 6
60	♒	20 57 9	53 23 53	6
Middle and brighter agſt. the No. Knee	♓	1 46 7	64 3 51	5
Subſeq. at the Knee		2 31 4	64 10 7	5 6
North of thoſe preced. the Angle	♒	20 37 18	51 38 16	5
(gle near the Tropic		16 10 4	42 45 11	6
Preced. of the *Informes* in the Trian-		16 42 41	43 13 32	5 6
65				
South. in that Triangle		19 28 14	47 57 16	6
		16 2 55	40 54 36	5 6
		14 56 59	38 7 7	5
Bright Star in the Tail		20 54 55	48 21 13	6
70	♓	1 1 32	59 56 37	2
Subſeq. of the ſaid Triangle	♒	18 22 34	41 30 54	6
Inform. under the Angle of the S. Wing	♓	7 17 32	64 4 18	6 7
In the Angle or Elbow of the So. Wing	♒	21 21 29	46 30 26	5
		23 22 52	49 26 21	3
In the middle of the ſame Wing		25 26 47	51 38 37	4
75				
South of thoſe preced. the Extreme	♓	4 8 54	49 57 10	5
of the 2 *Informes* of the S. Wing	♒	21 18 12	42 37 9	6
(Wing	♓	2 22 56	58 5 31	6 5
North of thoſe prec. the Extrem. of the	♓	3 39 19	58 5 13	6
80	♒	22 45 37	43 13 58	5
In the South Foot (Tail	♒	20 45 4	37 39 42	6
Foremoſt of 3 in the North Part of the	♓	1 51 21	54 56 25	4
South of the ſame		8 49 9	60 6 19	5 6
		7 42 10	58 50 19	6 7
85		1 57 3	51 50 35	5
Againſt the South Knee		6 32 3	56 36 5	4
Subſeq. in the North Part of the Knee		10 50 42	59 33 35	6 5
In the Extrem. of the South Wing	♒	24 51 36	37 59 50	6
Middle of thoſe in the South Wing		28 44 36	43 43 13	3
90	♓	4 16 38	50 32 40	4
South of 3 in the Wing		2 57 29	47 29 10	5
North of the ſame		6 3 49	51 30 45	4
A ſmall one following the South Knee		10 14 21	55 20 9	6
		6 1 38	48 25 8	6
That under the Extrem. of the S. Wing		1 14 9	40 0 20	6 5
95				
North of 2 in the Extrem. of the Tail		7 1 15	48 34 55	6
		15 39 47	56 25 37	6
South in the Extremity of the Tail		9 59 28	49 7 0	6
		15 53 18	55 12 21	4 5
100		12 1 23	50 32 2	6
		15 15 52	52 39 30	6
		13 31 55	50 25 21	6
		13 56 49	50 34 26	6
Under the South Wing, towards		6 8 0	39 32 16	3 4
the Foot of *Pegaſus*		12 3 43	48 3 34	6
105				
N. of the *Informes* following the Tail		24 1 45	58 52 37	4 5
South of thoſe following the Tail	♓	23 17 18	57 12 6	5

CYLINDER, in Geometry, (from the *Greek* κύλινδος, a *round long Stone*;) a ſolid Body, contain'd under three Surfaces; ſuppos'd to be generated by the Rotation of a Parallelogram, as C B E F, (Tab. *Geometry*, Fig. 56.) about one of its Sides, C F. See SOLID.

If the generating Parallelogram be Rectangular, as C B E F, the *Cylinder* it produces will be a *right Cylinder*, *i. e.* a *Cylinder* whoſe Axis is perpendicular to its Baſe.

If the Parallelogram be a *Rhombus*, or *Rhomboides*, the *Cylinder* will be *oblique*, or *ſcalenous*.

The Surface of a *right Cylinder*, excluſive of its Baſes, is demonſtrated to be equal to a Rectangle contain'd under the Periphery, and the Altitude of the *Cylinder*.

The Periphery, therefore, of the Baſe, and thence the Baſe it ſelf, being found, and multiply'd by two, and the Product added to the Rectangle of the Height, and Periphery of the *Cylinder*; the Sum will be the Area or Superficies of the *Cylinder*: multiply this by the Area of the Baſe; and the Product will be the Solidity of the *Cylinder*.

For it is demonſtrated, that a Circle is equal to a Triangle, whoſe Baſe is equal to the Periphery, and Height, to the Radius; and alſo, that a *Cylinder* is equal to a Triangular Priſm, having the ſame Baſe and Altitude with it ſelf: Its Solidity, therefore, muſt be had by multiplying the Superficies into the Baſe. See PRISM.

Again, ſince a Cone may be eſteem'd an infinite-angular Pyramid; and a *Cylinder* an infinite-angular Priſm: a Cone is one third Part of a *Cylinder*, upon an equal Baſe, and of the ſame height. See CONE.

Further, a *Cylinder* is to a Sphere of the ſame Baſe and Altitude as 3 to 2. See SPHERE.

Laſtly, It being demonſtrated in Mechanicks, that every Figure, whether Superficial or Solid, generated, either by the Motion of a Line, or of a Figure; is equal to the *Factum* of the generative Magnitude into the Way of its Centre of Gravity, or the Line its Centre of Gravity deſcribes: Hence, if the Rectangle A B C D, (Tab. *Mechanicks*, Fig. 43.) revolve about its Axis A D, it will deſcribe a *Cylinder*, and its Side B C the Surface of the *Cylinder*. But the Centre of Gravity of the right Line B C, is in the Middle F; and the Centre of Gravity of the generating Plane in the Middle G, of the right Line E F. The Way of this, therefore, is the Periphery of a Circle deſcrib'd by the Radius E G; and of that, the Periphery of a Circle deſcrib'd by E F. The Superficies, therefore, of the *Cylinder*, is the *Factum* of the Altitude B C, into the Periphery of the Circle deſcrib'd by the Radius E F, *i. e.* into the Baſe: But the Solidity of the *Cylinder*, is the *Factum* of the generating Rectangle A B C D, into the Periphery of the Circle deſcrib'd by the Radius E G; which is Subduple of E F, or the Semidiameter of the *Cylinder*.

Suppoſe, *v. g.* the Altitude of the deſcribing Plane, and therefore of the *Cylinder*, B C $= a$, the Semidiameter of the Baſe D C $= r$; then will E G $= \frac{1}{2} r$; and ſuppoſing the Ratio of the Semidiameter to the Periphery, $= 1 : m$; the Periphery deſcrib'd by the Radius, $\frac{1}{2} r$ will be equal to mr. Therefore, multiplying $\frac{1}{2} mr$ into the Area of the Rectangle A C $= ar$; the Solidity of the *Cylinder* $= \frac{1}{2} mar^2$: But $\frac{1}{2} mar^2 = \frac{1}{2} r.mr.a$, and $\frac{1}{2} r.mr$, the Area of the Circle deſcrib'd by the Radius D G. The Solidity of the *Cylinder*, therefore, is equal to the *Factum* of the Baſe, and the Altitude.

For the Ratio of CYLINDERS; as the *Radii* of all *Cylinders*, Cones, &c. are in a Ratio compos'd of their Baſes, and Altitudes: Hence, if their Baſes be equal, they will be in the Ratio of their Heights; if their Altitudes be equal, in the Ratio of their Baſes.

Hence, alſo, the Baſes of *Cylinders* and Cones being Circles; and Circles being in a duplicate Ratio of their Diameters; all *Cylinders* and Cones are in a Ratio compounded of the direct Ratio of the Altitudes, and the duplicate one of their Diameters: and, if they be equally high, as the Squares of the Diameters.

Hence, again, if in *Cylinders* the Altitude be equal to the Diameter of the Baſes, they will be in a triplicate Ratio of the Diameters of the Baſe. All *Cylinders*, Cones, &c. are in a triplicate Ratio of their homologous Sides; as alſo of their Altitudes.

Again, equal *Cylinders*, Cones, &c. reciprocate their Baſes and Altitudes.

Laſtly, a *Cylinder* whoſe Altitude is equal to the Diameter of the Baſe, is to the Cube of its Diameter, as 785 to 1000.

To find a Circle equal to the Surface of a given CYLINDER, we have this Theorem: The Surface of a *Cylinder* is equal to a Circle, whoſe Radius is a Mean Proportional between the Diameter and Height of the *Cylinder*. See SUPERFICIES.

The Diameter of a Sphere, and Altitude of a CYLINDER *equal thereto, being given; to find the Diameter of the* Cylinder: The Theorem is; The Square of the Diameter of the Sphere, is to the Square of the Diameter of the *Cylinder*, equal to it, nearly, as triple the Altitude of the *Cylinder*, to duple the Diameter of the Sphere. See SPHERE.

To find a Rete, *or Net, whence a* Cylinder *may be form'd, or wherewith any* Cylinder *may be cover'd.* With the Diameter of the Baſe, deſcribe two Circles; find their Peripheries: and upon a Line equal to the Altitude of the *Cylinder*, form a Rectangle, whoſe other Dimenſion is equal to the found Periphery. Thus may the *Cylinder* requir'd be form'd, or cover'd.

CYLINDER *charged*, in Gunnery, is the Chamber of a great Gun. See ORDNANCE.

CYLINDER *concave*, in Gunnery, is all the *Chace*, or hollow length of a Piece of Ordnance. See ORDNANCE.

CYLINDER *vacant*, in Gunnery, is that Part of the Hollow that remains empty, after the Gun is charg'd. See CANON.

CYLINDROID, in Geometry, a ſolid Body, approaching the Figure of a *Cylinder*; having, *v. g.* its Baſes elliptical, parallel, and equal.

The Word comes from the *Greek* κύλινδρος, *Cylinder*, and εἶδος, *Form*.

CYMA, in Botany, a Term ſignifying the Top of any Plant, or Herb.

CYMA, in Architecture. See CIMA, SIMA, and CYMATIUM.

CYMATIUM, CIMATIUM, or CIMA, in Architecture, (from the *Greek* κυμάτιον, *undula*;) a Member, or Moulding of the Cornice, whoſe Profile is waved, *i. e.* concave a-top, and convex at bottom; frequently alſo call'd *Doucine*, *Gorge*, or *Gula Recta*; eſpecially by the *French*: by the Italians *Goletta*, i. e. *parva Gula*; but more uſually, *Cymatium*, among us; as being the laſt, or uppermoſt Member, *q. d.* the *Cyma*, or Summet of the Corniche. See CORNICHE.

Some write it *Simaiſe*, from *Simus*, *Camus*, flat-nos'd; but this Etymology is unlucky: the Beauty of the Moulding conſiſting in its having its Projecture equal to its Height.

M. *Felibien*, indeed, will not allow this Etymology; contending, that the Moulding is not ſo denominated from its being the uppermoſt Member of the Corniche; but, according to the Sentiment of *Vitruvius*, from its being waved.

This is certain, that *Vitruvius* ſometimes uſes the Word *Unda* for *Cymatium*, and ſometimes *Lyſis*, i. e. *Solution*, *Separation*; in regard, Corniches, where the *Cymaiſes* are found, ſeparate one piece of Architecture from another; as the Pedeſtal from the Column, and the Frieze from the Corniche.

But, withal, it muſt be obſerved, that he does not confine *Cymatium* to the Corniche; but uſes it indifferently for any ſimilar Moulding, wheree'r he meets with it: in which he differs from the moſt accurate among the Moderns.

Felibien makes two Kinds of *Cymatiums*; the one *right*, the other *inverted*: In the firſt, that Part which projects the furtheſt is concave, and is otherwiſe call'd alſo *Gula Recta*, and *Doucine*. See DOUCINE.

In the other, the Part that projects furtheſt is convex, called *Gula Inverſa*, or *Talon*. See TALON.

Our Architects don't uſe to give the Name *Cymatium* to theſe Mouldings, except when found on the Tops of Cornices; but the Workmen apply the Name indifferently, wherever they find 'em.

Palladio diſtinguiſhes the *Cymatium* of the Corniche by the Name *Intavolatum*.

Tuſcan CYMATIUM, conſiſts of an Ovolo, or Quarter-Round. *Philander* makes two *Doric Cymatiums*, whereof this is one: *Baldus* calls this the *Lesbian Aſtragal*.

Doric CYMATIUM, is a Cavetto, or a Cavity leſs than a Semicircle, having its Projecture ſubduple its Height.

Lesbian CYMATIUM, according to *Vitruvius*, is what we otherwiſe call *Talon*, *viz.* a concavo-convex Member, having its Projecture ſubduple its Height. See TALON.

CYMBAL, a Muſical Inſtrument, uſed among the Antients; call'd by the *Greeks* κύμβαλον, and by the Latins *Cymbalum*.

It was of Braſs, like our Kettle-Drums; and ſome think in their Form, but ſmaller, and its Uſe different.

Caſſiodorus, and *Iſidore*, call it *Acetabulum*, the Name of a Cup or Cavity of a Bone wherein another is articulated; and *Xenophon* compares it to a Horſe's Hoof: whence it muſt have been hollow; which appears, too, from the Figure of ſeveral other Things, denominated from it, as a Baſon, Caldron, Goblet, Caſque; and even a Shoe, ſuch as thoſe of *Empedocles*, which were of Braſs.

In effect, the antient *Cymbals* appear to have been very different from our Kettle-Drums, and their Uſe of another Kind: To their exterior Cavity was faſten'd a Handle; whence *Pliny* takes occaſion to compare 'em to the upper Part of the Thigh, *Coxendicibus*; and *Rabban* to Phiols.

They were ſtruck againſt one another, in Cadence, and made a very acute Sound. Their Invention was attributed to *Cybele*; whence their uſe in Feaſts and Sacrifices: Setting

ting aſide this Occaſion, they were ſeldom uſed but by diſſolute and effeminate People.

Mr. *Lampe*, who has wrote expreſly on the Subject, attributes the Invention to the *Curetes*, or Inhabitants of Mount *Ida* in *Crete*: 'Tis certain, theſe, as well as the *Corybantes*, or Guards of the Kings of *Crete*; and thoſe of *Rhodes*, and *Samothracia*, were reputed to excel in the Muſick of the *Cymbal*. See CORYBANTES.

Sylburgius derives the Word κύμβαλον from three ſeveral *Greek* Roots, *viz.* from κυφος, *crooked*; from κυπελον, *Cup*; and from φωνη, *Voice*. *Iſidore* derives it from *cum*, and *ballematica*, an immodeſt Dance, uſed to accompany this Inſtrument. The real Etymology appears to be from κύμβος, *Cavity*.

The *Jews*, too, had their *Cymbals*, which they called צלצלים, or מצלתים; or at leaſt, Inſtruments that the *Greek*, *Latin*, and *Engliſh* Tranſlators render *Cymbals*; for as to their Matter, Form, &c. the Criticks are wholly in the dark.

The Modern *Cymbal* is a paltry Inſtrument, chiefly in uſe among Vagrants, Gypſies, &c. It conſiſts of ſteel Wire, in a triangular Form, whereon are paſs'd five Rings, which are touch'd and ſhifted along the Triangle with an Iron Rod held in the left Hand, while 'tis ſupported in the right by a Ring, to give it the freer Motion.

Durandus ſays, that the Monks us'd the Word *Cymbal* for the Bell hung in the Cloiſter, uſed to call 'em to the Refectory.

CYMBIFORME *Os*, in Anatomy. See NAVICULARE *Os*.

CYNEGETICS, *Cygnetica*, Books treating of the Art of Hunting. *Gratius Faliſcus* has wrote *Cynegetica* with Applauſe.

CYNICS, a Sect of antient Philoſophers, who valu'd themſelves on their Contempt of every thing, eſpecially Riches and State, Arts and Sciences; all excepting Morality.

The Founder of this Sect is ſaid to have been *Antiſthenes*, a Diſciple of *Socrates*; who, after his Maſter's Death, quitting the *Pyreum*, retir'd to *Cynoſarges*, a kind of Academy not far from the Gates of *Athens*.

Hence, ſome will have it, came the Name κυνικὸς, *Cynicus*, *viz.* from *Cynoſarge*. But others, with more probability, derive it from κύνη, *Canis*, becauſe of their Severity and Importunity in reprehending Vice.

Thus, *Ariſtotle* obſerves, οι δ' κυνικοὶ ὅτως ἐκλήθησαν διὰ τὸ παῤῥησιας ποιεῖν, &c. Cynicks *were ſo called, from their free way of rebuking*, &c.

Hence, *Diogenes* the *Cynic* ſaid of himſelf, πονηρὸς δάκνων, *I bite the Evil*; and *Antiſthenes* himſelf was called ἁπλοκύων, *an ingenious and ſincere Dog*: It being the diſtinguiſhing Character of the *Cynics*, to attack and bark at the Ill, and to defend and fawn on the Good.

Arrian praiſes the *cynical* Genius to the Skies: 'A *Cynic*, *ſays he*, is a Meſſenger ſent from *Jupiter*, to over-'look human Affairs;——a publick Doctor, and Tutor of 'Mankind; inſtructs, and chaſtiſes at the ſame time:—— 'An *Æſculapius*; a Lord and King, adorn'd with a Scep-'ter and Diadem,——who governs the People; and this 'voluntarily, without trembling, without Guards, &c. but 'by a good Conſcience.

The Ground of this Encomium, may be owing, in ſome meaſure, to that affinity between the *Stoicks* and *Cynicks*: the chief difference between 'em was, that the former were more modeſt and reſerv'd than the latter; who were ſaid to have baniſh'd all Shame, and were able to practiſe any Obſcenity without bluſhing.

Hence, *Laertius* obſerves of *Diogenes*, that he did every thing openly, whether it belong'd to *Ceres* or to *Venus*: Tho, the ſame *Laertius* adds, that he did it in imitation of the *Chorididaſcali*, *i. e.* he only ran to an Exceſs of Impudence, to put others out of conceit with it.

Spaſmus CYNICUS, a ſort of Spaſm, or Convulſion; whereby the Patient is brought to imitate the Geſtures, Snarlings, Howlings, &c. of a Dog. See SPASMUS.

Dr. *Freind*, in the *Philoſophical Tranſactions*, gives us an Account of a very extraordinary *Spaſmus* of this Kind, wherewith two Families, at *Blackthorn* in *Oxfordſhire*, were ſeiz'd.

The Novelty of the Thing drew abundance of Viſitors to the Village, and among the reſt Dr. *Willis*; who, a good while ere he reach'd the Place, heard a terrible Noiſe of barking and howling: upon his entering the Houſe, he was ſtrait ſaluted with five Girls, bawling, and anſwering each other by turns, with violent Motions of the Head. In their Face there was no Convulſion ſeen, beſide *Cynic* Diſtortions, and Oſcillations of the Mouth: Their Pulſe was pretty regular; their Noiſe was rather like that of the howling, than of the barking of Dogs; only that its Returns were more frequent, with deep Sighings between.

The *Spaſmus* had ſeiz'd 'em all equally; whereof the youngeſt was but ſix, and the eldeſt fifteen Years of Age: At Intervals they had their Reaſon and Senſes entire; but not long, ere one of 'em returning to her yelling, ſet on the reſt: till at length, all fainting, they fell like Epilepticks on a Bed laid in the middle of the Room to receive 'em.

A little while they would lie quietly and decently together; but upon a new Orgaſm of the Spirits, they began to beat and bruiſe each other. Two of the youngeſt awak'd while the Doctor ſtaid, and left their Siſters on the Bed: but the *Spaſmus* ſoon had hold on 'em again.

In *July*, 1700, Dr. *Freind* himſelf viſited another Family, in the ſame Village; where one Boy and three Girls had been ſeiz'd ten Weeks, without any apparent preceding Cauſe. A Girl had it firſt; and the reſt, as the Mother inform'd him, were ſo ſtruck with their Siſter's Diſorder, that they too were ſeiz'd.

At his Arrival, they were all at play, very briſkly and unconcernedly, before the Doors; at length the eldeſt Girl, about fourteen Years of Age, was ſeiz'd as uſual.

The only Symptom of its approach, was a Swelling of the Stomach; which riſing gradually up the Throat, ſet the Muſcles of the Larynx and the Head upon their uſual Convulſions: This Riſing was a certain Symptom of an approaching Paroxyſm in 'em all; and if they endeavour'd to ſtop it, it burſt out with the greater Violence, and held the longer.

The Noiſe they made was inceſſant, and diſagreeable; yet not ſo much like the barking or howling of Dogs, as had been given out, as a quaint kind of a Song, conſiſting of three Notes, or Tones, repeated twice over; and cloſed by deep Sighs, &c. accompany'd with extraordinary Geſtures and Nutations of the Head.

This Diſeaſe the Doctor takes to be natural; and to ariſe from the common Cauſe of all Convulſions, *viz.* from the Animal Spirits growing unruly in the Nerves, and driving the Muſcles into various Contractions, according to the Circumſtances of the Indiſpoſition. See CONVULSION.

CYNODESMUS, among Anatomiſts, the Band, or Ligament, which ties the Prepuce of the Yard to the Nut, or Glans. See PREPUCE, and GLANS.

CYNOREXY, an immoderate Appetite; to the Degree of a Diſeaſe; called alſo *Fames Canina*, and *Bulimy*. See BULIMY.

CYNOSURA, in Aſtronomy, a Name the *Greeks* have given to *Urſa Minor*, or the little Bear. See URSA.

This is the Conſtellation next our Pole, conſiſting of ſeven Stars; four whereof are diſpos'd like the four Wheels of a Chariot; and three lengthwiſe, repreſenting the Beam: whence ſome give it the Name of the *Chariot*, or *Charles's Wain*.

From theſe ſeven Stars it is the Pole takes its Name, *Septentrionalis*; and the reſt of the Hemiſphere, as far as the Line, *Septem Triones*. See POLE, NORTH, &c.

The Word *Cynoſura* is form'd of κυνοσουρα, q. d. *the Dog's-Tail*.

CYON, or CION, a Graft, Sprig, or Sucker. See CION, GRAFT, &c.

CYPHER. See CIPHER.

CYPHI, a Term in the *Arabian* Pharmacy, ſignifying a kind of ſtrengthning Perfume. See PERFUME.

Mithridates gives the Appellation *Cyphi* to the Troches wherewith the *Egyptian* Prieſts us'd to ſweeten their Gods, to make 'em grant what they requeſted. He uſed the ſame in the Compoſition of Mithridate, on account of their efficacy againſt Poiſons, Defluxions, &c. See MITHRIDATE.

The *Cyphi* are compos'd of Raiſins, or dry'd Grapes, Turpentine, Myrrh, Bdellium, Spica Nardi, Caſſia Lignea, Aſpalathum, Saffron, &c. temper'd into a Maſs with Honey and a little Wine.

CYPHONISM, CYPHONISMUS, a Kind of Torture, or Puniſhment, in uſe among the Antients.

The Learned are at a loſs to determine what it was: Some will have it to be that mention'd by S. *Jerom*, in his Life of *Paul the Hermit*, Ch. II. which conſiſted in ſmearing the Body over with Honey, and thus expoſing the Party, with his Hands ty'd, to the warm Sun, to invite the Flies and other Vermin to perſecute him.

CYPRESS, *Cupreſſus*, in Natural Hiſtory, a precious ſort of Wood, the Produce of a Tree of the ſame Name; frequent in the Iſland of *Cyprus*.

It is very compact, and heavy; and its Smell as agreeable as that of Santal. It ſcarce ever rots, decays, or is worm-eaten, no more than Cedar, or Ebony: For which Reaſon, the Antients uſed it to make the Statues of their Gods.

In *Candia*, and particularly about Mount *Ida*, the Plant is ſaid to riſe ſpontaneouſly, wherever the Earth is a little dug; but is exceeding difficult to raiſe by Art.

The Fruit of this Tree, call'd *Cones*, is us'd in aſtringent Decoctions, for Hernia's, Hemorrhages, &c.

CYPRUS, an Order of Knights, call'd alſo Knights of *Silence*, and Knights of *the Sword*; inſtituted by *Guy de Luſignan*, King of *Cyprus*, in 1192.

The

The Deſign of the Inſtitution was, to oppoſe the Deſcents and Irruptions of the Infideis in this Iſland: Accordingly, their Motto was *Securitas Regni*. See SWORD.

CYRENAICI, a Sect of antient Philoſophers; ſo called from their Chief, *Ariſtippus* of *Cyrene*, a Diſciple of *Socrates*.

Their leading Tenet was, that Man was born for Pleaſure; and that Vertue is only ſo far laudable, as it conduces thereto.

By Pleaſure, they meant, not only a Privation from Pain, and a Tranquillity of Mind like what *Epicurus* preach'd up; but an Aſſemblage of all the poſitive Pleaſures both of the Mind and the Senſes; eſpecially the laſt.

Cicero makes frequent mention of *Ariſtippus*'s School; and ſpeaks of it as if it yielded Debauchees.

Three Diſciples of *Ariſtippus*, after his Death, divided the Sect into three Branches; under which Diviſion it languiſh'd and ſunk: the firſt call'd the *Hegeſiac* School; the ſecond the *Annicerian*, and the third the *Theodorian*; from the Names of their Authors.

CYRTOMA, a Tumor in any Part of the Body. See TUMOR.

CYST-HEPATIC *Duct*, a Canal, by which the *Porus Bilarius* diſcharges part of its Bile into the Gall-Bladder. It was firſt deſcrib'd by Dr. *Gliſſon*, and long afterwards pretended to be diſcover'd by M. *Perrault*.

Verhayen, from the Courſe of the Bile, inverts the Name, and more properly calls it *Hepaticyſticus*. See HEPATICYSTICUS.

CYSTIC, an Epithet given to two Arteries and two Veins in the Gall-Bladder. See GALL-*Bladder*.

The *Cyſtic* Arteries, or *Cyſticæ Gemellæ*, are two Branches from the *Cæliac*, beſtow'd on the Gall-Bladder, and bringing Blood into the ſame: The *Cyſtic Veins* return the Remains of this Blood into the *Vena Porta*. See PORTA.

CYSTICS, are Medicines againſt Diſtempers in the Bladder. See LITHONTRIPTICS.

CYSTICUS *Meatus*, a Bilary Duct, about the bigneſs of a Gooſe's Quill; join'd to the *Meatus Hepaticus*, at about two Inches diſtance from the Gall-Bladder; the two together forming the *Ductus Communis*. See DUCTUS *Communis*.

CYSTIS, the ſame with *Veſica*, or *Bladder*. See VESICA, and BLADDER.

The Word is *Greek*, κύστις.

CYSTIS *Choledocha*, the ſame with *Folliculus Fellis*. See FOLLICULUS.

CYTHARA, an antient Muſical Inſtrument, by ſome ſuppoſed the ſame with the *Lyra*; at leaſt, a particular Species of the *Lyra*; by others different: Tho its preciſe Structure does not appear. See LYRE.

The Antients deſcribe it as triangular, in form of a *Greek Delta*, Δ: The Poets aſcribe the Invention to *Apollo*.

CYZICENES, *Cyzicena*, among the antient *Greeks*, were a ſort of magnificent Banquetting-Houſes, always expos'd to the North, and uſually opening upon Gardens.

They had their Name from *Cyzicus*, a City very conſiderable for the Grandeur of its Buildings; ſituate in an Iſland of the *Propontis* of the ſame Name.

Theſe *Cyzicenes* were among the *Greeks*, what the *Triclinia* and *Cœnacula* were among the *Romans*.

CZAR, a Title of Honour, aſſum'd by the Grand-Dukes, or, as they are now ſtyl'd, Emperors, of *Ruſſia*.

The Natives pronounce it *Tzar*, or *Zaar*; and this, by Corruption, from *Ceſar*, Emperor: they pretending to be deſcended from *Auguſtus*; and accordingly bearing the Eagle as a Symbol of their Empire. See CESAR.

The firſt who bore the Title of *Czar*, was *Baſil*, Son of *Baſilides*, who freed his Country from its Subjection to the *Tartars*, and firſt ſet it on its preſent Footing, about the Year 1470.

M. *Sperlingius*, in his Diſſertation on the Majeſty of the Name *Konning*, obſerves, that the *Ruſſian* Princes never bore the Name of *Czar*, till their People had embrac'd the *Greek* Faith: before that Time, he ſays, they were called *Konger*, King.

D.