as, before, they were taken from various Subjects, they were now all drawn from one and the same.

The *Chorus*, by degrees, became inserted and incorporated into the Action, to which it was only intended as an Addition or Ornament. Sometimes the *Chorus* was to speak, and then their Chief, whom they call'd *Coryphæus*, spoke in behalf of all the rest: The singing was perform'd by the whole Company; so that when the *Coryphæus* struck into a Song, the *Chorus* immediately join'd him. See CORYPHÆUS.

Besides the four Songs, which made the Division of the Piece, and which were manag'd by the *Chorus*, the *Chorus* sometimes, also, join'd the Actors in the Course of the Representation, with their Plaints and Lamentations; on occasion of any unhappy Accidents that befel 'em.

But the proper Function of the *Chorus*, now that Tragedy was form'd, and that for which it seem'd chiefly retain'd, was to shew the Intervals of the Acts: While the Actors were behind the Scenes, the *Chorus* engag'd the Spectators; their Songs usually turn'd on what was just exhibited; and were not to contain any thing but what was suited to the Subject, and had a natural Connection with it: so that the *Chorus* concurr'd with the Actors for advancing the Action.

'Tis a Fault observ'd in *Euripides*'s Tragedies, that his *Chorus*'s are detach'd from the Action, and not taken from the same Subject. There were some other Poets, who to save the Pains of composing *Chorus*'s, and adapting them to the Piece, contented themselves with invented Songs, which had no relation to the Action. These Foreign *Chorus*'s were the less pardonable, as the *Chorus* was esteem'd to act a Part in the Piece; and to represent the Spectators, who were look'd on as interested therein; insomuch that the *Chorus* was not always to be mute, even in the Course of the Acts.

In the modern Tragedies, the *Chorus* is laid aside; and the Fiddles supply its Place. M. *Dacier* looks on this Retrenchment as of ill consequence; and thinks it robs Tragedy of a great part of its Lustre. He adds, that 'tis ridiculous to have a Tragic Action broke, and interrupted by impertinent Flourishes from the Musick Box: and to have the Spectators, who are suppos'd to be mov'd by the Representation, become all of a sudden calm and easy, break off at the height of a Passion, and amuse themselves peaceably with a Foreign Entertainment. The Re-establishment of the *Chorus* he judges necessary, not only for the Embellishment and Regularity of the Piece; but also, in regard it was one of its principal Functions, to redress and correct any Extravagancies that might fall from the Mouths of the Actors, when under any violent Passion, by prudent, and virtuous Reflections.

That which occasion'd the Suppression of the *Chorus*, was its being incompatible with certain Complots, and secret Deliberations of the Actors. For 'tis in no wise probable, that such Machinations should be carry'd on in the Eyes of Persons interested in the Action. As the *Chorus*, therefore, never went off the Stage, there seem'd a Necessity of laying it aside, to give the greater Probability to these kind of Intrigues, which require Secrecy. See TRAGEDY.

M. *Dacier* observes, there was a *Chorus*, or *Grex*, also in the antient Comedy; but that too is suppress'd in the new: chiefly because made use of to reprove Vices, by attacking Persons. See COMEDY.

The *Chorus* in Comedy was at first no more than a single Person, who spoke in the antient Composures for the Stage: The Poets, by degrees, added to him another; then two, afterwards three, and at last more: so that the most antient Comedies had nothing but the *Chorus*, and were only so many Lectures of Virtue.

*To give the* CHORUS, among the *Greeks*, was to purchase a Dramatic Piece of the Poet, and defray the Expences of its Representation.

The Person who did this was call'd *Choragus*. At *Athens*, the Charge of *Choragus* was laid on the Archon; at *Rome* on the Ædiles. See CHORAGUS.

CHORUS is likewise us'd in Musick, where, at certain Periods of a Song, the whole Company are to join the Singer, in repeating certain Couplets, or Verses.

CHOSE, i.e. *thing*, in Law, is us'd in various Circumstances, and with various Epithets; as,

CHOSE *Local*, something annex'd to a Place, *v.g.* a Mill.

CHOSE *Transitory*, something movable, and which may be transported from place to place.

CHOSE *in Action*, is not any thing Corporeal, but only a Right, *v. g.* an Annuity, Obligation, Covenant, *&c.*

*Chose in Action* may also be called *Chose in Suspence*, as having no real Existence, and not being properly in Possession.

CHRISM, Oil consecrated by the Bishop, and us'd in the *Romish* and *Greek* Churches, in the Administration of Baptism, Confirmation, Ordination, and Extreme Unction. See OIL, ORDINATION, EXTREME UNCTION, *&c.*

The *Chrism* is prepar'd on *Holy Thursday* with a world of Ceremony. In *Spain*, 'twas antiently the Custom for the Bishop to take one third of a *Sol* for the *Chrism* distributed to each Church; on account of the Balsam that enter'd its Composition.

In *England* we had likewise CHRISM *Pence*, *Chrismatis Denarii*, or *Chrismales Denarii*; which was a Tribute paid to the Bishop by the Parish Clergy, for their *Chrism*, consecrated at *Easter* for the ensuing Year: but this was afterwards condemn'd as Simoniacal.

The Word comes from the *Greek* χρισμα, which signifies the same thing.

*Du Cange* observes, there are two Kinds of *Chrism*; the one prepar'd of Oil and Balsam, us'd in Baptism, Confirmation, and Ordination; the other of Oil alone, consecrated by the Bishop, us'd antiently for the Catechumens, and still in Extreme Unction.

The *Maronites*, before the Time of their Reformation, besides Oil and Balsam, us'd Musk, Saffron, Cinnamon, Roses, white Incense, and several other Drugs mention'd by *Reynoldus*, in 1541, with the Doses of each. The Jesuit *Dandini*, who went to Mount *Libanus* in quality of the Pope's Nuntio, ordained, in a Synod held there in 1596, that *Chrism*, for the future, should be made only of two Ingredients, Oil and Balsam; the one representing the human Nature of Jesus Christ, the other his Divine Nature.

The Action of imposing the *Chrism*, is call'd CHRISMATION: This the generality of the *Romish* Divines hold to be the next Matter of the Sacrament of Confirmation.

The *Chrismation* in Baptism, is perform'd by the Priest; that in Confirmation by the Bishop: That in Ordination, *&c.* is more usually styl'd *Unction*. See UNCTION.

CHRISOM, CHRISMALE, was antiently the Face-cloth, or piece of Linen laid over the Child's Head when he was baptiz'd.

Whence, in our Bills of Mortality, such Children which die in the Month are call'd *Chrisoms*; and the Time between the Child's Birth and Baptism, was call'd *Chrisomus*.

CHRIST, an Appellation usually added to *Jesus*; and, together therewith, denominating the *Messiah*, or Saviour of the World. See JESUS, and MESSIAH.

The Word in the original *Greek* χριστὸς, signifies *Anointed*, of χρίω, *Inungo*, I anoint.

Sometimes the Word *Christ* is us'd singly, by way of *Antonomasis*, to denote *a Person sent from God*, an anointed Prophet, or Priest, *&c.*

*Order of* CHRIST, a Military Order, founded in 1318, by *Denis* I. King of *Portugal*, to animate his Nobles against the *Moors*.

Pope *John* confirm'd it in 1320, and appointed the Knights the Rule of S. *Bennet*. *Alexander* VI. permitted them to marry.

The Order became afterwards insensibly reunited to the Crown of *Portugal*; and the King took upon him the Administration thereof.

The Arms of the Order are, Gules, a Patriarchal Cross, charg'd with another Cross Argent. They had their Residence, at first, at *Castromarin*; afterwards they remov'd to the City of *Thomar*, as being nearer the *Moors* of *Andalusia*, and *Estramadura*.

*Christ* is also the Name of a Military Order in *Livonia*, instituted in 1205, by *Albert* Bishop of *Riga*. The End of their Institution was to defend the new Christians who were converted every Day in *Livonia*, but persecuted by the Heathens.

They wore on their Clokes a Sword with a Cross over it; whence they were also denominated *Brothers of the Sword*.

CHRISTENING. See BAPTISM.

CHRISTIAN, something that relates to *Christ*. See CHRIST.

The King of *France* bears the Title, or Sirname of the *Most Christian King*, *Rex Christianissimus*. The *French* Antiquaries trace the Origin of the Appellation up to *Gregory* the Great; who writing a Letter to *Charles Martel*, occasionally gave him that Title, which his Successors have since retain'd. See TITLE.

*Lambecius*, a *German*, in the IIId Tome of the *Emperor's Library*, holds, that the Quality of *Most Christian* was not ascrib'd to the antient *French* Kings, *Louis le Debonair*, &c. as Kings of *France*, but as Emperors of *Germany*; but the *French* Historians have refuted this Plea.

CHRISTIAN *Religion*, that instituted by *Jesus Christ*. See RELIGION, and REVELATION.

CHRISTIAN *Name*, that given at Baptism. See NAME.

CHRISTIAN *Church*. See CHURCH.

CHRISTIAN *Court*, or *Curia Christianitatis*, is the Ecclesiastical Jurisdiction; in contradistinction to Civil Courts, which are call'd King's Courts, *Curiæ Domini Regis*. See COURT.

CHRISTIAN is peculiarly and absolutely us'd for a Person who believes in Christ, and is baptiz'd in his Name.

The Name *Christian* was first given at *Antioch*, to such as believ'd in Christ, as we read in the *Acts*: Till that time they were call'd *Disciples*.

CHRISTIANS *of St.* John, a Sect of *Christians*, very numerous in *Balsara* and the neighbouring Towns.

They formerly inhabited along the River *Jordan*, where St. *John* baptiz'd; and 'twas thence they had their Name. But after the *Mahometans* became Masters of *Palestine*, they retir'd into *Mesopotamia* and *Chaldea*.

They hold an Anniversary Feast of five Days; during which, they all go to their Bishops, who baptize them with the Baptism of St. *John*: Their Baptism is also perform'd in Rivers, and that only on Sundays.

They have no Notion of the third Person in the Trinity; nor have they any Canonical Books, but abundance full of Charms, *&c.* Their Bishopricks descend by Inheritance, as our Estates do; tho they have the Ceremony of an Election.

CHRISTIANS *of S.* Thomas, or *San Thomas*, a Sect of antient *Christians*, found in the *East-Indies*; when the *Europeans* touch'd at the Port of *Calecut*; who pretend to be descended from those S. *Thomas* converted in the *Indies*: whence the Name.

The Natives call 'em, by way of Contempt, *Nazareans*; their more honourable Appellation is *Mappuley*.

Some learned Men in *Europe* say, 'twas not St. *Thomas* the Apostle that converted that Country, but another St. *Thomas*: others say, 'twas a *Nestorian* Merchant, call'd *Thomas*. 'Tis certain they are *Nestorians*, and have been so a long time; insomuch, that Christians of *St. Thomas*, is now esteem'd by many a Name of a Sect.

They have a Patriarch, who resides at *Mosoul*.

The Pope has made several Attempts to reduce 'em under his Obedience, but to no purpose.

CHRISTMAS, the Feast of the Nativity of Jesus Christ. See FEAST, NATIVITY, *&c.*

It appears from S. *Chrysostom*, that in the primitive Times, *Christmas* and Epiphany were celebrated as one and the same Feast: That Father observes, it was but a little while that *Christmas* had been celebrated at *Antioch* on the 25th of *December*, as a distinct Feast; and that the Use thereof came from the West. He adds, that the *Armenians* made but one Feast of them, as low as the XIIth Century. See EPIPHANY.

CHRISTOLYTES, a Sect of Hereticks mention'd by *Damascenus*; so call'd, because they destroy'd *Christ*: maintaining, that he descended into Hell, Body and Soul; and that he left both there; ascending to Heaven with his Divinity alone.

The Word comes from the *Greek* χριστὸς, and λυω, *I resolve*.

CHROMA, in Rhetoric, a *Colour*, or fair Pretence. See COLOUR.

The Word is *Greek* χρῶμα, which literally denotes *Colour*.

CHROMA, in Musick. See CHROMATIC.

CHROMATIC, in the antient Musick, the second of the *Genera*, or Kinds, into which the Consonant Intervals were subdivided into their concinnous Parts. See GENUS.

The other two Kinds were, the *Enharmonic*, and the *Diatonic*. See ENHARMONIC, and DIATONIC.

The *Chromatic* abounds in Semitones: It had its Name, either by reason the *Greeks* mark'd it with the Character of Colour, which they call χρῶμα; or, as *P. Parran* says, because the *Chromatic* Kind is a Medium between the other two, as Colour is between black and white: or because the *Chromatic* Kind varies and embellishes the *Diatonic* Kind, by its Semitones; which have the same Effect in Musick, with the Variety of Colours in Painting.

*Aristoxenus* divides the *Chromatic* Genus into three Species; the *Molle*, *Hemiolion*, and *Tonicum*. *Ptolemy* into *Molle* or *Antiquum*, and *Intensum*. See SPECIES.

These Species were also call'd *Chroai*, or Colours of the Genera: the *Molle* expresses a Progression by small Intervals, the *Intensum* by greater.

The *Chromatic* and *Enharmonic* Kinds, only contain the smallest of the *Diatonic* Degrees; so as they have the same proportion to the *Diatonic*, as Fractions have to Integers.

*Boetius*, and after him *Zarlin*, attribute the Invention of the *Chromatic* Genus to *Timotheus* a *Milesian*, in the Time of *Alexander* the Great. The *Spartans* banish'd it their City, by reason of its softness.

Mr. *Malcolm* observes, that we are at a loss for what use the Antients could make of these Divisions, and Subdivisions into *Genera* and *Species*. All acknowledg'd the *Diatonic* to be the true Melody; the others seem only humorous Irregularities, calculated to please the Fancy by their novelty and oddness; and were besides so very difficult, that few, if any, are said to have ever practis'd them accurately. See MUSICK.

CHROMATIC is us'd, in Painting, for the Colouring; which makes the third Part of the Art of Painting. See COLOURINGS.

CHRONIC, CHRONICAL, in Medicine, is apply'd to a slow, or inveterate Disease, which lasts a long time; as the *Gout*, *Hæmorrhoids*, *Fistula*, *Dropsy*, *Asthma*, &c. See DISEASE.

*Chronic* Diseases stand in opposition to *acute* Diseases, which are speedy, and hasten to a Crisis; as *Fevers*, *Small-Pox*, &c. See ACUTE.

*Chronic* Diseases are usually owing either to some natural Defect in the Constitution; or to an irregular manner of living. The Word comes from the *Greek* χρόνος, *Time*.

Most of the *Chronical* Diseases, says Dr. *Cheyne*, the Infirmities of old Age, and the short Periods of the Lives of *Englishmen*, are owing to Repletion: This is evident hence, that Evacuation of one kind or another, is nine Parts in ten of their Remedy. See REPLETION, and EVACUATION.

The Sources of *Chronical* Distempers, says the same Author, are, 1. Viscidity in the Juices, or the overlargeness of their constituent Particles; which not being sufficiently broken by the concoctive Powers, stop, or retard the Circulation. Or, 2. Too great abundance of sharp acrimonious Salts; whereby the Juices themselves are render'd so corrosive, as to burst or wear out the Solids. Or, 3. A Relaxation, or want of a due Force and Springiness of the Solids themselves.

An Excess in the Quantity of our Meat and Drink begets the first; the bad Condition of the same Foods the second; and both together, with want of due Exercise, the third. See FOOD, EXERCISE, *&c.*

CHRONICLE, CHRONICON, a History digested in order of Time; tho the Term is seldom us'd but for old Histories, as *Hollinshed's Chronicle*, *Stow's Chronicle*, &c. See HISTORY, *&c.*

CHRONOGRAM, a kind of Verse, the figurative, or numeral Letters thereof, being join'd together, make up the Year of our Lord, *&c.*

The Word is compos'd of χρόνος, *Time*, and γραμμα, *Letter*.

CHRONOLOGY, the Art of measuring and distinguishing Time; or the Doctrine of Epochas, *&c.* See TIME, EPOCHA, *&c.*

*Sturmius* divides *Chronology* into five distinct Branches, *viz.* Metaphysical, Physical, Political, Historical, and Ecclesiastical; according to the various Relations, or Habitudes wherein Time is consider'd; *viz.* as in it self, as connected and subjected to the Affections, States, and Alterations of natural Things; as accommodated to Civil Uses; as match'd with Events that pass in the World; and particularly, as it relates to the Celebration of *Easter*. See HOUR, DAY, WEEK, MONTH, YEAR, CALENDAR, CYCLE, PERIOD, EPACT, EASTER, *&c.*

There is more difficulty in *Chronology* than every one is aware of: It requires not only the Knowledge of Astronomy and Geography, and consequently that of Arithmetic, Geometry, and Trigonometry, both plain and spherical; but also a world of Application to the antient Monuments. Its use is very great: 'tis call'd one of the Eyes of History; and serves good Purposes in Theology.

The Word is compounded of the *Greek* χρόνος, *Time*, and λογος, *Discourse*.

The more eminent Writers on *Chronology*, among the Antients, are *Julius Africanus* in the IIId Century; *Dionysius Exiguus*, *Eusebius*, and *Cyril*.

Among the Moderns, *Bede*, *Funccius*, *Mercator*, *Lilius*, *Clavius*, *Scaliger*, *Vieta*, *Petavius*, *Cassini*, *Munster*, *Calvisius*, *Hardouin*, *Capellus*, *Usher*, *Marsham*, *Helvicus*, *Strauchius*, *I. Vossius*, and *Beveridge*.

CHRONOMETER, a general Name for any Instrument us'd in the measuring of Time: In this Sense, Clocks, Watches, Dials, *&c.* are *Chronometers*.

Tho there are some Instruments peculiarly call'd by the Name *Chronometer*; particularly one describ'd by M. *Sauveur*, in his *Principles of Acoustics*.

The Word is compos'd of χρονος, *Time*, and μετρον, *mensura*, Measure.

CHRYSALIS, a Term us'd by the modern Writers of Natural History of Insects, in the same Sense with *Nympha*. See NYMPHA.

The Word seems to imply a peculiar yellow, or golden Colour, usual in the *Nympha*; from the *Greek* χρυσος, *Gold*: but this is purely accidental, and is not found in all *Nymphæ*.

Some confine the Word to the *Nympha* of Butterflies and Moths.

CHRYSARGYRUM, a Tribute formerly levy'd on Courtesans, and other Persons of evil Life.

*Zozimus* says, that *Constantine* first set it on foot; tho there appear some Traces of it in the Life of *Caligula* by *Suetonius*; and that of *Alexander* by *Lampridius*. *Evagrius* says, *Constantine* found it establish'd, and had some Thoughts of abolishing it.

It was paid every four Years: Some say, all petty Traders were liable to it. It was abolish'd by *Anastasius*.

M. *Godeau* thinks, the *Chrysargyrum* was a general Tribute, levied every four Years, on Persons of all Conditions, Rich and Poor, Slaves and Freemen: nay, even on all Animals, as low as Dogs; for each whereof they paid six *Oboli*.

*Hoffman* says, it was paid in Gold and Silver; whence its Name χρυσὸς, *Gold*, and ἀργυρὸς, *Silver*.

CHRYSOBERIL, a precious Stone; being a kind of pale Beril, with a Tincture of yellow. See BERIL.

CHRYSOCOLLA, a Mineral us'd in the soldering of Gold, &c. whence its Name. See GOLD, SOLDERING, &c.

It is found in Mines of Gold, Silver, Copper, and Lead: Its Colour is various, according to that of the Matter in which it is found; yellow if among Gold, white in Silver, green in Copper, and black in Lead. The *Arabs*, and Inhabitants of *Guzuratte*, call it *Tincar*, or *Tincal*: In *Europe*, where 'tis found in various Places, 'tis confounded with the common Borax.

The best is that which is green, like an Emerald, found among Copper: that found among the other Metals is too much wash'd.

Some reckon the *Chrysocolla* a Species of Nitre.

The Physicians use it in the Cure of Wounds: Some make an Artificial *Chrysocolla*, by mixing a little of the Natural, steep'd in Water, with Wood.

The Term is form'd of the *Greek* χρυσὸς, *Gold*, and κόλλα, *Glue*. See BORAX.

CHRYSOCOLLA is also the Name of a sort of precious Stone, mention'd by *Pliny*, L. xxxvii. cap. 10. who also calls it *Amphitanus*: He describes it as of a Gold Colour, and the Figure of a Square; adding, that it has the Virtue of attracting Iron, and even Gold.

But this, in all probability, is fabulous; and the Stone he speaks of is apparently no other than the *Chrysolite*.

CHRYSOLITE, a precious Stone of a yellow Colour. See PRECIOUS *Stone*.

The *Chrysolite* is the Topaz of the Moderns. See TOPAZ.

CHRYSOLITE is also a generical Name which the Antients gave to all precious Stones, wherein the yellow, or gold, was the prevailing Colour.

When the Stone was green, they call'd it *Chrysoprasin*: the red and blue too had their particular Denominations, which express'd their Colour; the Gold being signify'd by *Chryso*; which still began the Name.

We know but few of these *Chrysolites* now; or rather, they are referr'd to the Species of Stones which they approach the nearest: the green to the Emerald, the red to the Ruby; and so of the rest.

CHRYSTAL. } See { CRYSTAL.
CHRYSTALLINE. } { CRYSTALLINE.
CHRSTALLIZATION. } { CRYSTALLIZATION.

CHRYSTAL *Mineral*, the same as *Sal Prunella*. See PRUNELLA.

CHUPMESSAHITES, a Sect among the *Mahometans*, who believe that Jesus Christ is God, and the true Messiah, the Redeemer of the World; but without rendring him any publick or declar'd Worship.

*Ricaut* says, there are abundance of these *Chupmessahites* among the People of fashion in *Turky*, and some even in the Seraglio.

The Word, in the *Turkish* Language, signifies Protector of the Christians.

CHURCH, the Assembly of Persons united by the Profession of the same Christian Faith, and the Participation of the same Sacraments.

*Bellarmin*, and the *Romish* Divines, to this Definition add, *Under the same Pope, sovereign Pontiff, and Vicar of Jesus Christ on Earth*: in which Circumstance it is that the *Romish* and Reformed Notion of *Church* differ.

*Amelotte*, and others, make a visible Head, or Chief, essential to a *Church*: Accordingly, among the Catholics, the Pope; in *England* the King, are respectively allow'd Heads of the *Church*. The Bishop of *Salisbury* sets aside the Notion of a visible Head: Christ alone, according to him, is Head of the Church; which Position he has maintain'd with infinite Address, in a celebrated Sermon before the King on those Words of our Saviour, *My Kingdom is not of this World*; and in the several Vindications thereof.

Sometimes, we consider *Church* in a more extensive Sense, and divide it into several Branches.

The *Church Militant* is the Assembly of Faithful on Earth; *Church Triumphant*, that of the Faithful already in Glory: to which the Catholics add the *Church Patient*, that of the Faithful in Purgatory.

The Term *Ecclesia*, ἐκκλησία, synonymous with our Church, is us'd in the *Greek* and *Latin* profane Authors for any kind of publick Assembly; and even for the Place where the Assembly is held.

The Sacred and Ecclesiastical Writers sometimes also use it in the same Sense; but ordinarily restrain the Term to the *Christians*; as the Term *Synagogue*, which originally signifies nearly the same thing, is in like manner restrain'd to the *Jews*. See SYNAGOGUE.

Thus, in the New Testament, the *Greek* ἐκκλησία, signifies almost always, either the Place destin'd for Prayer, as 1 *Cor.* xi. 14. or the Assembly of the Faithful diffus'd over the whole Earth, as *Ephes.* v. or the Faithful of a particular City, or Province, as 1 *Cor.* viii. 1, 2. or even of a single Family, as *Rom.* xvi. or the Pastors or Ministers of a *Church*, as *Matt.* xviii. 17.

The Christian *Church* is frequently divided into *Greek* and *Latin*.

*Greek, or Eastern* CHURCH, comprehends the *Churches* of all the Countries antiently subject to the *Greek*, or Eastern Empire; and thro' which their Language was carry'd, *i.e.* all the Space extended from *Greece* to *Mesopotamia* and *Persia*, and thence into *Egypt*; which has been divided ever since the Time of the Emperor *Photius*, from the *Roman Church*. See GREEK *Church*.

*Latin, or Western* CHURCH, comprehends all the *Churches* of *Italy*, *France*, *Spain*, *Africa*, the North, and all other Countries whither the *Romans* carry'd their Language.

*Great Britain*, part of the *Netherlands*, of *Germany*, and of the North, have been separated hence ever since the Time of *Henry* VIII. and constitute what we call the *Reform'd Church*, and what the *Romanists* call the *Western Schism*; as the *Greek Church* does the *Eastern* one.

The *Reformed* CHURCH is again divided into the *Lutheran Church*, the *Calvinist Church*, the *Church of England*, &c. See LUTHERANISM, CALVINISM, &c.

CHURCH is also us'd for a Temple, built and consecrated to the Honour of God; and, antiently, under the Invocation of some particular Saint, whose Name it assum'd. See TEMPLE; see also CONSECRATION, &c.

In this Sense, *Churches* are variously denominated, according to their Rank, Degree, Discipline, &c. as *Metropolitan Church*, *Patriarchal Church*, *Cathedral Church*, *Parochial Church*, *Cardinal Church*, &c. See each under its proper Article, METROPOLIS, PATRIARCH, CATHEDRAL, PAROCHIAL, CARDINAL, &c.

In Ecclesiastical Writers, we meet with *Grand Church*, for the chief Church of a Place; particularly in the *Greek* Liturgy, for the *Church* S. *Sophia* at *Constantinople*, the See of the Patriarch, founded by *Constantine*, and consecrated under *Justinian*: It was at that time so magnificent, that *Justinian* is said to have cry'd out in the Consecration thereof ἐνίκησάσε Σολομῶν, *I have out-done thee*, Solomon. The Dome, which is said to have been the first that was built, is 330 Foot Diameter. See DOME.

The first *Church* publickly built by the Christians, some Authors maintain to be that of S. *Saviour* at *Rome*; founded by *Constantine*: others contend, that several *Churches* abroad, call'd by the Name of S. *Peter Vivus*, were built in honour of that Apostle during his Lifetime.

*Mother* CHURCH, *Matrix Ecclesia*. See MATRIX, and MOTHER.

CHURCH, with regard to Architecture, *Daviler* defines a large Vessel extended in length, with Nave, Choir, Isles, Chapel, Belfry, &c. See each Part under its proper Head, NAVE, CHOIR, CHAPEL, &c.

A *simple Church*, he calls that which has only a Nave and a Choir; a *Church with Isles*, that which has a row of Porticos, in form of vaulted Galleries with Chapels in its Pourtour.

*Church in a Greek Cross*, that where the Length of the Cross is equal to that of the Nave; so called, because most of the *Greek* Crosses are built in this form. *Church in a Latin Cross*, that whose Nave is longer than the Cross, as most of the *Gothic Churches*. *Church in Rotondo*, that whose Plan is a perfect Circle, in Imitation of the Pantheon. See ROTONDO, &c.

For the Form of the antient *Greek Churches*, when they had all their Parts, it was as follows: First was a Porch, or Portico, call'd the *vaunt Nave*, πρόναος, adorn'd with Columns on the outside, and on the inside surrounded with a Wall; in the middle whereof was a Door, thro' which they pass'd into a second Portico. The first of these Porticos was destin'd for the *Energumenes*, and Penitents in the first Stage of their Repentance; the second was much longer, destin'd for Penitents of the second Class, and the *Catechumens*, and hence call'd ναρθηξ, *Ferula*; because those plac'd in it began to be subject to the Discipline of the *Church*. These two Porticos took up about one third of the space of the whole *Church*.

From the second Portico, they pass'd into the *Nave*, ναὸς, which took up near another third of the *Church*. In the middle, or at one side of the Nave, was the *Ambo*, where the Deacons and Priests read the Gospel and preach'd. See AMBO. The Nave was destin'd for the Reception of the People, who here assisted at Prayers.

Near the Entrance of this was the *Baptistery*, or Font. See BAPTISTERY.

Beyond

Beyond the Nave was the *Choir*, χορος, set with Seats, and round: the first Seat on the right, next the Sanctuary, being for the Chantor, or *Choragus*. See CHANTOR, &c.

From the Choir, they ascended by Steps to the *Sanctuary*, which was enter'd at three Doors. The Sanctuary had three *Apsides* in its length; a great one in the middle; under which was the *Altar*, crown'd with a *Baldaquin*, supported by four Columns: See SANCTUARY, BALDAQUIN, &c. Under each of the small *Apsides*, was a kind of a Table, or Cupboard, in manner of a Buffet. See APSIDES, &c.

Tho, of the *Greek Churches* now remaining, few have all the Parts above describ'd; most of 'em having been reduc'd to Ruins. or converted into Mosques.

M. *Frezier*, Engineer to the *French* King, and F. *Cordemoy*, a Regular Canon, have disputed the Form of the antient and modern *Churches*, and the best manner of building them, with a good deal of Learning, in the *Journals de Trevoux*.

For the Form of the *Latin Churches*, tho it be various, yet may all the Variety be reduc'd to two Heads; *viz.* those in form of a Ship, and those of a Cross.

CHURCH-*Yard*, a sacred Place, destin'd for the Interment of the Deceas'd. See BURIAL, FUNERAL, &c.

In the primitive Times, the Christians held their Meetings in *Church-yards*, as we are inform'd by *Eusebius*, Lib. vii. and *Tertullian*, who calls those *Church-yards* where the People us'd to meet to pray, *Areas*. *Eusebius* adds, that *Valerian* having confiscated the *Church-yards*, and Places destin'd for the Worship of God; *Gallian* restor'd 'em by a publick Rescript, rehears'd by the same Author. From these Passages, it seems as if *Church-yards*, and Places of Worship, were us'd indifferently for the same thing.

The Heathen Writers frequently upbraid the primitive Christians for their meeting in *Church-yards*; as if they serv'd other Purposes besides those of Religion. The Council of *Elvira* prohibits the keeping of Tapers lighted in *Church-yards*, during the Day-time; and by another Canon, the Women from passing the Night watching in *Church-yards*.

The Custom of blessing *Church-yards* is of an old standing: the Method was, for the Bishop to go round it with his Crosier, or pastoral Staff, and to sprinkle it with some consecrated Fluid. *Lobineau* says, the Holy Water-Pot was carry'd before him.

Antiently, all were bury'd in *Church-yards*; none in *Churches*. From the Bodies of Martyrs, &c. being deposited here, the Christians chose particularly to build their *Churches* in them, when *Constantine* gave them the liberty: and hence *Tillemont* derives that Custom which still obtains in the *Romish Church*, never to consecrate any Altar, without depositing in it the Relicks of some Martyr.

*Chorier* observes, that under *Church-yard*, *Cœmeterium*, κοιμητηριον, was antiently comprehended, not only the strict Dormitory, or Place where the Dead were dispos'd; but all the Lands which encompass'd the Parish-*Churches*, and were contiguous to the real *Churches*. Perhaps it might be added, that all the *Church* Domains were compriz'd under *Church-yard*. This will best account for that Confiscation of the *Church-yards*, charg'd on *Valerian*.

CHURCH-SCOT, or CHURCHESSET, a Payment, or Contribution, by the *Latin* Writers frequently call'd *Primitiæ seminum*; being, at first, a Quantity of Corn, paid to the Priest on St. *Martin*'s Day, as the First-Fruits of Harvest. See PRIMITIÆ, and FIRST-*Fruits*.

This was enjoin'd by the Laws of King *Malcolm* IV. and *Canut*. c. 10. But after this *Church-Scot* came to signify a Reserve of Corn-Rent paid to the Secular Priests, or to the Religious; and sometimes was taken in so general a Sense as to include Poultry, or any other Provision that was paid in kind to the Religious. See TITHES.

CHURCH-*Government*, *Discipline*, &c. See ECCLESIASTICAL *Government*, &c.

CHURCH-*Reves*. See CHURCH-*Wardens*.

CHURCH-*Wardens*, antiently call'd CHURCH-*Reves*, are Officers chosen yearly by the Parson and his Parishioners, according to the Custom of the Place.

Their Business is to look to the *Church*, *Church-yard*, *Church-Revenues*, &c. to observe the Behaviour of the Parishioners with regard to Faults that come under the Jurisdiction of the Ecclesiastical Court; to present scandalous Livers to the Bishop; take care none preach without Licence, &c.

The *Church-Wardens* are a kind of Corporation; and are enabled by Law to sue and be sued for any thing belonging to the *Church*, or the Poor of the Parish. See PARISH.

CHYLE, or CHYME, in the Animal Oeconomy, a whitish Juice, into which the Food is immediately converted by Digestion, or, more properly, by that Branch thereof call'd *Chylification*. See CHYLIFICATION, DIGESTION, &c.

The *Chyle*, Dr. *Drake* observes, is nothing but a Mixture of the oily and aqueous Parts of the Food, incorporated with the saline ones; which, while they yet remain mix'd with the grosser Parts in the Stomach, make a thick, whitish, partly fluid Mass, called *Chyme*: which, as soon as it is reduc'd to a Consistence loose enough to be obedient to the Pressure and peristaltic Motion of the Stomach, is gradually thrust out at the *Pylorus* into the *Duodenum*, and denominated *Chyle*.

Thus is the *Chyle* begun to be form'd in the Stomach; it is perfected in the Intestines by the Mixture of the Bile and the pancreatic Juice; and is thence receiv'd into the Lacteal Veins, which carry it to the *Receptaculum Chyli*, or *Pecquets* Reservatory: thence it passes into the Thoracic Duct, which terminates in the left Subclavian Vein: In this Vein, the *Chyle* first begins to mix with the Blood; into which it is afterwards converted by the Action called *Sanguification*. See BLOOD.

The Antients suppos'd the *Chyle* was chang'd into Blood in the Liver; others of 'em in the Heart: but the Moderns, with more reason, take the Change to be effected by the Blood it self, in all the Parts of the Body. See SANGUIFICATION.

Some take *Chyle* to be the immediate Matter of Nutrition; others the Blood. See NUTRITION.

The Word comes from the *Greek* χυλος, *Juice*.

Dr. *Lister* is of Opinion, that in the Digestion of Meat in the Stomach, there is made a Separation, or Solution of urinous Salts, no otherwise than in the rotting of Plants, or Animals: that the *Chyle* is highly impregnated with this urinous Salt; that it owes its whiteness to the Fermentation it acquires from that Mixture: That the salt *Chyle* is convey'd into the venal Blood, and with it enters the Heart; and is thence thrown out *Chyle*, as it comes in, by a continual Pulsation, into the Arteries: that as oft as it enters the Emulgent Arteries, it leaves behind part of its saline Liquor, or Urine, and consequently abates of its Colour: That when sufficiently freed of its Salts, it becomes a *Lympha*; which seems to be nothing else but the Residue of the *Chyle* not yet converted into Blood; as not yet sufficiently depurated of its saline Particles. See LYMPHA.

CHYLIFICATION, the Formation of the *Chyle*; or the Act whereby the Food is chang'd into *Chyle*. See FOOD, and CHYLE.

*Chylification* is begun by comminuting, or breaking the Aliment in the Mouth, mixing it with *Saliva*, and chewing it with the Teeth. See MASTICATION.

By such means, the Food is reduc'd into a kind of Pulp, which falling thro' the *Oesophagus* into the warm Stomach, mixes with the Juices thereof; and is thus diluted, begins to ferment, or putrefy, and assumes a very different form from what it had before; growing either acid or rancid.

Here it mixes with a Juice separated from the Blood by the Glands of that Part, whose Excretory Ducts open into the Stomach; as also with the Remains of the former Aliment: and thus it becomes better macerated, diluted, dissolv'd, and acquires still a greater likeness to the Animal Fluids, and is called *Chyme*. See CONCOCTION.

Add to this, that the fleshy Membrane of the Stomach continually contracting and pressing its Contents by its peristaltic Motion, occasions a more intimate Mixture, and by degrees works out the more fluid Parts thro' the *Pylorus* into the *Duodenum*; along the Sides whereof, and the rest of the *Intestina Tenuia*, the Lacteals are planted; into the minute Orifices whereof, the finer Parts of the Mass is receiv'd. See PERISTALTIC *Motion*, INTESTINES, and LACTEALS.

The Fabrick of the Stomach being consider'd, the Heat of the circumambient Parts, the Pulsations of innumerable Arteries, the great Stroaks of the *Aorta* underneath, the constant Compression of the *Diaphragma* and Abdominal Muscles; it must necessarily follow, that the finer Parts of the Aliment will be first expell'd the Stomach; and that the grosser will remain; till, by the repeated Action of the Fluids, and the Contraction and Pulsation of the Solids, they also become fine enough to go off: thus is the Stomach left empty; and by means of its muscular Coat, reduc'd to a State of Contraction, and Appetite renew'd. See HUNGER.

Thus will even the fleshy Membranes, Cartilages, &c. of Animals fed on, be squeez'd, and oblig'd to give out their Juices; and thus is a Fluid obtain'd, that shall have in some measure the same Properties with those of our Bodies.

The Juice being got thro' the *Pylorus* into the Intestines, its Liquefaction is still promoted by its mixture with two other Dissolvents, the pancreatic Juice and the Bile; which divide and subtilize those Parts that were left too gross: and by the peristaltic Motion of the Guts it is protruded forwards. In the Passage thro' the small Intestines, the finer Part of the Mass, which we call the *Chyle*, enters the Orifices of the Lacteal Veins of the first Kind, wherewith the whole Mesentery is intermix'd; which either alone, or together with the Mesaraic Veins, discharge themselves into the Glands at the Basis of the Mesentery.

Then the *Chyle* is taken up by the Lacteals of the second Kind, and convey'd into Glands between the two Tendons of the Diaphragma, known heretofore under the Name of the *Lumbary* Glands, now call'd *Pecquet's* Reservatory; whence it is carry'd to the Heart by the Thoracic Duct and the Subclavian Vein; wherein it begins to be mix'd with the Blood, and to circulate, and in time become assimilated thereto. See CIRCULATION, ASSIMILATION, &c.

CHYLOSIS, in Medicine, the Action whereby the Aliment is converted into *Chyle*, or *Chyme*, in the Stomach, &c. whether it be by a Ferment in the Stomach, or the contractile Force of the Stomach, or both. See CHYLIFICATION, and DIGESTION.

CHYME, an Animal Juice, the same with that commonly call'd *Chyle*. See CHYLE.

Some, however, distinguish between *Chyme* and *Chyle*; restraining the Word *Chyme* to the Mass of Food, &c. while in the Stomach, e'er it be sufficiently comminuted and liquefy'd to pass the *Pylorus* into the *Duodenum*, and thence into the Lacteals, to be further diluted and impregnated with the pancreatic Juice; where it commences *Chyle*.

CHYMISTRY, or more properly CHEMISTRY, the Art of separating the several Substances whereof mix'd Bodies are compos'd, by means of Fire; and of composing new Bodies in the Fire, by the Mixture of different Substances or Ingredients. See FIRE.

The great Object of *Chymistry*, is to analyse, or decompound natural Bodies; reduce them to their first Principles; discover their hidden Virtues, and demonstrate their inner Contexture, or the Centre, as they call it, wherein natural Substances concur. In a word, *Chymistry* is the Anatomy of natural Bodies, by means of Fire; which is the Definition *Hanneman* gives us of the Art.

The very learned *Boerhaave* defines *Chymistry* very scientifically: 'An Art whereby sensible Bodies contain'd in 'Vessels, or capable of being contain'd therein, are so 'chang'd, by means of certain Instruments, and principally 'Fire, that their several Powers and Virtues are thereby 'discover'd, with a View to Philosophy, Medicine, &c.

This Definition appears very prolix and circumstantial, and more like a Description than a Definition; but with all his Endeavours, he assures us, he could not frame a shorter, that would express the full Scope, Object, and Instruments of *Chymistry*, so as to distinguish it from every other Art: which is a Point all the Writers of *Chymistry* have stumbled at.

For *Chymistry* cannot justly be call'd the Art *of resolving Bodies*, as *Regius*, *Paracelsus*, &c. define it; since Mechanicks will also do that: Nor is the Matter mended, by saying, It is the Art *of analysing Bodies by Fire*; as *Helmont* has done: nor *by Salt*, as others would have it. These Definitions include only a Part, instead of the whole. And with as little Propriety is it term'd, The Art of *separating the Pure from the Impure*; inasmuch as it compounds as well as separates, and frequently mixes the Pure with the Impure.

*Chymistry*, on this footing, appears a very extensive Art: Its Object, or the *Materia Chymica*, is all sensible Bodies, capable of being contain'd in Vessels; and is accordingly divided into three Kingdoms, *Fossil*, *Vegetable*, and *Animal*. See BODY, FOSSIL, VEGETABLE, &c.

The Operations of *Chymistry*, include all the Changes produc'd in Bodies by natural Agents or Instruments, *viz. Decoction*, *Infusion*, *Exhalation*, *Calcination*, *Extraction*, *Distillation*, *Crystallization*, &c. See OPERATION, and ELEMENT; see also DECOCTION, INFUSION, EXHALATION, DISTILLATION, CALCINATION, EXTRACTION, &c.

The Effects, or Productions of *Chymistry*, may be reduc'd to *Magisteries*, *Extracts*, *Tinctures*, *Elixirs*, and *Clyssus's*. See MAGISTERY, EXTRACT, TINCTURE, ELIXIR, &c.

The *Instruments, or Agents of Chymistry*, whereby its Operations are perform'd, are *Fire*, *Water*, *Air*, *Earth*, *Menstruums*, and Instruments properly so call'd, as *Alembics*, *Cucurbits*, *Retorts*, *Pelicans*, *Furnaces*, and *Lutes*. See FIRE, AIR, WATER, EARTH, MENSTRUUM, ALEMBIC, CUCURBIT, RETORT, FURNACE, and LUTE.

*Chymistry* is an Art of very great Antiquity, and is held by some very learned Persons to have been practis'd in the Antediluvian World. *Cham*, the Son of *Noah*, is commonly held to have been its Inventor, from whom it is suppos'd to have taken its Name. Others refer the Invention to *Tubal Cain*, whom the Scripture records as the Inventor of Instruments of Brass and Iron. This is pretty certain, that some of the highest and most difficult Things in *Chymistry*, must have been known by him; among which are the separating and purifying of Copper and Iron, the making of Brass, &c. See COPPER, IRON, &c.

The first mention we find made of the Art, is in *Zozimus*, the *Panopolitan*, who lived about the Year of Christ 400. 'In the Sacred Writings, says that Author, we find 'certain *Genii* spoke of, who had commerce with Women. '*Hermes* says as much in his Books upon Nature; and 'scarce any Author but has some Footsteps of this Tradi- 'tion. These *Genii*, intoxicated with the Love of Wo- 'men, discover'd 'em all the Secrets of Nature; and 'taught 'em abundance of Things unfit for 'em to know: 'for which reason they were banish'd from Heaven. The 'Book wherein their Secrets was contain'd, was call'd *Che-* '*ma*; and hence the Name *Chemia*, or *Chymia*.'

The Text of Scripture *Zozimus* here refers to, is that Passage in *Moses*, *The Sons of God saw the Daughters of Men, and took 'em to Wife.*

This Antediluvian Origin of *Chymistry* is confirm'd by *Tertullian*: 'The Angels that fell, says that Father, dis- 'cover'd Gold and Silver to Men, with the Arts of working 'em, of dying Wool, &c. for which reason they were ba- 'nish'd, as is related by *Enoch*.'

*Borrichius* looks on these Passages as authentic; but adds, that *Enoch* was mistaken, for that the Angels he speaks of were not real Angels; but the Descendants of *Seth* and *Tubal Cain*, who degenerating from their Fathers, gave themselves up to criminal Pleasures with the Women descended from *Cain*; and in the Course of their Intrigues, divulg'd the Secrets God had trusted 'em withal.

Be this as it will, *Chymistry*, no doubt, was first practis'd in *Egypt*. According to *Moses*, *Tubal Cain* should be the first Inventor. Profane Authors refer it to *Vulcan*; and some of the latest and best Criticks endeavour to shew, that *Tubal Cain* and *Vulcan* were the same; as, indeed, there is found a great resemblance between their Names.

After *Tubal Cain*, the first *Chymist* we read of is *Moses*; whose Skill in *Chymistry* is incontestable, from his burning and pulverizing the Golden Calf the *Israelites* had set up, and giving it the People to drink. There is scarce a more difficult Operation in all *Chymistry*, than to make Gold potable. See GOLD.

*Chymistry* had the common Fate of the other Arts, at the Declension of the Eastern Empire; and lay bury'd and forgot till the Time of *Roger Bacon*, who retriev'd it. He was follow'd by *Lully*, *Ripley*, *Basil Valentine*, *Paracelsus*, *Van Helmont*, *Glauber*, *Boyle*, *Lemery*, *Homberg*, &c. by whom the Art has been carry'd to its present degree of Perfection.

The first *Chymists* confin'd themselves to Metals: In these latter Ages, the Bounds of *Chymistry* have been greatly enlarg'd; and Plants, Animals, Minerals, &c. have been taken into it.

'Tis but of late that *Chymistry* has been apply'd to the Preparation of Medicines: *Basil Valentine*, and *Arnoldus de Villa Nova*, seem to have been the first that attempted it. *Paracelsus* and *Van Helmont* carry'd it to such a length, as to render Medicine almost wholly *chymical*. See MEDICINE.

*Chymistry* is divided into *Metallurgia*, *Alchymia*, *Chymical Pharmacy*, and *Chymical Philosophy*. See METALLURGIA, ALCHYMIA, &c.

Criticks are divided as to the Etymology of the Name *Chymistry*: It is usually deriv'd from the *Greek* χυμὸς, *Juice*; or from χέειν, *to melt*.

*Boerhaave*, and others, more justly derive it from the Egyptian *Chema*, or *Kema*, black; and write it *Chemia*, not *Chymia*.

Others, making *Cham* the Inventor of *Chymistry*, derive the Term from his Name; supporting their Etymology on the Signification of the Word חם *Cham*, which in the *Hebrew* signifies *heat*, *hot*, *black*; all of them bearing some relation to the Operation of *Chymistry*.

*Chymistry* is also known under various other Names: It is sometimes call'd the *Hermetical Art*, from a Supposition of its being invented by *Hermes Trismegistus*: See HERMETIC. Others call it, the *Egyptian Art*, from the People among whom it was first practis'd: Others the *Sacred*, *or Divine Art*; *Poiesis*; the Art of *making Gold*, &c. Others call it the *Spagyric* Art; *Paracelsus* the *Hyssopic* Art: others *Pyrotechnia*, &c. See SPAGYRIC, HYSSOPIC, PYROTECHNIA, &c.

When the *Chymists* would express the most sublime Parts of their Art, they prefix the *Arabic* Particle *Al* to the Word *Chymia*, or *Chymistry*, and thus form *Alchymy*. See ALCHYMY.

Some Authors observe, that *Diocleſian*, after the taking of *Alexandria*, order'd all the Books of *Chymistry*, antiently wrote by the *Egyptians*, for making Gold and Silver, to be sought out and burnt; that they might not have the Power of enriching themselves by this Art, or of putting themselves, by this means, into a Condition of revolting.

Authors on the Subject of *Chymistry* are very numerous: *Borel* has publish'd a Catalogue of most of 'em, under the Title of *Bibliotheca Chymica*; containing the Names of above ten thousand. *Boerhaave* is the latest, fullest, and infinitely the best; he has given both the History, Theory, and Practice, in the finest, most orderly, and scientifical Way in the World. Dr. *Friend* has reduc'd *Chy-*

*mistry* to *Newtonianism*, and accounted for the Reasons of the Operations on Mechanical Principles.

CHYMOSIS, in Medicine, the Act of making or preparing *Chyme*. See CHYME.

*Chymosis* is particularly us'd for the second of the Concoctions made in the Body; being a repeated Preparation of the most impure and gross Parts of the Chyle, which being turn'd back by the Lacteals, is imbib'd by the Meseraics, and thence carry'd to the Liver, to be there elaborated, purify'd, and subtiliz'd afresh. See CONCOCTION.

'Tis of this, according to *Rogers*, that the Animal Spirits are form'd.

The Word comes from χυμὸς, *succus*, of χέω, *fundo*, I melt.

CHYMOSIS, or CHEMOSIS, is also us'd in Medicine, for an Inflammation of the Eyelids, which turns out their inside to sight.

The Word comes from the *Greek* κυνέω, *hisco*.

CICATRICULA, in Natural History, a little whitish Speck, in the Coat of the Yolk of an Egg; wherein the first Changes appear towards the Formation of the Chick. See YOLK.

The *Cicatricula* is what is commonly call'd the *Treddle* of the Egg. See EGG.

CICATRISIVE, in Medicine, is apply'd to such Medicines as are very Desiccative; and on that account aid Nature to repair the Skin, and to form a *Cicatrix*, or *Eschar*. See CICATRIX.

Such are *Armenian* Bole, Pouder of Tutty, the Unguent *Diapompholigus*, *desiccativum Rubrum*, &c.

*Cicatrisive* Medicines are otherwise call'd *Escharotics*, *Epuloticks*, *Incarnatives*, *Agglutinants*, &c. See EPULOTIC, ESCHAROTIC, INCARNATIVE, &c.

CICATRIX, in Medicine, &c. a little Seam, or Elevation of callous Flesh, rising on the Skin, and remaining there after the healing of a Wound, &c. ordinarily call'd a Scar, or Eschar. See ESCHAR, WOUND, &c.

The *Cicatrix* is the same as to the joining of the fleshy Parts, as a *Callus* is to the Bones. See CALLUS.

In young Infants, these Callosities, or Scars, sometimes much diminish, and oftentimes quite vanish when come to Age, as is particularly observ'd in the Pits of the Small-Pox: and, in growing, they are sometimes observ'd to change their Situation.

Some derive the Word from *quasi circa cutem*: others fetch *Cicatrix* from *quasi Occæcatrix*, the *Cicatrix* being only *obductio vulneris*, the covering up, or hiding of the Wound: but 'tis better deriv'd from *Cæcatrix*, which has the same force; of the Verb *Cæcare*, to blind.

CICUTA, a vegetable Poison, celebrated both among Antients and Moderns. See POISON.

The modern *Cicuta* is the Plant *Hemlock*; whereof there are two Kinds: the *Cicuta*, absolutely so call'd, or *Cicuta major*; and *Cicuta minor*.

The first grows in Places a little moist, in the Shade, among old Ruins, or along Roads.

So many unhappy Effects have been perceiv'd from it, that its Use, internally, is by no means to be recommended: And yet some Persons boast of it as a powerful Sudorific. Externally it may be apply'd, to resolve Wens, and Hardnesses of the Spleen and Liver. It is the Base of the Plaister which bears its Name.

The Physicians have generally rank'd it among the cold Poisons; but the later Writers, with more justness, regard it as a Dissolvent, or hot Poison. The Reasons they give, as related by *Wepfer*, are, that it bites the Tongue; that the Effluvia it yields are hot, and arise from a volatile Salt, and an impure Sulphur; that the Madness it occasions, as well as the other Sympoms, shew a great activity of Parts; and that if the Blood be found coagulated by it after Death, Spirit of Wine does the same.

The *lesser Cicuta* is not less dangerous than the *greater*; it is ever suppos'd more violent, as well as more hasty in its Operation.

Several Persons have been render'd foolish, by eating Porridge wherein *Cicuta* has been us'd instead of Parsly. It has much such an Enmity to the Brain, as *Cantharides* have to the Bladder; and *Læpus Marinus* to the Lungs.

The *Cicuta* of the Antients, is a Secret which is now scarce possible to be discover'd: it was call'd *Cicuta Aquatica*, and was of the Umbelliferous Tribe. *Wepfer*, in an express Treatise on the Subject, will have it the *Sium Erucæ folio C. B.*

CICUTA is also us'd, chiefly, among the Antients, for a Juice, or Liquor, express'd from the Plant *Cicuta*. This *Cicuta* was the common Poison wherewith their State-Criminals were put to death: *Socrates* drank the *Cicuta*.

*Plato*, in his Dialogue on the Immortality of the Soul, observes, that 'The Executioner advis'd *Socrates* not to 'talk, for fear of causing the *Cicuta* to operate too slowly.' M. *Petit*, in his *Observationes Miscellaneæ*, remarks, that this Advertisement was not given by the Executioner out of Humanity, but to save the *Cicuta*: for he was only allow'd so much *per Ann.* which if he exceeded, he was to furnish at his own Expence. This Construction is confirm'd by a Passage in *Plutarch*: The Executioner who administer'd the *Cicuta* to *Phocion*, not having enough, *Phocion* gave him Money to buy more; observing, by the way, that it was odd enough, that at *Athens* a Man must pay for every thing, even his own Death.

CIDER, a brisk, tart, cool Liquor, prepar'd from Apples.

*The Manner of making* CIDER *is as follows.*

The Fruit is first ground, or stamp'd, and the Juice squeez'd out in a Press; then 'tis strain'd thro' a Sieve, or other Filtre, and tunn'd up: the Vessel not to be full. For two or three Days it is to be stopp'd loosely, then quite clos'd with Clay. Henceforward, a small Quantity to be drawn out every Day for some Weeks, till such time as it be suppos'd pretty clear; then 'tis pierc'd, to see how fine it is: the Summer Fruit after a Month; the Gennet-Moil, after the first Frosts; the Redstreak not till after *January*; and the other Winter Fruits about the same time.

If it ben't now found fine enough, it stands a Month longer; and if even then it be defective, 'tis rack'd off like Wine, so as to keep out the Air.

Some, instead of racking, fine it with Ising-glass, steep'd in Whitewine, and dissolv'd over the Fire; this they boil in a quantity of the Liquor to be fined, and then mix it with the rest: and others, instead of dissolving the Ising-glass over the Fire, let it steep in the Whitewine for about a Month, in which time it dissolves into a Gelly of it self: a quantity of this is mix'd with some of the Liquor, and the whole beat to a froth; then mingled, together with some Broom, with the rest. The Liquor once fine, 'tis drawn out, or bottled off, as occasion requires. See CLARIFYING.

'Tis observ'd, that a Mixture of Fruits is a great Advantage to *Cider*; the worst Apples, mix'd together, making as good *Cider* as the best alone: always observing, however that they be of equal ripeness.

The best Mixture, according to Mr. *Worlidge*, is that of Redstreaks with Golden-Rennets: Bitter Apples spoil the *Cider*; but the Juice of them and of Crabs, yield as good Spirits as the best Apples, when fermented: neither the sour nor the bitter Taste arising with the Spirit upon Distillation.

If the Apples be pounded in a Stone Mortar, which is the Custom of some, the Kernels and Stalks are bruis'd with them, which gives the Liquor an ill Savour.

CIDERKIN, or *Purre*, is a Liquor made of the Murk, or gross Matter remaining after the *Cider* is press'd out.

For this purpose, the Murk is put up in a large Fat, with a proper Quantity of boil'd Water, which has stood till it be cold again: if half the Quantity of Water be us'd that there was of *Cider*, 'twill be good; if the Quantities be equal, the *Ciderkin* will be small. The whole is left to infuse forty eight Hours, then well press'd: What is squeez'd out by the Press is immediately tunn'd up and stopp'd; 'tis fit to drink in a few Days.

It clarifies of it self, and serves in Families instead of Small Beer. It will keep, if boil'd after pressure, with a convenient quantity of Hops.

CILIA, in Anatomy, the Hairs wherewith the *Palpebræ*, or Eyelids are fring'd; especially the Upper, which is larger and stiffer than that of the Under. See PALPEBRA.

Their Use seems to be, to break the too fierce Impression of the Rays of Light; as also to keep out Flies and Moats, and other Things floating in the Air, which might annoy the Eye.

These *Cilia* spring from a small row of Glands, which cover a thin tender Cartilage, edging each Eyelid, and serving as a kind of Rod, or Ring to stretch 'em upon.

CILIARE, in Anatomy, an Epithet given to a Part of the Eye, call'd *Ligamentum Ciliare*; because of its resembling the *Cilium*, or Hair of the Eyelids. See LIGAMENT.

The *Ligamentum Ciliare*, call'd also *Processus Ciliaris*, consists of a range of black Fibres dispos'd circularly; having their rise in the inner Part of the *Uvea*, and terminating in the prominent Part of the Crystalline, which they incompass round.

Anatomists generally imagine their Use to be to suspend the Crystalline in the Globe of the Eye, to lengthen or shorten its Figure, and bring it nearer to or further from the Uvea; and even to open or contract the Pupil as occasion requires, *i. e.* as near or remote Objects, obscure or bright Objects are to be view'd. See CRYSTALLINE, and PUPIL.

The Motion of the Pupil, some say, is effected by the circular and strait Fibres of the Uvea; others attribute it to the *Ciliary* Ligament: yet, I have no great doubt, but they both concur in the same Action; and that the *Ligamentum Ciliare* doth, at the same time the Pupil opens or shuts, dilate or compress the Crystalline, and bring it nearer, or carry it farther off the *Retina*. *Derham Phys. Theol.*

M. *Mariotte* denies the *Ligamentum Ciliare* to have any connection with the Cryſtalline, or to ſerve for any purpoſes thereof. See VISION.

CILIARIS, in Anatomy, a Muſcle, otherwiſe call'd *Orbicularis Palpebrarum*. See ORBICULARIS.

CIMA, or *Sima*, in Architecture, a Member or Moulding, call'd alſo *Gula*, and *Cymatium*. See GULA, and CYMATIUM.

CIMIER, in the *French* Heraldry. See CREST.

CINCTURE, or CEINTURE, in Architecture, a Ring, Liſt, or Orlo, at the top and bottom of the Shaft of a Column; dividing the Shaft, at one end, from the Baſe; and at the other from the Capital. See SHAFT, COLUMN, *&c.*

That at bottom is peculiarly call'd *Apophyges*; as if the Pillar took its height hence: and that at top *Colarin*, or Collar. See APOPHYGES, and COLARIN.

The *Cincture* is ſuppos'd to be an Imitation of the Girts, or Ferrils, antiently us'd to ſtrengthen and preſerve the primitive wooden Columns. See ORDER.

The Word, in its original *French*, ſignifies *Girdle*; of the Latin *cingo*, I gird.

CINERATION, in Chymiſtry, the reduction of Wood, or any other combuſtible Matter into *Aſhes*, by means of Fire. See ASHES, CALCINATION, *&c.*

This, others call *Cinefaction*.

CINERES. See ASHES.

CINERES *Clavellati*, among Chymiſts, are the Aſhes of Tartar, or the Lees of Wine burnt. See TARTAR.

CINERITIOUS, a Term apply'd to Things reſembling Aſhes; particularly in point of Colour and Conſiſtence.

Thus, the Cortical Part of the Brain, is alſo call'd the *Cineritious* Part. See CORTICAL.

CINNABAR, or CINOPER, in Natural Hiſtory, a Mineral Stone, red, heavy, and brillant; found chiefly in the Quickſilver Mines; call'd alſo *Vermilion*. See FOSSIL, and MERCURY.

Many, with good reaſon, eſteem this the *Minium* of the Antients; tho a very different thing from the modern *Minium*. See MINIUM.

The ordinary Vermilion it ſelf, is nothing elſe but *Cinnabar* ground up with Spirit of Wine and Urine. See VERMILION.

Some have imagin'd *Cinnabar* to be Dragons-Blood, gather'd, as *Pliny* and *Solinus* have it, when the Dragon and Elephant fight together: This Fable is refuted by *Dioſcorides* and *Scaliger*. See DRAGONS-BLOOD.

*Cinnabar* is either *Native*, or *Factitious*.

The *Native*, or Mineral *Cinnabar*, or Vermilion, which is that abovemention'd, is found in moſt Places where there are Quickſilver Mines; yet, 'tis true alſo, that it has Mines its own: thoſe in *Spain* are very famous; the *French* too have theirs, in *Normandy*.

It may be eſteem'd as Marcaſſite of Quickſilver, or rather, as Quickſilver petrify'd and fix'd, by means of Sulphur, and a ſubterraneous Heat: Chymiſtry being found to reduce it without much trouble or loſs, to the Nature of Mercury. Each Pound of good *Cinnabar* yields fourteen Ounces of Mercury. Accordingly, the principal Property and Uſe of this Mineral, is to yield a moſt excellent Mercury; and that which the Alchymiſts maintain to be the beſt diſpos'd for attaining to the Tranſmutation of Gold.

The beſt Mineral *Cinnabar* is of a high Colour, brillant, and free from the Stone.

It is us'd by Phyſicians in Venereal Caſes, and others, occaſion'd by ſharp Seroſities. It's alſo eſteem'd a good Cephalic, and accounted of ſervice in Epilepſies, and other nervous Diſtempers: Add, that it is reckon'd of efficacy in cutaneous Caſes, as the Scurvy.

*Factitious*, or Artificial *Cinnabar*, or Vermilion, is form'd of a Mixture of Mercury and Sulphur, ſublimed, and thus reduced into a kind of Stone.

The beſt is of a high Colour, full of Fibres, like Needles.

*The Method of preparing Factitious* CINNABAR is thus.

They take three Ounces of Sulphur, and four of Quickſilver; theſe being well mix'd, are ſet on the Fire, till part of the Sulphur be conſum'd, and the Pouder remain black. 'Tis then ſublim'd once or twice in open Pots; at bottom of which remains the *Cinnabar*, very heavy, and ſtreak'd with Lines, or Needles; ſome red, others brillant, like Silver.

This ſerves for the ſame medicinal Purpoſes with the *Native Cinnabar*: beſides which, 'tis likewiſe us'd by the Farriers, to make Pills for their Horſes; and by Painters, as a Colour: it being a very vivid red; but drying with ſome difficulty.

*Cinnabar*, or Vermilion, is render'd more beautiful by grinding it with Gum-Water and a little Saffron: thoſe two Drugs preventing its growing black. See VERMILION.

There is likewiſe a *blue Cinnabar*, made by mixing two Parts of Sulphur with three of Quickſilver, and one of Sal Ammoniac: theſe being ſublimed, produce a beautiful blue Subſtance; whereas Quickſilver and Sulphur alone produce a red.

The Word comes from the *Greek* κινάβρα, *the ſmell of Goats*; by reaſon, ſays *Matthiolus*, in digging a kind of Mineral *Cinnabar*, it yields ſo ſtrong a Scent, that the Diggers are oblig'd to ſtop their Noſtrils.

The Chymiſts prepare other Kinds of Artificial *Cinnabar*; as,

CINNABAR *of Antimony*, a Compoſition of Mercury, common Sulphur, and crude Antimony ſublimed. See ANTIMONY.

It is held a Diaphoretic, and Alterative; and is us'd in Scrophulous and other chronic Caſes.

CINNAMON, an agreeable aromatic Spice, furniſh'd by the *Eaſt-Indies*. See SPICE.

*Cinnamon* is allow'd to be the Bark of a Tree, growing in the Iſlands of *Ceylon*, *Java*, and in *Malabar*.

The *Cinnamon* Tree, call'd by the Natives *Corunda Gauhah*, grows in Woods, like other Trees; and is but little regarded by 'em. It never grows high: Its Leaves reſemble thoſe of the Laurel, both as to Subſtance, and Colour. When they firſt begin to open, they are red as Scarlet; and if rubb'd between the Hands, yield an Odour more like that of Cloves than of *Cinnamon*. The Fruit reſembles an Acorn, or Olive; and has neither the Smell nor Taſte of the Bark. When boil'd in Water, it yields an Oil, which, as it cools and hardens, becomes as firm and white as Tallow. Its Smell is agreeable, and they make Candles of it, which are only allow'd to be burnt in the King's Palace. The Wood is of no Virtue at all.

The chief Virtue of the *Cinnamon* Tree is in its Bark; which, when green, appears to be double: its exterior Surface being grayiſh, and the inner of the common *Cinnamon* Colour.

'Tis then diviſible into two Barks of different Colours; but theſe drying together, become inſeparable, and paſs for the ſame Bark; the grayiſh Colour changing in proportion as it dries.

When the *Cinnamon* is freſh taken from the Tree, 'tis flat, has little Taſte, Smell, or Colour; but it twiſts or convolves, as it dries, in form of a Stick, or Cane: whence the *French* call it *Cannelle*.

By thus exhaling its ſuperfluous Humidity, it acquires a ſweet briſk Smell, and a ſharp pungent Taſte. 'Tis ſaid, that after the Tree has been ſtripp'd of its Bark, in three Years it forms a new one, which is as good as the firſt: but this is not very probable.

Some hold, that the ſmall Branches of the ſame Tree make the *Caſſia*; but that muſt be a Miſtake. See CASSIA.

The Natives draw from the Roots of the Tree a Liquor, very much reſembling *Camphor*.

*Cinnamon*, to be good, muſt have a briſk agreeable Taſte, and a bright brown Colour. Its Qualities are, to heat and dry; to promote the Menſes, to fortify the Spirits, and to help Digeſtion: but its chief Uſe, in Medicine, is as an Aſtringent; with which Intention it is preſcrib'd in Diarrhæas, and Weakneſſes of the Stomach.

The *Cinnamon* of the Antients was different from that of the Moderns; they diſtinguiſh'd five Kinds of *Cinnamon*: the *Moſylitique*; *Cinnamon of the Mountain*; *black* and *branch'd Cinnamon*; another white and ſpongeous; and a fifth of leſs value, reddiſh, and of a ſtrong ſmell: as alſo a *baſtard Cinnamon*, call'd *Zinziber*: This laſt Species was antiently in very high eſteem, but is now no longer known. See ZINZIBER.

They extract an Oil from *Cinnamon*, call'd its Eſſence, or Quinteſſence, which is an excellent Cardiac: the manner of preparing it, is ſaid to be a Secret known only to the *Dutch*. The common *Cinnamon* is often adulterated with that out of which this Eſſence has been extracted.

*Cinnamon*, by means of Fire, furniſhes Waters, Extracts, and Salts; out of which are compounded Syrups, and Paſtils, call'd *Oleo Sacchara*; together with an Eſſence, that ſerves to turn all manner of Wines, white and red, into *Hypocras*.

CINNAMON-*Water*, is made by diſtilling the Bark, (firſt infus'd in Barley-Water) in Spirit of Wine, or Whitewine. See WATER.

All the *Cinnamon* conſum'd in *Europe*, comes from the *Dutch*; who have got the whole Commerce thereof in their own Hands, by becoming Maſters of the Iſle of *Ceylon*, and deſtroying all the other *Cinnamon* Trees about the Kingdom of *Cochin*.

*Clove* CINNAMON, is alſo the Bark of a Tree growing in *Braſil* and *Madagaſcar*; where it is known under the Name of *Ravendſara*. The *Portugueze* call it *Cravo de Marenhan*.

This Bark, pulveriz'd, is ſometimes ſubſtituted for real *Cloves*, tho far ſhort of 'em in reſpect of Quality. See CLOVES.

Saſſafras, or Saxafras, is ſometimes alſo call'd *Cinnamon-Wood*. See SASSAFRAS.

*White* CINNAMON, which ſome call *Coſtus Corticus*, or *Corticoſus*, or *Cortex Winteri*, *Winter's* Bark, from the Perſon's

Person's Name who first brought it into *England*; is the Bark of a Tree resembling the Olive Tree, frequent in the Island of S. *Domingo*, *Guadeloupa*, and *Madagascar*; call'd by the Natives *Fimpi*. See CORTEX.

The Bark, which dries like that of *Cinnamon*, is at first grayish, of a sharp biting Taste, like Pepper; and a Smell like Musk: as it dries it whitens.

Some use it in lieu of Nutmeg: In Medicine, it's us'd as a Stomachic, and sometimes as an Antiscorbutic.

The same Tree yields a Gum, call'd *Alouch*, or *Bdellium*, which is no disagreeable Perfum[illegible]

CINQUE-PORTS, or *Quin[illegible]ortus*, five Havens that lie on the East Part of *Eng[illegible]d*, towards *France*; thus call'd, by way of Eminence, on account of their superior Importance; as having been thought by our Kings to merit a particular regard, for their preservation against Invasion.

Hence they have a particular Policy, and are govern'd by a Keeper, with the Title of *Lord Warden of the Cinque-Ports*.

They have various Privileges granted 'em, as a particular Jurisdiction; their Warden having the Authority of an Admiral among 'em, and sending out Writs in his own Name. See WARDEN.

*Camden* tells us, that *William* the Conqueror first appointed a Warden of the Cinque-Ports; but King *John* first granted them their Privileges; and that upon Condition they should provide 80 Ships at their own Charge, for 40 Days, as often as the King should have occasion in the Wars: he being then straitned for a Navy to recover *Normandy*.

The five Ports are *Hastings*, *Romney*, *Hythe*, *Dover*, and *Sandwich*.

*Thorn* tells us, that *Hastings* provided 21 Vessels; and in each Vessel 21 Men. To this Port belong *Seaford*, *Pevensey*, *Hedney*, *Winchelsea*, *Rye*, *Hamine*, *Wakesbourn*, *Creneth*, and *Fortholipe*.

*Romney* provided 5 Ships, and in each 24 Men. To this belong *Bromhal*, *Lyde* of *Marstone*, *Dangemures*, and *Romential*.

*Hythe* furnish'd 5 Ships, and in each 21 Seamen: To this belongs *Westmeath*.

*Dover* the same Number as *Hastings*: To this belong *Folkston*, *Feversham*, and *Margate*.

Lastly, *Sandwich* furnish'd the same with *Hythe*: To this belong *Fordivice*, *Reculver*, *Serve*, and *Deal*.

CION, or CYON, or SCION, in Gardening, a young Shoot, Sprout, or Sprig, put forth by a Tree. See SHOOT.

Grafting is perform'd by the Application of the *Cion* of one Plant upon the Stock of another. See GRAFT, and ENGRAFTING.

To produce a Stock of *Cions* for Grafting, Planting, &c. the Gardeners sometimes cut off the Bodies of Trees, a little above the Ground, and only leave a Stump or Root standing: the redundant Sap will not fail next Spring to put forth a great number of Shoots. See STOCK.

In dressing dwarf Trees, a great many *Cions* are to be cut off. See DWARF; see also PRUNING.

CION, in Anatomy, is sometimes us'd for the *Uvula*. See UVULA.

CIPHER, or CYPHER, one of the Numeral Characters, or Figures; form'd thus o. See CHARACTER, FIGURE, &c.

The *Cipher* of it self implies a Privation of Value; but when dispos'd with other Characters on the left thereof, in the common Arithmetic, it serves to augment each of their Values by ten; and in Decimal Arithmetic, to lessen the Value of each Figure to the right thereof, in the same proportion. See NOTATION, NUMERATION, and DECIMAL.

CIPHER is also a kind of mystick Character, compos'd of several Letters interwove together; which are ordinarily the initial Letters of the Persons Names, for whom the *Cipher* is intended.

These are frequently us'd on Seals, Coaches, and other Moveables.

Antiently, Merchants and Tradesmen were not allow'd to bear Arms: in lieu thereof they bore their *Ciphers*, or the initial Letters of their Names, artfully interwove about a Cross; of which we have divers Instances on Tombs, &c.

CIPHER is also us'd for certain secret Characters, disguis'd and varied; us'd for the writing of Letters that contain Secrets, not to be understood by any but those between whom the *Cipher* is agreed on.

This is now reduc'd into a separate Art, call'd *Polygraphia*, and *Steganographia*; but appears to have been little known to the Antients. See STEGANOGRAPHY, &c.

*De la Guilletiere*, in his *Lacædemon Antient and Modern*, endeavours to make the antient *Spartans* the Inventors of the Art of writing in *Cipher*.

Their *Scytala*, according to him, was the first Sketch of this mysterious Art: These *Scytalas* were two Rollers of Wood, of equal length and thickness; one of them kept by the *Ephori*; the other by the General of the Army, sent on any Expedition against the Enemy.

Whensoever those Magistrates would send any secret Orders to the General, they took a slip of Parchment, and roll'd it very justly about the *Scytala* which they had reserv'd; and in this state wrote their Intentions, which appear'd perfect and consistent while the Parchment continu'd on the Roller: when taken off, the Writing was maim'd, and without connection; but was easily retriev'd by the General, upon applying it to his *Scytala*.

*Polybius* says, that *Æneas Tacticus*, 2000 Years ago, collected together twenty different Manners of Writing so as not to be understood by any but those in the Secret; part whereof were invented by himself, and part us'd before his Time.

*Trithemius*, *Bap. Porta*, *Vigenere*, and *P. Niceron* have wrote on the Subject of *Ciphers*.

As the writing in *Cipher* is become an Art; so is the reading, or unravelling thereof, call'd *Deciphering*. See DECIPHERING.

*A* CIPHER *with a single Key*, is that wherein the same Character is constantly us'd to express the same Word, or Letter: This is easily decipher'd with a little Application.

*A* CIPHER *with a double Key*, is that wherein the Alphabet, or Key, is chang'd in each Line, or each Word; and wherein are inserted Characters of no significancy, to amuse and perplex the Meaning.

The Word *Cipher* comes from the Hebrew *Sifre*, Number, Enumeration.

CIPHERING, is popularly us'd for the Art of Accompting; properly call'd *Arithmetic*. See ARITHMETIC.

CIPPUS, among Antiquaries, a little low Column, erected in the great Roads, and other Places, with an Inscription thereon; either to shew the Way to Travellers, or to preserve the Memory of something remarkable.

The *Cippi* plac'd in the Highway, for the Convenience of Travellers, were also call'd *Milliary Columns*. See MILLIARY *Column*.

*Hottinger* has an express Treatise of the *Cippi* of the *Jews*, *De Cippis Hebræorum*; wherein he takes *Cippus* for the Tomb of a Defunct. See TOMB, and TUMULUS.

CIPPUS was also us'd in Antiquity, for a wooden Instrument, wherewith Criminals and Slaves were punish'd.

CIRCENSES *Ludi*, in Antiquity, *Circensian Games*, or *Games of the Circus*, a general Term, under which were comprehended all Combats exhibited in the *Roman Circus*, of what Kind soever; whether a-foot, or on Horseback, or in a Car; Wrestling, or Boxing; with Swords, Pikes, Darts, or Arrows; against Men, or against Beasts; on the Ground, or aboard Vessels. See GAMES, and CIRCUS.

There were few but Slaves that gave the People this cruel Pleasure: it was an Exercise that would have disgrac'd People of any Account.

Some say, the *Circensian* Games were so call'd from the Latin *Circuitus*; because they were held in a Place incompass'd round with naked Swords, that the Combatants might not have an opportunity of escaping.

At first they are said to have been exhibited on the brink of the River *Tyber*, and the Ground incompass'd, to the Landward, with naked Swords.

Most of the Feasts of the *Romans* were accompany'd with *Circensian* Games; and the Magistrates, or other Officers of the Republick, frequently presented the People with them on other Occasions. See FEAST.

The grand ones were held for five Days, commencing on the 15th of *September*.

CIRCLE, in Geometry, a plane Figure, comprehended under one single Line, which returns into it self; having a Point in the Middle, from which all the Lines drawn to its Circumference are equal. See CENTRE.

Properly speaking, 'tis the Space included within the Circumference, or Periphery, that is the *Circle*: tho in the popular Use of the Word, *Circle* is frequently us'd for the Periphery alone. See PERIPHERY.

Every *Circle* is suppos'd to be divided into 360 Degrees. See DEGREE; see also CHORD, TANGENT, DIAMETER, &c.

The Area of a *Circle*, is found by multiplying the Periphery by the fourth Part of the Diameter; or half the Periphery by half the Diameter.

The Area is also found by finding a Fourth proportional to 1000,785, and the Square of the Diameter: or, to 452,355, and the Square of the Diameter. See AREA.

*Circles*, and similar Figures inscrib'd in 'em, are always as the Squares of the Diameters: So that they are in a duplicate Ratio of their Diameters; and therefore of their Radii.

A *Circle* is equal to a Triangle whose Base is equal to the Periphery, and its Altitude to the Radius. *Circles*, therefore, are in a Ratio compounded of the Peripheries and the Radii.

*To find the Proportion of the Diameter of a* CIRCLE *to its Periphery.*

Find, by continual Bissection, the Sides of the inscrib'd Polygons, till you arrive at a Side subtending any Arch, howsoever small: this found, find likewise the Side of a similar circumscrib'd Polygon; multiply each by the Number of Sides of the Polygon; by which you will have the Perimeter of each Polygon. The Ratio of the Diameter to the Periphery of the Circle, will be greater than of the same Diameter to the Perimeter of the circumscrib'd Polygon; but less than that to the inscrib'd Polygon.

The Difference of the two being known, the Ratio of the Diameter to the Periphery, is easily had in Numbers very nearly true; tho not justly so.

Thus, *Wolfius* finds it as 1000000000000000 to 3141592-6535897932. *Archimedes* fix'd the Proportion as 7 to 22. *Ludolphus à Ceulen* carries it to a much greater accuracy; finding, that putting the Diameter for 1, the Periphery is greater than 3. 14159265358979323846264338387950; but, less than the same Number, changing the last Cipher into an Unite. *Metius* gives us the following Proportion, which is the best that is express'd by small Numbers: if the Diameter be 113, the Periphery (113. 31415): 10000; that is, 355, nearly.

*To circumscribe a* CIRCLE *about a given regular Polygon:* bissect two of the Angles of the Polygon E and D, (Tab. *Geom.* Fig. 28.) by the Lines E F and D E; and on the Point of Concourse F, as on a Centre, with the Radius E F, describe a *Circle*. See CIRCUMSCRIBING.

*To inscribe any given regular Polygon in a* CIRCLE: divide 360 by the Number of Sides, to find the Quantity of the Angle E F D; which being made, in the Centre apply the Chord E D to the Periphery, as often as it will go: Thus is the Figure inscrib'd in the *Circle*. See INSCRIBED.

*Thro' three given Points, not in a right Line,* A, B, C, *to describe a* CIRCLE. On A and C strike Arches intersecting in D and E; and others, G and H; from C and B draw the right Lines D E and H G: The Point of Intersection, I, is the Centre of the *Circle*.

Hence, 1st, by assuming three Points in the Periphery, or the Arch of any *Circle*, the Centre may be found, and the given Arch be perfected. See CENTRE.

2dly, If three Points of any Periphery agree, or coincide with three Points of another; the whole Peripheries agree, and the *Circles* are equal.

3dly, Every Triangle may be inscrib'd in a *Circle*. See TRIANGLE.

In Opticks, 'tis shewn, that a *Circle* never appears truly such, unless either the Eye be directed perpendicularly to its Centre; or the distance of the Eye from the Centre, when directed obliquely, be equal to the Semidiameter of the *Circle*: in every other Case the *Circle* appears oblong; and to make a *Circle* that shall appear such, it must be oblong.

*Parallel*, or *Concentric* CIRCLES, are such as are equally distant from each other in every Point of their Peripheries; or are describ'd from the same Centre: as, on the contrary, those struck from different Centres, are said to be *eccentric*. See CONCENTRIC, and ECCENTRIC.

*The Quadrature of the* CIRCLE, or the manner of making a Square, whose Surface is perfectly and geometrically equal to that of a *Circle*, is a Problem that has employ'd the Geometricians of all Ages. See QUADRATURE.

Many maintain it to be impossible; *Des Cartes*, in particular, insists on it, that a right Line and a *Circle* being of different Natures, there can be no strict Proportion between 'em: and, in effect, we are likewise at a Loss for the just Proportion between the Diameter and Circumference of a *Circle*.

*Archimedes* is the Person who has come the nearest to the Quadrature of the *Circle*: all the rest have made Paralogisms.

*Charles* V. offer'd a Reward of 100000 Crowns to the Person who should solve this celebrated Problem; and the States of *Holland* have propos'd a Reward for the same.

CIRCLES *of the higher Kinds*, are Curves wherein $Ap^m : pM^m : M : pB$, (Tab. *Analysis*, Fig. 8.) or $Ap^m : pM^m_c :: pM^n : pB^n$.

*Cor.* I. Suppose $Ap = x$, $pM = y : AB = a$; then will $pB = a - x$. Consequently, $x^n : y^m :: y : a - x$. Hence we have an Equation that defines infinite *Circles*, *viz.* $ym + 1 = ax^m - xm + 1$; and another defining infinite other *Circles*, viz. $ym + n = (a - x)nx^m$.

*Cor.* II. If $m = 1$, then will $y^2 = ax - x^2$; and therefore a *Circle* of the first Kind is contain'd under this Equation alone. If $m = 2$, $y^2 = ax^2 - x^3$. which Equation defines a *Circle* of the first Kind.

CIRCLES *of the Sphere*, are such as cut the mundane Sphere, and have their Periphery either on its moveable Surface, or in another immoveable, conterminous, and equidistant. See SPHERE.

Hence arise two Kinds of *Circles*, *moveable*, and *immoveable*.

The first, those whose Peripheries are in the moveable Surface, and which therefore revolve with its diurnal Motion, as the *Meridians*, &c. See MERIDIAN.

The latter, having their Periphery in the immoveable Surface, don't revolve; as the *Ecliptic*, *Equator*, and its *Parallels*, &c. See ECLIPTIC, *&c.*

If a Sphere be cut in any manner, the Plane of the Section will be a *Circle*, whose Centre is in the Diameter of the Sphere. See SPHERICS.

Hence, the Diameter of a *Circle* passing thro' the Centre, being equal to that of the *Circle* which generated the Sphere; and that of a *Circle* which does not pass thro' the Centre, being only equal to some Chord of the generating *Circle*; the Diameter being the greatest of all Chords, there hence arises another division of the *Circles* of the Sphere, *viz.* into *great* and *less*.

*A great* CIRCLE *of the Sphere*, is that which divides it into two equal Parts, or Hemispheres; having its Centre in the Centre thereof. See GREAT.

Hence, all *great Circles* are equal, and cut each other into equal Portions, or Semicircles. See SPHERICS.

The *great Circles* are the *Horizon*, *Meridian*, *Equator*, *Ecliptic*, the *Colures*, and the *Azimuths*; which see in their Places, HORIZON, MERIDIAN, ECLIPTIC, *&c.*

*A lesser* CIRCLE *of a Sphere*, is that which divides the Sphere into equal Parts, and has its Centre in the Axis of the Sphere, but not in the Centre thereof. See LESSER.

They are usually denominated from the great *Circles* they are parallel to, as *Parallels of the Equator*, &c. See PARALLEL.

CIRCLES *of Altitude*, otherwise call'd *Almacantars*, are *Circles* parallel to the Horizon, having their common Pole in the Zenith, and still diminishing as they approach the Zenith. See ALMACANTAR.

They have their Names from their Use; which is to shew the Altitude of a Star above the Horizon. See ALTITUDE.

CIRCLES *of Latitude*, or *Secondaries of the Ecliptic*, are great *Circles* parallel to the Plane of the Ecliptic, passing thro' the Poles thereof, and thro' every Star and Planet. See SECONDARY.

They are so call'd, because they serve to measure the Latitude of the Stars, which is nothing but an Arch of one of these *Circles*, intercepted between the Star and the Ecliptic. See LATITUDE.

CIRCLES *of Longitude*, are several lesser *Circles*, parallel to the Ecliptic; still diminishing, in proportion as they recede from it.

On the Arches of these *Circles*, the Longitude of the Stars is reckon'd. See LONGITUDE.

CIRCLES *of Declination*, are great *Circles* passing thro' the Poles of the World. See DECLINATION.

*Vertical* CIRCLES, or *Azimuths*. See VERTICAL, and AZIMUTH.

*Diurnal* CIRCLES, are immoveable *Circles*, suppos'd to be describ'd by the several Stars, and other Points of the Heavens, in their diurnal Rotation round the Earth; or rather, in the Rotation of the Earth round its Axis. See DIURNAL.

The *Diurnal Circles* are all unequal: the Equator is the biggest.

*Polar* CIRCLES, are immoveable *Circles*, parallel to the Equator, and at a distance from the Poles, equal to the greatest Declination of the Ecliptic. See POLAR.

That next the Northern Pole is call'd the *Arctic*; and that next the Southern one the *Antarctic*. See ARCTIC, and ANTARCTIC.

CIRCLES *of Excursion*, are *Circles* parallel to the Ecliptic, and at such a distance from it, as that the Excursions of the Planets towards the Poles of the Ecliptic, may be included within it; which are usually fix'd at 10 Degrees. See SPHERE, and SPHERICS.

It may be here added, that all the *Circles* of the Sphere above describ'd, are transferr'd from the Heavens to the Earth; and thence come to have Place in Geography, as well as Astronomy: all the Points of each *Circle* being conceiv'd to be let fall perpendicularly on the Surface of the Terrestrial Globe, and so to trace out *Circles* perfectly similar to them.

Thus, the Terrestrial Equator is a Line, conceiv'd precisely under the Equinoctial Line, which is in the Heavens; and so of the rest. See EQUATOR, *&c.*

*Horary* CIRCLES, in Dialling, are the Lines which shew the Hours on Dials; tho these be not drawn circular, but nearly strait. See DIAL.

CIRCLE *Equant*, in the *Ptolemaic* Astronomy, is a *Circle* describ'd on the Centre of the Equant. See EQUANT.

Its chief Use, is to find the Variation of the first Inequality. See VARIATION.

CIRCLE *of perpetual Apparition*, one of the lesser *Circles*, parallel to the Equator; describ'd by any Point of the Sphere touching the Northern Point of the Horizon; and carry'd about with the diurnal Motion.

All the Stars included within this *Circle* never set, but are ever visible above the Horizon.

The CIRCLE *of perpetual Occultation*, is another *Circle* at a like Distance from the Equator; and contains all those Stars which never appear in our Hemisphere. See OCCULTATION.

The Stars situate between these *Circles*, alternately rise and set at certain Times. See STAR, RISING, SETTING, &c.

CIRCLES *of Position*, are *Circles* passing thro' the common Intersections of the Horizon and Meridian, and thro' any Degree of the Ecliptic, or the Centre of any Star, or other Point in the Heavens; us'd for finding out the Situation or Position of any Star, &c. See POSITION.

They are usually made six in number; and cut the Equator into twelve equal Parts, which the Astrologers call the *Celestial Houses*.

Hence some call them *Circles of the Celestial Houses*.

CIRCLE, in Physicks, is understood, among the Schoolmen, of a Vicissitude of Generations, arising one out of another.

Thus, good Concoction causes a good Habit of Body; a good Habit of Body produces Strength and Vigour; these occasion frequent Exercises; and these a good Concoction.

'Tis a celebrated Dogma of the Scotists, 'There is no 'Circle in Causes of the same Order, or Kind.'

CIRCLE, in Logick, the Fault of an Argument that supposes the Principle it should prove, and afterwards proves the Principle by the Thing it seem'd to have prov'd.

Or, a *Circle* in Logick, call'd also *Syllogistic Circle*, is when the same Terms are proved, *in Orbem*, by the same Terms; and the Parts of the Syllogism, alternately by each other, both directly and indirectly.

There are two Kinds of *Circles*; the one *Material*, the other *Formal*.

The *Formal* is that which in two reciprocal Syllogisms begs the *Medium*, which is the next Cause of the greater Extreme. This Kind is by no means to be admitted: otherwise, the same Thing becomes both prior and posterior; the Cause and Effect of it self; which is absurd.

The *Material Circle*, call'd also *Regressus*, consists of two Syllogisms, the former whereof proves the Cause by the Effect; and the latter the Effect by the Cause: This may be admitted.

CIRCLES *of the Empire*, are such Provinces, and Principalities of the Empire, as have a Right to be present at Diets. See EMPIRE, and DIET.

The Division of the Empire into six *Circles*, was establish'd by *Maximilian* I. in 1500, at *Ausburg*: twelve Years afterwards he divided it afresh, into ten *Circles*; which Partition was confirm'd by *Charles* V. at the Diet of *Nuremberg*, in 1522.

Tho the Order of these *Circles* has never been well regulated; yet, in the Imperial *Matricula*, it is as follows: The *Circle* of *Austria*, that of *Burgundy*, of the *Lower Rhine*, of *Bavaria*, *Upper Saxony*, *Franconia*, *Suabia*, *Upper Rhine*, *Westphalia*, and the *Lower Saxony*.

CIRCUIT, or CIRCUITY, in Law; a longer Course of Proceeding to recover the Thing sued for, than is needful.

Thus, if a Man grant a Rent-Charge of 10 *l.* out of his Manor, and after, the Grantee disseizeth the Grantor of the same Manor, who brings an Assise, and recovers the Land, and 20 *l.* Damages: which being paid, the Grantee brings his Action for 10 *l.* of his Rent, due during the Time of the Disseisin, and which he must have had if no Disseisin had been: This is call'd *Circuit of Action*; because, whereas the Grantor was to receive 20 *l.* Damages, and to pay 10 *l.* Rent, he might have receiv'd but 10 *l.* for Damages, and the Grantee have kept the other.

CIRCUIT, is also the Journey, or Progress the Judges take, twice every Year, thro' the several Counties of *England* and *Wales*, to hold Courts, and administer Justice, where recourse cannot so well be had to the King's Courts at *Westminster*. See JUDGE, and ASSIZE.

CIRCULAR, any thing that is describ'd, or mov'd in a round; as the Circumference of a Circle, or the Surface of a Globe. See CIRCLE.

The *circular* Form is of all others the best dispos'd for Motion; and the most capacious.

The modern Astronomers shew, that the Heavenly Bodies don't move in *Circular*, but in Elliptic Orbits. See ORBIT, PLANET, &c.

CIRCULAR *Lines*, in Mathematicks, are such strait Lines as are divided from the Divisions made in the Arch of a Circle.

Such are Sines, Tangents, Secants, &c. See SINE, TANGENT, &c.

CIRCULAR *Velocity*, a Term in Astronomy, signifying that Velocity of a Planet, or revolving Body, which is measur'd by the Arch of a Circle: as suppose by A *b*, (Tab. *Astron.* Fig. 10.) describ'd on the Centre of Attraction S.

The *circular* Velocity of a Body moving from B to C, is measur'd by the Ark B C.

CIRCULAR *Numbers*, are such whose Powers end in the Roots themselves; as 5, whose Square is 25, and Cube 125. See NUMBER.

CIRCULAR *Letter*, a Letter directed to several Persons, who have the same Interest in the same Affair; as in the Convocation of Assemblies, &c.

CIRCULAR *Sailing*, is that perform'd in the Arch of a great Circle. See SAILING.

*Circular Sailing*, of all others, goes the nearest or shortest way: and yet there are such Advantages in sailing by Rhumbs, that this latter is generally preferr'd.

CIRCULATION, the Act of *circulating*, or moving in a *Circle*. See CIRCLE.

Thus, we say, The *Circulation* of the Blood; the *Circulation* of the Sap; of the Spirits, &c. See BLOOD, SAP, SPIRITS.

As in the great World we find a perpetual and orderly *Circulation* of Waters, convey'd from the Sea by subterraneous Passages, Springs, &c. and return'd thither again by Rivers, &c. so in the little World, Man, a like Circuit is observ'd; the Blood being continually driven from the Heart, by the Arteries, to all Parts of the Body; and brought back again to the Heart by the Veins. See HEART, VEIN, and ARTERY.

CIRCULATION *of the Blood*, a natural Motion of the Blood in a living Animal; whereby that Humor is alternately convey'd from the Heart to all the Parts of the Body, by the Arteries, and return'd from the same Parts to the Heart by the Veins. See BLOOD.

The *Heart*, we have elsewhere shewn, is a Muscle, into the *Ventricles* or Cavities whereof, all the Veins discharge themselves, and from which all the Arteries arise; having, withal, a reciprocal Action of Dilatation, or *Diastole*; and Constriction, or *Systole*. See HEART, SYSTOLE, and DIASTOLE.

Now, the necessary Effect of such alternate Action, is, that the Heart, by turns, both receives and expels the Blood. The Blood expell'd out of the right Ventricle, must be carry'd thro' the *Pulmonary* Artery (which arises thence) into the Lungs; from which it must be return'd, by the *Pulmonary* Vein, to the left Ventricle, (in which that Vein terminates.) From the left Ventricle, the Blood thus imported, is by the Constriction of that Part, again expell'd into the *Aorta*, and by it distributed all over the rest of the Body; and thence return'd again to the right Ventricle by the *Cava*, which compleats the *Circulation*. See PULMONARY *Artery*, and *Vein*; CAVA, and AORTA.

The *Circulation* of the Blood, has been generally allow'd to have been first discover'd in *England*, in the Year 1628, by *Harvey*, a Physician of our own Country; tho there are several Authors who dispute it with him.

*Jansen de Almeloveen*, in a Treatise of *New Inventions*, printed in 1684, quotes several Passages from *Hippocrates*, to prove that the *Circulation* was known to him.

*Walæus*, (*Ep. ad Barthol.*) and *Carleton*, (*Oecon. Anim.*) pretend, 'twas known not only to *Hippocrates*, but also to *Plato* and *Aristotle*.

'Tis added, that the *Chinese* Physicians taught it 400 Years, e're it was spoke of in *Europe*.

Some go back as far as *Solomon*, and imagine they see some Traces of it in *Ecclesiastes*, Chap. xii.

*Bern. Genga*, in an *Italian* Treatise of Anatomy, quotes several Passages from *Realdus Columbus*, and *And. Cæsalpinus*, whereby he endeavours to prove that they admitted a *Circulation*, long enough before *Harvey*.

He adds, that *Fra. Paolo Sarpio* the famous *Venetian*, from a Consideration of the Structure of the Valves of the Veins, and other Experiments, concluded a *Circulation*. See VALVE.

*Leonicenus* adds, that *F. Paolo* durst not make known his Discovery, for fear of the Inquisition; that he therefore only communicated the Secret to *Fab. ab Aquapendente*; who, after his Death, deposited the Book he had compos'd on it in the Library of S. *Mark*; where it lay hid a long time, till *Aquapendente* discover'd the Secret to *Harvey*, who then study'd under him at *Padua*; and who, upon his return to *England*, a Country of Liberty, publish'd it as his own.

The *Circulation* of the Blood is evinc'd, from the following Considerations.

1. All the Blood of a living Animal, upon wounding any one of the larger Arteries, is, in a little time, evacuated; and that with a considerable force: as appears from the Operations of Butchers, &c.

Hence, it follows, that the Blood has a Passage from every Part of the Animal Body into every Artery: and if the whole Mass of Blood be found to move on this occasion, 'tis evident it must have mov'd before.

2. The great Quantity of Blood driven out of the Heart into the Arteries at every Pulse, makes a *Circulation* necessary; since, without it, an infinitely greater Stock of Blood must be suppos'd in the Body of a Man, than any Observation or Experiment will allow of.

For tho the Antients, who knew not this *Circulation*, imagin'd that only a Drop or two was expell'd at each Systole; which they were necessitated to suppose, to avoid the too great

great Diſtenſion of the Arteries, from a more conſiderable Influx: yet it is certain, and even demonſtrable, that there muſt needs be an Ounce, or more, driven into 'em at each time; and yet ſome compute five or ſix thouſand Pulſations in an Hour.

3. Any of the Arteries, being ty'd with a Thread, ſwell, and beat, between the Bandage and the Heart; but grow flaccid between the Bandage and the Extremities of the Body.

If now the Artery be cut between the Bandage and the Heart, the Blood ſtreams out, even to Death: If it be cut between the Bandage and the Extremities of the Body, the Quantity of Blood it yields is very ſmall.

The vital Blood, therefore, flows thro' the Arteries; and its Courſe is from the Heart towards the Extremes of the Body: and this it does in every Point of the Body, internal and external; ſtill out of a wider Part into a narrower; out of the Trunk into the Branches. 'Tis on this Principle alone, that all the Blood may be deriv'd into any Artery, and evacuated at it. See ARTERY.

4. Any of the larger Veins being bound up with a Thread, ſwell between the Extremes of the Body and the Bandage; but without beating: between the Bandage and the Heart it becomes flaccid.

If open'd in the former Part, it bleeds even to Death; if in the latter, it ſcarce bleeds at all. The Blood, therefore, flows briſkly from every Part of the Body into this Vein; and its Courſe is from the Extremes of the Body towards the Heart; from the narrower Parts of the Vein towards the wider Parts; from the Branches to the Trunk. See VEIN.

From the whole, 'tis evident, that all the Arteries of the Body are continually bringing the Blood from the left Part of the Heart, thro' the Trunks of the Arteries, into the Branches; and from thoſe to all Parts of the Body, internal and external: And on the contrary, that all the Veins, excepting the *Porta*, are perpetually bringing back the Blood from the extreme Parts into the ſmaller Branches; from thoſe it paſſes into the larger, at length into the Trunks, and thence into the *Cava*; and thro' the *Sinus Venoſus*, or Trunk of that Vein (which ends in the Cavity of the right *Auricle*) into the Heart.

The Blood arriv'd here, its Motion, or *Circulation*, is continu'd as follows.

The Auricles of the Heart being large hollow Muſcles, furniſh'd with a double Series of ſtrong Fibres proceeding with a contrary Direction to two oppoſite Tendons, the one adhering to the right Ventricle, the other to the *Sinus Venoſus*, as alſo with innumerable Veins and Arteries; by the contractile Force of theſe Auricles, the Blood will be vigorouſly expreſs'd, and drove into the right Ventricle; which, upon this Contraction, is render'd flaccid, empty, and diſpos'd to admit it. See MUSCLE.

If now the right Ventricle, thus full of Blood, by the Contraction of its Fibres preſs the Blood towards the Aperture again; the venous Blood at the ſame time pouring in, will drive it back again into the Cavity, and mix it more intimately; till riſing up againſt the *Parietes*, it raiſes the *Valvulæ Tricuſpides*, which are ſo connected to the fleſhy Columns extended on the oppoſite ſide, as that when laid quite down they cannot cloſe the *Parietes* of the right Ventricle: theſe it thruſts towards the right Auricle, till being there join'd, they ſtop the Paſſage very cloſely, and prevent any return.

By the ſame means, the ſame Blood riſes up into the three *Semilunar* Valves, plac'd in the Extremity of the other Mouth, and lying open to the Pulmonary Artery: theſe it ſhuts cloſe againſt the Sides of the Artery, and leaves a Paſſage into the Artery alone.

The venous Blood therefore, that is, the Blood of the whole Body, continually moves out of the *Sinus*, or Trunk of the *Vena Cava*, thro' the right Auricle, and right Ventricle, into the Pulmonary Artery, in a continu'd and forcible Stream.

The Blood carry'd by this Artery into the Lungs, and diſtributed by its Branches thro' the whole Subſtance thereof, is firſt admitted into the Extremities of the Pulmonary Vein, call'd *Arteria Venoſa*; whence paſſing into four large Veſſels, which unite together, it is brought to the left *Sinus Venoſus*, or Trunk of the Pulmonary Vein; by the force of whoſe muſculous Structure it is driven into the left Ventricle, which, on this occaſion, is relax'd, and by that means prepar'd to receive it.

Hence, as before, 'tis driven into the left Ventricle, which is relax'd by the ſame means; and the *Valvulæ Mitrales* opening, admit it into the left Ventricle, and hinder its reflux into the Pulmonary Vein.

From hence it is forc'd into the *Aorta*; at whoſe Orifice there are three Semilunar Valves, which alſo prevent a Reflux by cloſing the ſame.

And thus is *Circulation* effected; all the Blood ſent into the Lungs, and receiv'd into the *Arteria Venoſa*, *Sinus Venoſus*, left Auricle and Ventricle, being here continually propell'd into the *Aorta*; whoſe Ramifications are ſpread throughout all the reſt of the Body, with a violent Motion.

This Motion, in living Animals, is attended with the following Phænomena.

1. Both *Venous Sinus's* are fill'd, and grow turgid at the ſame time. 2. Both Auricles grow flaccid at the ſame time; and both are fill'd at the ſame time, with Blood impell'd by the contractile Force of its correſpondent muſcular *Venous Sinus*. 3. Each Ventricle contracts, and empties it ſelf of Blood at the ſame time; and the two great Arteries are fill'd and dilated at the ſame time. 4. As ſoon as the Blood, by this Contraction, is expell'd, both Ventricles being empty, the Heart grows longer and broader; and conſequently more flaccid and capacious. 5. Upon which, the muſcular Fibres of both *Venous Sinus's* contract, and expreſs the Blood contain'd in 'em into the Ventricles of the Heart. 6. In the mean time, the *Venous Sinus's* are again fill'd, as before; and the Auricles, &c. return into their former habitude. 7. And this Alternation continues till the Animal begins to languiſh, under the Approach of Death; at which time, the Auricles and *Venous Sinus's* make ſeveral Palpitations, for one Contraction of the Ventricle.

Thus is all the Blood, in its return from every Point of the Body, internal and external, and from every Point of the Heart and its Auricles, impell'd into the right Ventricle; out of that into the Lungs; thence into the left Ventricle; and thence thro' the whole extent of the Body; and thence again brought back to the Heart.

As to the manner of the Blood's paſſing out of the Arteries into the Veins, in order to its being return'd to the Heart; there are two Opinions.

In the firſt, the Veins and Arteries are ſuppos'd to open into each other, or to be continu'd from each other, by *Anaſtomaſes*, or Inoſculations of their Extremities. See INOSCULATION, &c.

In the latter the extreme Capillary Arteries are ſuppos'd to let out their Blood into the Pores of the Subſtance of their Parts; on whoſe Nutrition part is ſpent, and the reſt receiv'd in at the Mouths of the Capillary Veins.

Each of theſe manners muſt be allow'd to have its Place: For without the firſt, it were difficult to account for ſo quick a return of the Blood to the Heart, as in effect we find; beſides that, in ſome of the larger Veſſels, there is a confeſs'd *Anaſtomaſis*, *v. g.* in the Splenic Artery with the Splenic Vein, &c. whence Authors conclude the ſame Contrivance to hold in the leſſer Veſſels; even in the ſmalleſt Twigs in the extreme Parts of the Body, tho not diſcover'd by the Eye; Nature being ordinarily found very uniform, and conſiſtent with her ſelf.

*Riolanus*, however, who will allow of no *Circulation* but by *Anaſtomaſes*; allows of none, neither, but by the larger Veſſels.

The Reaſon of the latter Opinion is deduc'd hence, that if part of the arterial Blood did not ooze out into the Subſtance of the Parts, they could not be nouriſh'd thereby: For the Blood, while contain'd in the Veſſels, may indeed convey Warmth thereto, but no Nutriment; the very Veſſels themſelves being not nouriſh'd by the Fluid running in their Cavity, but by Capillaries paſſing their Coats. See NUTRITION.

If then the Blood be driven out of the Veſſels in a greater Quantity than is requir'd for Nutrition; the redundancy muſt be imbib'd by the Capillary Veins.

M. *Leewenhoeck* ſeem'd to have put this Matter out of doubt by his Microſcopes, with which he diſcover'd the Inoſculations, or Continuations of the Extremities of the Veins and Arteries in Fiſhes, Frogs, &c. But ſome ſtill doubt whether there be ſuch Continuations in the Extremes of the Veins and Arteries in human Bodies and Quadrupeds: thoſe Animals it has been hitherto obſerv'd in, being either Fiſh, or of the amphibious Kind, which have but one Ventricle in the Heart, and their Blood actually cold; to which it may be added, that the Blood in theſe Creatures does not *circulate* with that Rapidity as in thoſe whoſe Hearts have two Ventricles.

This difference in the principal Organs of *Circulation*, occaſion'd Mr. *Cowper* to make Experiments on other Animals, whoſe Parts have the ſame Structure with thoſe of Man. In the *Omentum* of a Cat, he ſaw the Blood move briſkly thro' the Inoſculations; the ſame he found in the *Omentum*, and much clearer in the Meſentery, of a Dog. He adds, that the Extremities of the Veſſels are not equally leſſen'd, in the Inoſculations, in different Animals.

In the Tail of the Tadpole, he frequently obſerv'd ſeveral Communications between the Veins and Arteries; thro' each of which two Globules of Blood might paſs abreaſt. In young Fiſh, particularly Grigs, the communicant Branch is ſo ſmall, that one Globule of Blood can ſcarce paſs in the Space of three Seconds. See VEIN, &c.

In a *Fœtus*, the Apparatus for the Circulation is ſomewhat different. from that above deſcrib'd.

The *Septum*, which separates the two Auricles of the Heart, is pierc'd thro' with an Aperture, call'd the *Foramen Ovale*; and the Trunk of the Pulmonary Artery, a little after it has left the Heart, sends out a Tube into the descending *Aorta*, call'd the *Communicating Canal*.

The *Fœtus* being born, the *Foramen Ovale* closes, by degrees, and the Canal of Communication dries up, and becomes a simple Ligament. See FOETUS.

This Mechanism once known, 'twas easy to perceive its Use.

For while the *Fœtus* is inclos'd in the *Uterus*, it receives no Air, but that little furnish'd it by the Umbilical Vein: Its Lungs, therefore, can't swell and subside as they do after the Birth, and after the free Admission of the Air. They continue almost at rest, and without any Motion; their Vessels are as it were full of themselves, and don't allow the Blood to *circulate*, either in abundance, or with Ease.

Nature, therefore, has excus'd the Lungs from the Passage of the greatest Part of the Blood; and has contriv'd the *Foramen Ovale*, by which Part of the Blood of the *Vena Cava*, receiv'd into the right Auricle, passes into the left Auricle, at the Mouth of the Pulmonary Veins; and by this means is found as far in its Journey as if it had pass'd the Lungs.

But this is not all, for the Blood of the *Cava*, which, missing the *Foramen Ovale*, passes from the right Auricle into the right Ventricle; being still in too great Quantity to pass by the Lungs, whither 'tis driven thro' the Pulmonary Artery; the communicant Canal intercepts part of it in the way, and pours it immediately into the descending *Aorta*. See FORAMEN, *&c.*

This is the Doctrine of *Harvey*, *Lower*, and most other Anatomists; but, M. *Mery*, of the Royal Academy, has made an Innovation in it.

He assigns another use for the *Foramen Ovale*; and maintains, that the whole Mass of Blood brought from the *Cava* to the right Ventricle, passes, as in Adults, into the Pulmonary Artery, whence Part of it is convey'd by the communicant Canal into the *Aorta*; and the rest brought from the Lungs by the Pulmonary Veins into the left Auricle, where 'tis divided into two Parts; the one passing thro' the *Foramen Ovale* into the right Ventricle, without *circulating* thro' the *Aorta* and the rest of the Body; the other Part push'd, as in Adults, by the Contraction of the left Ventricle, into the *Aorta*, and the whole Body of the *Fœtus*.

The whole Question then turns upon this, *viz.* whether the Blood pass thro' the *Foramen Ovale* from the right to the left Ventricle, or from the left to the right.

M. *du Verney* asserts the antient Opinion, against M. *Mery*, and maintains that the *Foramen Ovale* has a Valve so dispos'd as to be open'd by the Blood driving into the right Ventricle, but shut the more firmly by its pushing into the left. M. *Mery* denies the Existence of any such Valve.

Again, in an Adult, the *Aorta* being to receive all the Blood of the Pulmonary Artery, is found of the same bigness. In a *Fœtus*, the two Arteries are to receive unequal Quantities, which of the two Systems soever be follow'd.

According to the common Opinion, the *Aorta* receiving more Blood than the Pulmonary, should be bigger: according to the Opinion of M. *Mery*, the Pulmonary Artery should be the bigger, as being esteem'd to receive a larger Quantity of Blood.

To judge of the two Systems therefore; it should seem there needed nothing but to determine which of the two Vessels were biggest in a *Fœtus*.

M. *Mery* always found the Pulmonary Artery half as big again as the *Aorta*; and, on the other hand, M. *Tauvry*, who seconded M. *du Verney*, produces Cases where the Pulmonary is less than the *Aorta*: the Facts on both Sides being examin'd by the *French* Royal Academy.

M. *Tauvry* adds, that tho the Pulmonary Artery should be greater than the *Aorta*, yet this does not prove that more Blood passes the first than the second; since it may be accounted for from the Blood's pressing more slowly towards the Lungs, which it finds some difficulty to penetrate, and accordingly swells, and is driven back.

M. *Littre*, upon dissecting an Adult, in whom the *Foramen Ovale* was still open, and measuring the Capacities of the Vessels on each side, declares for M. *Mery*.

For the Source of the *Circulation* in the *Fœtus*, Anatomists are again divided.

The popular Opinion is, that during Gestation, the Arteries of the *Uterus* convey their Blood into the *Placenta*, which is nourish'd by it, and the Surplus convey'd into the Roots of the Umbilical Vein, which makes Part of the Navel-string: thence 'tis carry'd to the Liver of the *Fœtus*, where it enters the *Vena Cava*, and is thence convey'd to the right Ventricle of the Heart, and distributed as before.

Again, the Blood brought from the Iliac Arteries of the *Fœtus*, enters the Navel-string by the Umbilical Arteries; thence passes into the *Placenta*, where it is resum'd by the Veins of the *Uterus*, which carry it back again to the Mother; and perhaps also by the Roots of the Umbilical Vein, which mix it afresh with the Blood of the Mother.

According to this System therefore, 'tis the Blood of the Mother that supplies the Child; which is here only regarded as a distinct Member, or Part of her Frame.

The beating of her Heart sends it a Portion of her Blood; and so much of the Impulse is preserv'd, as suffices to maintain that languid *Circulation* which a *Fœtus* enjoys; and, in all probability, gives that feeble Pulsation observ'd in the Heart.

Other Anatomists maintain, that the *Fœtus* is only supply'd with Chyle from the Glands of the *Uterus*; which is further elaborated, and turn'd into Blood in the Vessels of the *Fœtus*; and circulates therein, without any further Communication with the Mother.

They allow of no reciprocal *Circulation*, excepting between the *Placenta* and the *Fœtus*.

But the former Opinion is best supported: For the *Placenta* being separated from the *Uterus*, during the time of Gestation, neither yields any Chyle, nor any thing but Blood. Besides, M. *Mery* has shewn, that the *Uterus* has no Glands to furnish any Chyle.

Two other Observations of the same Author, confirm the popular System: The inner Surface of the *Uterus* is lin'd with Veins; and the outer Surface of the *Placenta* is not lin'd with any Membrane. Now as 'tis by these two Surfaces that the two seem in some measure glu'd together; it looks as if they were only left without Membranes, for an immediate Communication between their Blood-Vessels.

Add to these a Fact whereof M. *Mery* was an Eye-witness: A Woman big with Child was kill'd by a Fall; in the Cavity of her Belly were found seven or eight Pints of Blood; all the Blood-Vessels being empty'd: the Child too was found dead; but without the least Appearance of any Wound or Contusion: all its Blood-Vessels being empty of Blood, like those of the Mother. The Body of the *Placenta* still adher'd to the whole inner Surface of the *Uterus*; nor was there any extravasated Blood.

Now the Blood here had no other way to discharge it self, but by the Veins of the *Uterus*: whence it follows, that those Veins bring back to the Mother the Blood of the *Fœtus*; which alone establishes the whole System. If the *Circulation* were only from the *Fœtus* to the *Placenta*, and not also to the Mother; the dead Child would have had all its Blood.

Upon the whole, the Blood in the Lungs of the *Fœtus* has none of the Advantages of Air or Respiration; which yet being necessary, Nature, 'tis suppos'd, takes care that it receive a Portion of Air, mix'd together with its Mother's Blood, and transmitted to it by the Umbilical Vessels, to be diffus'd thro' the Body.

This is confirm'd hence, that by constringing the Navel-string very tight, the Child dies like a Man strangled: which appears to be owing to nothing but the want of Air. Add to this, that as soon as the Mother ceases to respire, the *Fœtus* expires.

As to the Velocity of the *circulating* Blood, and the Time wherein a *Circulation* is compleated; several Computations have been made.

By Dr. *Keil*'s Account, the Blood is driven out of the Heart into the *Aorta*, with a Velocity which would carry it 52 Feet in a Minute. But this Velocity is continually abated in the Progress of the Blood thro' the numerous Sections, or Branches of the Arteries: so that e'er it arrive at the Extremities of the Body, its Motion is infinitely diminish'd.

The same Author, upon a moderate Ratio of the Branches of the Arteries to the Trunks, shews, that the greatest Velocity of the Blood is to the least, in a greater proportion than of 1000,00000,00000,00000,00000,00000,00000,00000, to 1.

The space of Time wherein the whole Mass of Blood may ordinarily *circulate*, is variously determin'd.

Some of the latest Writers state it thus: Supposing the Heart to make 2000 Pulses in an Hour, and that at every Pulse there is expell'd an Ounce of Blood; as the whole Mass is not ordinarily computed to exceed 24 Pounds, it must be *circulated* 7 or 8 times over in the space of an Hour.

CIRCULATION *of the Spirits*, or the *Nervous Juice*. That the Spirits *circulate*, is evinc'd in the same manner as some Authors chuse to prove the *Circulation of the Blood*; *viz.* That as the Heart drives out every Hour three or four thousand Ounces of Blood, whereas, ordinarily, there is not above two thousand in the whole Body; there is a Necessity for the Blood driven out, to return to the Heart, in order to supply a Fund to be expell'd.

In like manner, 'tis shewn, that there is form'd each Hour a large quantity of Spirits, which are nothing but the more subtil Parts of this Blood driven out from the Heart: whence 'tis inferr'd, that these too must *circulate*. See SPIRIT.

The Course they are suppos'd to take is this.

The most subtil Parts of the Arterial Blood being carry'd from the Heart to the Brain by the Carotid Arteries, are thrown violently into the fine Network, wherewith the Bottom of the Ventricles of the Brain is lin'd; whence the more delicate Parts are driven into the Mouths of the Choroid Arteries, where they continue their rapid Motion, and discharge themselves at the Pores where those Vessels terminate around the Pineal Gland.

Hence they enter that Gland, and there form a constant Spring of Spirits; which being here purify'd, enters the Cavities of the Brain, and insinuating into the Pores of its Substance, flow into the Lymphatics; whence they are carry'd to the Heart by two ways.

Those from the upper Parts by the Subclavian Veins, and the adjacent Vessels: those from the lower, being discharg'd into *Pecquet's* Reservoir, proceed by the Thoracic Duct, and at last by the descending Veins to the Heart. Whence they begin their Course afresh.

Circulation *of the Sap*, is a natural Motion of the nutritious Juice of Plants, from the Root to the extreme Parts, and thence back again to the Root. See Sap, and Plant.

The Experiments of modern Naturalists, and Gardeners seem to prove a *Circulation* in the Body of Plants, by Veins and Arteries, analogous to that in Animals.

M. *Perrault* first started the *Circulation* of the Sap in *France*, and propos'd it, in 1667, to the Royal Academy: Tho M. *Major*, a Physician of *Hambourg*, had publish'd it, unknown to M. *Perrault*, two Years before. A Year and half afterwards, M. *Marriotte* propos'd the same to the Academy, as a new thing; not knowing that M. *Perrault* had been beforehand with him: And the great *Malpighi* appears to have entertain'd the same Thought about the same time.

The Opinion, however, is not universally receiv'd: some of the ablest Botanists, and particularly M. *Dodart*, protesting openly against it.

That Author allows of a Juice mounting from the Root to the Extremities of the Branches; and of another descending from these Extremities to the Root: the first imbib'd from the Soil, and digested in the Root, for the Nourishment of the Plant: the second receiv'd from the moist Parts of the Air, in at the Extremities of the Branches. The rising and descending Juices, therefore, according to him, are not the same; or, that which rises never descends, and reciprocally; *i. e.* there is no *Circulation*.

Dr. *Tong*, in the *Philosophical Transactions*, maintains, that the Sap always rises, and never properly descends; having only a Subsiding, or Recidivation, which he can by no means call a *Circulation*.

M. *Switzer* owns himself at a Loss for the Method wherein a *Circulation* should be effected; as well as for the Parity of Reason commonly urg'd for a *Circulation* of the Sap and of the Blood. In Animals, he observes, the degree of Growth, or Extension, is but very small: so that the Blood, not being employ'd in any other service, may be easily suppos'd to *circulate*: But Trees, growing to an unlimited Tallness, 'tis probable the great Effort of Nature is employ'd in extending 'em that way; and that the nutritious Juice only ascends. He adds, that as to the Swelling or Extension of Trees in bulk, it evidently arises from the Effusion of the Sap from the Heart of the Tree thro' the Pores, which dilates the whole insensibly, by accumulating Circle on Circle; which are annual Gradations easily observ'd upon cutting a Branch, or Trunk across.

But still, the Arguments for a *Circulation*, must be allow'd of more weight than any thing here urg'd against it.

The same Experiments of Ligature, and Incision, which evince a *Circulation* in Animals, have been made in Plants; particularly in such as abound in Sap, as the Milk-Thistle, *&c.* and with the same Success; the Part between the Ligature and the Root swelling very considerably, and the other much less.

The Ligatures are to be made with metalline Rings. Dr. *Lister* gives us an Instance in the *Cataputia minor*, where the Ligature being only a silken Thread, ty'd as hard as possible without breaking the Skin, no greater Swelling arose on one side the Ligature than the other.

Mr. *Lawrence* gives us a Demonstration of the *Circulation* of the Sap, from an Experiment on the yellow strip'd Jessamine.

Upon a Branch of a plain Jessamine, whose Stem spreads it self in two or three Branches, inoculate a Bud of the yellow strip'd Jessamine, in Autumn: As the Tree comes to shoot, the following Summer, some of the Leaves will be found ting'd here and there with yellow, and this even on the Branches not inoculated; till, by degrees, the whole Tree, even the very Wood of the young Branches, will be all variegated, or strip'd with green and yellow. See Variegation.

Mr. *Fairchild* confirms this Experiment by a similar one of his own: Having inoculated a yellow spotted Jessamine Tree, into another Jessamine Tree; he found, that tho the Bough did not take, yet, in a Fortnight's time, yellow Spots began to appear on a Shoot which came out of the Ground from another Part of the Plant. See Mule.

As to the manner of the *Circulation*; it is not difficult to conceive. *Malpighi*, *Grew*, &c. by means of Microscopes, have discover'd, that the Wood of Plants consists of fine Capillary Tubes, which run parallel from the Root, thro' the Trunk, and may be look'd on as Arteries; and on the outside of these, betwixt the Wood and the inner Bark, are other large Tubes, to do the Office of Veins.

Now, the Root having imbib'd a Stock of Juice from the Earth, that Juice will be put in motion by the Heat; that is, it will be rarefy'd, and made to ascend in form of a Steam or Vapour. Meeting, therefore, with the patent Mouths of the Arterial Vessels, it will pass thro' the same to the Top and extreme Parts of the Tree, with a Force answerable to the Heat by which it is put in motion: when it is there arriv'd; meeting with the Cold of the external Air, it is condens'd into a Liquor; and in that form returns, by its own weight, towards the Root of the venal Vessels abovemention'd.

Circulation, in Chymistry, is an Operation whereby the same Vapour, rais'd by Fire, falls back; to be return'd and distill'd several times, and thus reduc'd into its most subtil Parts. See Distillation.

*Circulation* is perform'd by disposing the Liquor in a single Vessel, stopp'd at top, call'd a *Pelican*; or in a double Vessel, consisting of two Pieces, luted on each other; the lower to contain the Liquor. See Pelican, and Double *Vessel*.

'Tis perform'd either by the Heat of a Lamp, or that of Ashes, or of Sand moderately hot, or in Dung, or by the Sun. It usually demands a continu'd heat of several Days, sometimes of several Weeks, or even several Months. See Fire, and Heat.

By *Circulation*, the finest Part of the Fluid mounts to the Top of the Vessel; and finding no issue there, falls back again, and rejoins the Matter left behind at the Bottom, whence it arose: and thus, by continuing to rise, and fall alternately in the Vessel, there is effected a kind of *Circulation*, or Remixtion of the spirituous Parts with the gross ones; whereby the former are render'd finer and more subtil, and better dispos'd to exert their Activity when separated from the latter. See Rectification.

CIRCULATORY, CIRCULATORIUM, in Chymistry, the Vessel wherein a Fluid is put, to undergo the Process of *Circulation*. See Circulation.

There are two Kinds of *Circulatories*, the *Diota*, or double Vessel; and the *Pelican*. See Double *Vessel*, and Pelican.

CIRCULUS, in Geometry Logick, *&c.* See Circle.

Circulus, among Chymists, is a round Iron Instrument, us'd in cutting off the Necks of glass Vessels: which they effect thus.

The Instrument being heated, is apply'd to the glass Vessel, and there kept till it grow hot: then, by a few Drops of cold Water, or a cold Blast thereon, it flies asunder.

Thus they cut off the Necks of Retorts or Cucurbits. See Retort, *&c.*

There is another Method of doing the same, *viz.* by tying a Thread, first dipp'd in Oil of Turpentine, round the Place where the Fracture is to be; and then setting fire to the Thread.

This done, some cold Water being sprinkled on the Place, the Glass will be crack'd thro' precisely where the Thread was ty'd.

CIRCUMAGENTES *Musculi*, in Anatomy. See Obliqui.

CIRCUMAMBIENT, an Epithet denoting a thing to invest, or incompass another around. See Ambient.

We say the *Ambient*, or *Circumambient* Air, *&c.* See Air, Atmosphere, *&c.*

CIRCUMCISION, the Act of cutting off the Prepuce: or, a Ceremony in the *Jewish* and *Mahometan* Religions, wherein they cut away the *Præputium*, or Fore-skin of the Males who are to profess the one, or the other Law. See Prepuce, Jew, Mahometan, *&c.*

*Circumcision* commenc'd in the Time of *Abraham*; and was, as it were, the Seal of a Covenant stipulated between God and him: It was in the Year of the World 2178, that *Abraham*, by divine Appointment, *circumcis'd* himself, and all the Males of his Family; from which time it became an hereditary Practice among his Descendants.

The Ceremony, however, was not confin'd to the *Jews*: *Herodotus* and *Philo Judæus* observe, that it obtain'd also among the *Egyptians* and *Ethiopians*. *Herodotus* says, that the Custom was very antient among each People; so that there was no determining which of them borrow'd it from the other. The same Historian relates, that the Inhabitants of the *Colchide* also us'd *Circumcision*; whence he concludes, that they were originally *Egyptians*. He adds, that the *Phænicians* and *Syrians* were likewise *circumcis'd*; but that they borrow'd the Practice from the *Egyptians*. And lastly, that

that a little before the Time when he wrote, *Circumcision* had pass'd from the *Colchide*, to the People inhabiting near *Thermodoon* and *Parthenius*.

*Marsham* is of Opinion, that the *Hebrews* borrow'd *Circumcision* from the *Egyptians*; and that God was not the first Author thereof: citing *Diodorus Siculus* and *Herodotus* as Evidences on his side. Be this as it will, 'tis certain, the Practice of *Circumcision* among the *Hebrews*, differ'd very considerably from that of the *Egyptians*.

Among the first, 'twas a Ceremony of Religion, and was perform'd on the eighth Day after the Birth of the Child. Among the latter, a Point of mere Decency and Cleanliness; and, as some will have it, of physical Necessity: and was not perform'd till the thirteenth Year; and then on Girls as well as Boys.

Among the *Jews*, *Circumcision* was perform'd with a Knife of Stone. They set aside the Practice of *Circumcision*, during the forty Years of their Passage thro' the Wilerness; in regard, *Circumcision* being intended as a Mark of Distinction between the *Jews* and *Gentiles*, it was unnecessary to make any Mark at all, in a Place wherein there was no body to mix with them.

M. *Fleury* observes, that the *Jews* were not unanimous as do the Necessity of *Circumcision*; some holding it an Essential, others as a Circumstance.

The *Turks*, before the Operation of Circumcision, squeeze the Skin with little Pinchers, to deaden the Sensation: they then cut it off with a Razor, and apply a certain Pouder, which heals the Wound, and abates the Pain. They never *circumcise* till the seventh or eighth Year; as having no Notion of its being necessary to Salvation.

The *Persians* circumcise their Boys at thirteen Years; and their Girls from nine to fifteen. Those of *Madagascar* cut off the Flesh at three several times: The most zealous of the Relations present, catches hold of the *Preputium* and swallows it.

*Herrera* tells us, there is a kind of *Circumcision* among the *Mexicans*, tho they are very remote both from *Judaism* and *Mahometanism*: they cut off the Foreskin of the virile Member and the Ears, as soon as the Child is born, with a world of Ceremony.

*Circumcision* is also practis'd on Women, by cutting off the Fore-skin of the *Clitoris*; which bears a near resemblance, and analogy to the *Præputium* of the Male Penis. *Strabo* says, the *Egyptian* Women were *circumcis'd*; *Belon* says the same of the *Cophtæ*; and *P. Jovius* and *Munster* of the Subjects of *Prester John*. See Clitoris.

Among the *Jews*, the Father is oblig'd to have his Son *circumcis'd* on the eighth Day; it mayn't be sooner: but the Child's Weakness may allow of its being deferr'd longer. There is a Godfather to hold the Child, and a Godmother to carry it from the House to the Synagogue, and to present it there. He who *circumcises* is call'd in *Hebrew*, *Mohel*: Any Person is chosen for the Purpose, indifferently; provided he be but capable of the Function; which among the *Jews* is a Title of great Merit.

The Manner of the Ceremony, as related by *Leo de Modena*, is as follows.

Two Seats are prepar'd, in the Morning, with silken Cushions; the one for the Godfather who holds the Child, the other, as they say, for the Prophet *Elias*, whom they suppose to assist invisibly. The Person who is to *circumcise* brings the necessary Utensils, the Razor, Styptic, Linen, Fillet, and Oil of Roses; to which some add a Shell full of Sand to put the *Præputium* in. A Psalm is sung till the Godmother brings the Child, attended with a Croud of Women, and delivers it to the Godfather; none of 'em entering the Door. The Godfather being seated, sets the Child on his Lap: then the *Cicumciser* taking the Razor, and preparing the Child for the Operation, says, *Blessed be thou, O Lord, who hast enjoin'd us Circumcision*; and in so saying cuts off the thick Skin of the *Præputium*, and with his Finger Nails tears off another finer Skin remaining; sucking the Blood two or three times as it breaks out, and spitting it out into a Glass full of Wine: then he lays Dragons-Blood on the Wound, with Pouder of Coral, and other Things to stanch the Blood; and lastly, a Compress of Oil of Roses; and thus binds up the whole. This done, he takes a Glass of Wine, and blessing it, adds another Benediction for the Child, and imposes the Name.

The Manner of *Circumcising* among the *Turks*, differs from that of the *Jews*: for the former, after they have cut off the Skin, meddle no further; but the last tear off the Edge of the remaining Skin in several Places with their Thumb-Nails; which is the Reason why the circumcis'd *Jews* are cur'd much sooner than the *Turks*.

Those among the *Jews* who perform the Operation of *Circumcision*, are distinguish'd by the Length of their Thumb-Nails.

Circumcision is also the Name of a Feast celebrated on the first of *January*, in Commemoration of the *Circumcision* of our Saviour. See Feast.

This Day was antiently kept a Fast; in opposition to the Pagan Superstitions, who feasted on it in honour of the God *Janus*.

CIRCUMFERENCE, in Geometry, the Curve Line that incloses a Circle, or circular Space; call'd also *Periphery*. See Circle, and Periphery.

All Lines drawn from the Centre of a Circle to the *Circumference*, call'd *Radii*, are equal. See Radius.

Any Part of the *Circumference* is called an *Arch*; and a right Line drawn from one Extreme of the Arch to the other, a *Chord*. See Arch, and Chord.

The *Circumference* of every Circle is suppos'd to be divided into 360 equal Parts, call'd *Degrees*. See Degree.

The Angle at the *Circumference*, is double that at the Centre. See Angle, and Centre.

Every Circle is equal to a Triangle, whose Base is equal to the *Circumference*, and its Height to the Radius. See Triangle.

Hence, the *Circumferences* of Circles are to each other as their Radii.

Hence, again, since the *Circumference* of one Circle is to its Radius, as that of any other Circle to its Radius; the Ratio of the *Circumference* to the Radius is the same in all Circles.

The Ratio of the Diameter of a Circle to its *Circumference*, *Archimedes* makes as 7 to 22; others, who bring it nearer the Truth, as 100000000000000 to 314159265358-97932. For Use, the Proportion of 100 to 314 in smaller Circles; and of 1000 to 3145 in larger Circles, is commended by *Vieta*, *Huygens*, &c. The justest Proportion for small Numbers, is that of *Metius*, who makes it as 113 to 355. See Diameter.

The Diameter of a Circle therefore being given, its *Circumference* is had; and that multiply'd by one fourth Part of the Diameter gives the Area of the Circle. See Area.

The Word is form'd from the Latin *Circum*, about, and *fero*, I carry.

CIRCUMFERENTOR, an Instrument us'd in Surveying, to take Angles by. See Angle, and Surveying.

The *Circumferentor* is very simple, yet expeditious in the Practice: It consists of a Brass Circle and an Index, all of a piece. See its Figure in Tab. *Surveying*, Fig. 19.

On the Circle is a Card, or Compass, divided into 360 Degrees; the Meridian Line whereof answers to the middle of the Breadth of the Index. On the Limb, or Circumference of the Circle, is solder'd a Brass Ring; which, with another fitted with a Glass, make a kind of Box for the Needle, which is suspended on a Rivet in the Centre of the Circle. To each Extreme of the Index is fitted a Sight. See Sights.

The whole is mounted on a Staff; with a Ball and Socket for the Conveniency of its Motion. See Ball and *Socket*.

*Use of the* Circumferentor.

*To take an Angle by the* Circumferentor. Suppose the Angle requir'd E K G, (Tab. *Surveying*, Fig. 20.) place the Instrument, *v. g.* at K, with the Flower-de-luce in the Card towards you. Then direct the Sights, till thro' em you spy E; and observe what Degree is pointed at by the South End of the Needle, which suppose 296: then turn the Instrument about, the Flower-de-luce still towards you, and direct the Sights to G; noting the Degree at which the South End of the Needle points, which suppose 182.

This done, subtracting the lesser Number 182, from the greater 296, the Remainder 114, is the Number of Degrees of the Angle E K G.

If the Remainder chance to be more than 180 Degrees, it must be again subtracted from 360 Degrees; the last Remainder is the Quantity of the Angle sought.

*To take the Plot of a Field, Wood, Park, &c. by the* Circumferentor.

Suppose A B C D E F G K, (Fig. 21.) an Inclosure to be survey'd with the *Circumferentor*.

1. Placing the Instrument at A, the Flower-de-luce towards you, direct the Sights to B; where, suppose the South End of the Needle to cut 191°; and the Ditch, Wall, or Hedge, measur'd with the Chain, to contain 10 Chains, 75 Links; which enter down. See Chain.

2. Placing the Instrument at B, direct the Sights as before to C; the South End of the Needle, *v. g.* will cut 279°; and the Line B C contain 6 Chains 83 Links, to be noted as before. Then move the Instrument to C; turn the Sights to D, and measure C D as before.

In the same manner, proceed to D, E, F, G, H, and lastly to K; still noting down the Degrees of every Bearing, or Angle, and the Distances of every Side.

Having thus gone round the Field, you will have a Table in the following form.

| Stations. | Degrees. | Min. | Chains. | Links. |
|---|---|---|---|---|
| A | 191. | 00 | 10. | 75 |
| B | 297. | 00 | 6. | 83 |
| C | 216. | 30 | 7. | 82 |
| &c. | | | | |

From

From this Table, the Field is to be *plotted*, or *protracted*; For the Manner whereof, see PLOTTING, and PROTRACTION.

*Note*, Where Security is to be consulted rather than Dispatch, it may be convenient to take Back-sights; *i. e.* to place the Instrument so, at each Station, as that looking backwards thro' the Sights to the last Station, the North End of the Needle may point to the same Degree as the South End did, in looking forwards from the last Station to this. See THEODOLITE, and PLAIN-TABLE: Both which Instruments are us'd, on occasion, as *Circumferentors*.

CIRCUMFLEX, in Grammar, an Accent, serving to note, or distinguish a long Syllable. See ACCENT, LONG, *&c.*

The *Greeks* had three Accents, the *Acute*, the *Grave*, and the *Circumflex*, form'd thus ′, ‵, ~. In *English*, *French*, &c. the *Circumflex* is made thus ^. See CHARACTER.

The Acute raises the Voice, and the Grave falls, or lowers it: the *Circumflex* is a kind of Undulation, or wavering of the Voice, between the two. See ACUTE, GRAVE, *&c.*

'Tis seldom us'd unless to shew the Omission of a Letter which made the Syllable long and open; a thing vastly more frequent in the *French* than among us: Thus they write *pâte*, for *paste*; *tête*, for *teste*; *fûmes*, for *fusmes*, &c. They also use the *Circumflex* in the Participles; some of their Authors writing *conneu*, *pee*, others, *connû*, *pû*, &c. Father *Buffier* is at a Loss for the Reason of the *Circumflex* on this occasion.

The Form of the Greek *Circumflex* was antiently the same with that of ours: but the Copists changing the Form of the Characters, and introducing the running Hand, chang'd also the Form of the *Circumflex* Accent; and instead of making a just Angle, rounded it off, adding a Dash thro' too much haste; and thus form'd an *s*, inverted and laid horizontally, which produc'd this Figure ~, instead of this ^.

CIRCUMLOCUTION, a Circuit, or Tour of Words, us'd either when a proper Term is not at hand, to express a thing naturally and immediately by; or when one chuses not to do it, out of respect; or on some other occasions.

The Word comes from the Latin *Circumloquor*, I speak about.

CIRCUMLOCUTION, in Oratory, is the avoiding of something disagreeable, or inconvenient to be express'd in direct Terms; by intimating the Sense thereof in a kind of Paraphrase, so conceiv'd as to soften, or break the Force thereof.

Thus *Cicero*, unable to deny that *Clodius* was slain by *Milo*, owns it, with this *Circumlocution*, 'Milo's Servants 'being prevented from assisting their Master, who was re-'ported to be kill'd by *Clodius*; they, in his absence, and 'without his Privity, or Consent, did what every body 'would expect from their own Servants on such an occasion.'

CIRCUMINCESSION, in Theology, a Term whereby the Schoolmen use to express the Existence of three divine Persons in one another, in the Mystery of the Trinity. See PERSON.

The School-Divines are not the first Authors of this Term; *Damascenus*, in the VIIIth Century, having us'd the Word περιχώρησις, which signifies the same thing, in his Explanation of that Text, *I am in my Father, and my Father is in me.*

CIRCUM *Polar Stars*, are such Stars as being pretty near our North-Pole, move around it; and in our Latitude, never set, or go below the Horizon. See STAR, POLE, SETTING, *&c.*

CIRCUMSCRIBING, in Geometry, denotes the describing a polygonous Figure about a Circle, in such manner, as that all its Sides are Tangents to the Circumference. See CIRCLE, POLYGON, *&c.*

The Term is sometimes also us'd for the describing of a Circle about a Polygon; so, as that each side is a Chord. But in this Case, we more usually say, the Polygon is *inscribed*, than the Circle *circumscribed*. See INSCRIBING.

Any regular Figure A B C D E, (Plate *Geometry*, Fig. 29.) inscrib'd in a Circle, is resolv'd into equal and similar Triangles, by Radii drawn from the Centre of the *circumscribing* Circle F, to the several Angles of the Figure; and its Area is equal to a rectangled Triangle, whose Base is equal to the Circumference of the whole Polygon; and its Height a Perpendicular let fall from the Centre F to one side A B.

The same may be said of the Area of the *circumscribing* Circle *a b c d e*, excepting that the Height is to be the Radius.

The Area of every Polygon that can be inscrib'd in a Circle is less; and that of every Polygon that can be *circumscrib'd*, greater than that of the Circle: In like manner, the Perimeter of the first is less, and that of the second greater than the Circumference of the Circle. See PERIMETER, *&c.*

On this Principle *Archimedes* attempted the Quadrature of the Circle; which is nothing else, in effect, but the measuring of the Area, or Capacity of a Circle. See QUADRATURE.

The Side of a Hexagon is equal to the Radius of a *circumscrib'd* Circle. See HEXAGON.

*To Circumscribe a Circle* about any given regular Polygon, A B C; (Fig. 30.) and *vice versa*. Bissect two of the Angles, *v. g.* A and B; and on the Point F, where the two Lines of Bissection intersect, as on a Centre, describe a Circle with the Radius F A.

*To Circumscribe a Square about a Circle.* Draw two Diameters, A B and D E, (Fig. 31.) intersecting each other in the Centre C, at right Angles. From A E B D, with the Interval of the Radius, make Intersections in F, G, H, I. Draw the right Lines F G, G H, I H, and I F. Then is F G H I a Square *circumscrib'd* about the Circle.

*To circumscribe any regular Polygon, v. g.* a Pentagon, *about a Circle.* Bissect the Chord A E, (Fig. 32.) by the Perpendicular F G, which continue till it cut the Arch in *g*. Thro' A and E, draw the Radii A F and E F: and thro' *g* draw a Line parallel to A E, meeting the Radii continu'd on each side in *a* and *e*: Then is *a e* one side of the *circumscrib'd* Polygon. Produce the Radius F B to *b*, till F *b* = F *a*; and draw *a b*: this is another Side of the Polygon; and in the same manner may the rest of the Sides be drawn.

*To Inscribe any regular Polygon in a Circle.* Divide 360 by the number of Sides, in order to find the Quantity of the Angle E F D; which make at the Centre, and apply the Chord to the Periphery as often as it will go. Thus will the desir'd Figure be *inscrib'd* in the Circle.

CIRCUMSTANCES, the Incidents of an Event, or the Particularities that accompany an Action. See INCIDENT.

Divines say, the Conversion of a Sinner depends on a certain Assemblage, and a certain Management of external *Circumstances* in the midst whereof he is plac'd; which Arrangement of *Circumstances*, depends on the Providence of God: whence Conversion also depends on him. See CONVERSION.

The *Circumstances* of the Actions of Men, are express'd in this *Latin* Verse.

*Quis, quid, ubi, quibus auxiliis, cur, quomodo, quando.*

*Quis*, who, denotes the Quality, State, Age, *&c.* of the Person. *Quid*, what, the greatness, smallness, multitude, fewness, *&c.* of the thing. *Ubi*, where, the Place. *Quibus Auxiliis*, with what Assistances, the Instruments, Means, *&c.* *Cur*, why, on what Account, with what View. *Quomodo*, how, the Quality of the Action, as to Intension or Remissness, Designedness or Casualty, Secrecy or Openness. *Quando*, when, the Time; as on a Holiday, at the Hour of Prayer, *&c.*

CIRCUMSTANTIBUS, in Law, is us'd for the supplying, and making up the Number of Jurors, (in case any impanell'd appear not; or appearing, be challeng'd by either Party) by adding to them so many of the Persons present, or standing by, as will serve the turn. See JURY, and JUROR.

CIRCUMVALLATION, in Fortification, a Line, or large Trench, made around a Camp; in the besieging of a Town. See LINE, FORTIFICATION, *&c.*

This Trench is to be a Cannon-shot distant from the Place, ordinarily, about 12 Foot broad, and seven deep. It is border'd with a Parapet, and flank'd with Redoubts, or little Forts, erected from Space to Space. It serves both to prevent any Succour from being sent into the Place, to keep in Deserters, and prevent Incursions of the Enemy's Garison.

Care must be taken that the Line of *Circumvallation* never pass by the Foot of an Eminence; lest the Enemy seizing on the Eminence, lodge his Cannon, and command the Line.

The Word is form'd from the Latin *circum*, about, and *vallum*.

CIRCUMVOLUTIONS, in Architecture, the Turns of the Spiral Line of the *Ionic* Volute. See VOLUTE.

The Word comes from the Latin *Circumvolvere*, to turn around; and is also apply'd to the Turns of a wreath'd or twisted Column. See COLUMN.

CIRCUS, in Antiquity, a large Building, either round, or oval; us'd for the exhibiting of Shews to the People. See SPECTACLES, CIRCENSIAN *Games*, &c.

The *Roman Circus*, was a large Place, or Square, arch'd at one End; incompass'd with Porticos, and furnish'd with Rows of Seats, plac'd ascending over each other.

In the middle was a kind of *Banquette*, or Eminence, with Obelisks, Statues, and Posts at each End. This serv'd 'em for the Courses of their *Bigæ* and *Quadrigæ*. See BIGÆ, *&c.*

There were no less than ten *Circus*'s at *Rome*: the largest was that built by the Elder *Tarquin*, called *Circus Maximus*; between the *Aventine* and *Palatine* Mounts. *Pliny* says, it was enlarg'd by *J. Cæsar*, so as to take in no less than three *Stadia* in Length, and one in Width.

The most magnificent *Circus*'s were those of *Augustus* and *Nero*. There are still some Remains of the *Circus*'s, both at *Rome*, at *Nismes*, and other Places.

The *Romans* were excessively fond of the Games exhibited in the *Circus*, witness that Verse in *Juvenal*,

*——Atque duas tantum res anxius optat,*
*Panem & Circenses——*



Some

Some derive the Word from *Circe*, to whom *Tertullian* attributes the Invention. *Cassiodorus* says, *Circus* comes *à circuitu*.

The *Romans*, *Servius* observes, at first, had no other *Circus* but that made by the *Tiber*, on one side, and a Pallisade of naked Swords on the other.

Hence, according to *Isidore*, came the Term *Ludi Circenses*, *quasi Circum-Enses*. But *Scaliger* laughs at the Etymology.

*The Games of the* CIRCUS, which some call *Circensian Games*, were Combats celebrated in the *Circus*, in honour of *Consus* the God of Councils; thence also call'd *Consualia*. See CONSUALIA.

They were also called *Roman Games*, *Ludi Romani*, either on account of their Antiquity, as being coeval with the *Roman* People, or because establish'd by the *Romans*: and the great Games *Ludi Magni*, because celebrated with more Expence and Magnificence than any others; and because held in honour of the great God *Neptune*, who was their *Consus*.

Those who say they were instituted in honour of the Sun, confound the *Pompa Circensis*, or Procession of the *Circus*, with the Games.

The Games of the *Circus* were instituted by *Evander*, and re-establish'd by *Romulus*: The Procession was only a Part of the Games, making the Prelude thereof; and consisting of a simple Cavalcade of Chariots.

Till the Time of the Elder *Tarquin*, they were held in an Island of the *Tiber*; and were called *Roman Games*: after that Prince had built the *Circus*, they took their Name therefrom; as being constantly held there.

There were six Kinds of Exercises in the *Circus*: the 1st Wrestling, fighting with Swords, with Staves, and with Pikes: the 2d was Racing: the 3d *Saltatio*, Dancing: the 4th *Disci*, Quoits, Arrows, and *Cestus*; all which were all on Foot: the 5th was Horsecoursing: the 6th Courses of Chariots, whether with two Horses, or with four. See BIGÆ, and QUADRIGÆ.

In this last Exercise, the Combatants were at first divided into two *Quadrils*, then into four; each bearing the Names of the Colours they wore; *Factio Alba*, *Russea*, &c. See FACTION, QUADRIL, &c.

At first there was only white and red; then green was added, and blue. *Domitian* added two more Colours, but they did not hold.

It was *Oenomaus* who first invented this Method of distinguishing the *Quadrils* by Colours. The green was for those who represented the Earth; the blue for the Sea, &c. See COLOUR, &c.

CIRRI, in Botany, a Term us'd for those fine Strings, or Hairs, by which some Plants fasten themselves, for their support; as Ivy, and the like. See CLASPERS.

CIRSOCELE, in Medicine, a Dilatation of the Spermatic Veins; occasion'd by a too thick, grumous Blood; call'd also *Hernia Varicosa*. See HERNIA.

The Word comes from the *Greek* κιρσὸς, *varix*, Vein, and κήλη, *Hernia*. See VARIX.

CISALPINE, any thing on this side the *Alps*.

The *Romans* divided *Gaul*, and the Country now call'd *Lombardy*, into *Cisalpine* and *Transalpine*. See TRANSALPINA.

That which was *Cisalpine* with regard to the *Romans*, is *Transalpine* with regard to us.

The Word is form'd from the Preposition *Cis*, on this side, and *Alpes*; which, tho properly confin'd to the Mountains separating *Italy* and *France*, yet is us'd by Authors for any very high Mountains.

Thus *Ausonius* has the *Alps* of the *Pyreneans*, the *Alps* of the *Apennines*, &c.

CISSOID, in Geometry, an Algebraic Curve, first invented by *Diocles*; whence it is peculiarly call'd the *Cissoid of Diocles*. See CURVE.

The Genesis of the *Cissoid* may be thus conceiv'd: To the Diameter A B, (Tab. *Analysis*, Fig. 9.) of the Semicircle A O B, draw an indefinite Line, at right Angles, B C: then, draw the right Line A H, and make A M = I H; or in the other Quadrant, L C = A N. Thus will the Points M and L be in a Curve Line A M O L; which is the *Cissoid* of *Diocles*.

*Properties of the* CISSOID.

From the Genesis it follows, 1st, That drawing the right Lines P M and K I, perpendicular to A B; we shall have AP : KB :: AM : IH. But AM = IH; consequently, AP = AB. And therefore, AK = PB; and PN = IK.

2d, After the same manner, it appears, that the *Cissoid* AMO bisects the Semicircle A O B.

3d, Again, AK : KI :: KI : KB. That is, AK : PN :: PN : AP. And again, AK : PN :: AP : PM; therefore, PN : AP :: AP : PM. Consequently, AK, PN, AP, and PM, are four Lines in continual Proportion. And if PN = $v$, AP = $x$, PM = $y$; $x^2 = vy$. And after the same manner it may be shewn, that AP, PN, AK, and KL, are in continual Proportion.

4th, In the *Cissoid*, the Cube of the Abscissa AP, is equal to a Solid, arising of the Square of the Semiordinate PM, multiply'd into the Complement of the Diameter of the generating Circle PB.

Hence, when the Point P falls on B, then $x = a$, and BC $= y$; consequently, $y^2 = \frac{a^3}{0}$. Wherefore, $0 : 1 :: a^3 : y^2$; that is, the Value of $y$ becomes infinite: and therefore the *Cissoid* AMOL, tho it continually approach BC yet they will never meet.

5th, BC, therefore, is an *Assymptote* of the *Cissoid*. See ASSYMPTOTE.

The Antients made use both of the *Conchoid* and *Cissoid*; for the finding of two mean continual Proportionals between two given right Lines. See PROPORTIONAL.

For *the Quadrature*, *Subnormal*, and *Subtangent of the* CISSOID; see QUADRATURE, SUBNORMAL, and SUBTANGENT.

CISTERCIANS, an Order of Religious, call'd by the French *Cisteaux*; consisting of an hundred Monasteries, and near as many Nunneries. See ORDER, MONK, RELIGIOUS, &c.

The Order took its rise in 1075, from twenty one zealous Monks in the Monastery of *Molesme* in *Burgundy*; who, with their Abbot *Robert*, complaining that the Rule of S. *Benedict* was not strictly enough observ'd; obtain'd Permission of *Hugh*, Archbishop of *Lyons* and Legate of the Holy See, to settle in a Place call'd *Cisteaux*, five Miles from *Dijon*.

Here *Eudes* Duke of *Burgundy* erected 'em a Building, into which they were admitted in 1098; endowing it with a considerable Revenue. The Bishop of *Chalons* gave *Robert* the Pastoral Staff, in quality of Abbot; and erected the new Monastery into an Abbey. See ABBOT.

Such was the beginning of the *Cistercians*, so famous in After-times, and now so extended throughout all *Europe*.

CISTERN, or CESTERN, is properly us'd for a subterraneous Reservoir of Rain-water. See WELL.

*Cisterns* must be made with good Cement, to retain the Water. See CEMENT.

The Bottom should be cover'd with Sand, to sweeten and preserve it. See WATER.

Authors mention a *Cistern* at *Constantinople*, the Vaults whereof are supported by two rows of Pillars, 212 in each Row; each Pillar being two Foot in Diameter. They are planted circularly, and in Radii tending to that in the Centre.

The Word, according to some, comes from *Cis*, and *terram*, i. e. *inter terram*; others derive it from *Cista*, an Osier Basket, a Duct, &c.

CISTIC. } See { CYSTIC.
CIST-*Hepatic*. } See { CYST-*Hepatic*.
CISTUS. } See { CYSTUS.

CITADEL, or CITTADEL, a Fort, or Place fortify'd with four, five, or six Bastions; built sometimes in the most eminent Part of a City, and sometimes only near the City.

In the first Case, the *Citadel* serves to defend the City against Enemies. See FORT, FORTIFY'D *Place*, &c.

In the latter it serves to command it, and to keep the Inhabitants in their Obedience: for which purpose the City is left unfortify'd on the Part toward the *Citadel*, but the *Citadel* fortify'd toward the City.

The most usual Form for *Citadels*, is that of a Pentagon: a Square being too weak, and a Hexagon too big. See FORTIFICATON, PENTAGON, &c.

There is always a large Esplanade between the *City* and *Citadel*. See ESPLANADE.

The Word is a Diminutive of the Italian *Citta*, City, *q.d.* little City.

CITATION, an Assignation, or summoning of a Person before an Ecclesiastical Judge, on some Affair relating to the Church.

In the Civil, and Ordinary Courts, it is call'd *Summoning*. See SUMMONS.

The Word CITATION is also us'd in speaking of Military and Monastick, as well as Ecclesiastical Courts. Such a Heretick was *cited* to *Rome*; to a General Council, &c.

Knights are *cited* to the General Chapters of their Order.

K. *Edward* I. of *England*, was *cited*, by Order of *Philip* IV. of *France*, to a Court of his Peers. The *Citation* was publish'd by the Seigneur *d'Arrablay*, Seneschal of *Perigord* and *Querci*; and was pasted up, by his Order, on the Gates of the City *Libourne*, which then belong'd to K. *Henry*. For Default in not appearing, all his Domains, and Effects in *France* were confiscated. F. *Daniel*.

CITATION is also an Allegation, or Quotation of some Law, Authority, ot Passage. See QUOTATION.

The Word comes from *cito*, of *cieo*, I stir up.

CITRON, an agreeable Fruit, in Colour, Taste, Smell, &c. resembling a Lemon; and serving, like that, to cool, and quench the Thirst: being produc'd by a Tree of the same Name, much resembling the Lemon Tree. See LEMON.

The *Citron* is distinguish'd from the Lemon, in that it is bigger, and its Pulp firmer; its Smell brisker, and Colour higher. It is held excellent against Poisons: and *Athenæus* relates

relates an Instance of two Persons, preserv'd safe from the most dangerous Aspics, by eating a *Citron*.

The Distillers, Perfumers, Confectioners, *&c.* procure divers things from *Citrons*; as Essences, Oils, Confections, Waters, *&c.*

CITRON-*Water*. See *Citron*-WATER.

CITRON-*Santal*. See SANTAL.

CITY, a large Town, inclos'd with a Wall. See TOWN.

'Tis hard to give any just Definition of a *City*; in regard, Custom has reserv'd the Appellation of *Towns*, to so many Places which seem to have every thing requisite to constitute a City.

Formerly, *City* was only understood of such Towns as were Bishops Sees: which Distinction seems still to hold in *England*; tho no where else. See SEE.

*City* is particularly us'd to express the Heart of the Place. At *Paris* they have the *City* and the *University*; at *London* we have the *City* and the *Suburbs*.

The Term *City* had its rise among us, since the Conquest; for in the Time of the *Saxons* there were no *Cities*, but all great Towns were called *Burghs*: Thus, *London* was call'd *Lunden Burgh*. See BURGH.

And for a long time after the Conquest, *City* and *Burgh* were us'd promiscuously: thus, in the Charter of *Leicester*, that Place is called both *Civitas* and *Burgus*; which shews a Mistake in my Lord *Coke*, where he tells us, that every *City* was, or is a Bishop's See. Nor had *Glocester* any Bishop then; tho 'tis call'd a *City* in *Dome's-Day*. The like may be observ'd of *Cambridge*; to which it may be added, that *Crompton*, reckoning up our *Cities*, leaves out *Ely*, tho it had a Bishop and a Cathedral.

Yet *Cassanæus*, *de Consuetud. Burgund.* says, *France* has within its Territories 104 *Cities*; and gives his Reason, because it has so many Archbishops and Bishops.

CITY, *Civitas*, in speaking of Antiquity, signifies a State, or People, with all its Dependencies, constituting a particular Republic; such as are, still, several *Cities* of the Empire, and the *Swiss* Cantons.

Tho the antient *Gauls* were, in effect, only one Nation; they were yet divided into several Peoples, which form'd as many different States: or, to speak with *Cæsar*, as many different *Civitates*, *Cities*. Besides that each *City* had its particular Assemblies, it sent Deputies, too, from time to time, to the general Assemblies, held on Affairs relating to their common Interest.

*Augustus*, upon numbring the *Roman Citizens*, found they amounted to 4 Millions, 137000. See ENUMERATION.

To make a good *Roman Citizen*, there were three things requir'd: that he were an Inhabitant of *Rome*; that he were inroll'd in one of the 35 Tribes; and that he were capable of Dignities. Those to whom were granted the Rights and Privileges of *Roman Citizens*, were properly only *Honorary Citizens*.

The seventh Law, *de Incolis*, makes a great deal of difference between a *Citizen* and a mere Inhabitant. Birth, alone, made a *Citizen*; and entitled to all the Privileges of Burgesy: Time could not acquire it; but the Emperor cou'd bestow it.

The Word comes from the Latin *Civis*; which Authors derive from *Coëo*, by Reason the *Citizens* live together: or rather from *Cieo*, I call together.

CIVET, a kind of Perfume, bearing the Name of the Animal whence it is taken. See PERFUME.

The *Civet*, or *Civet-Cat*, is a little Animal, resembling our Cat; excepting that his Snout is more pointed, his Claws less dangerous, and his cry different.

The Perfume this Animal produces, is form'd like a kind of Grease, or thick Scum, in an Aperture, or Bag, under his Tail. 'Tis gather'd from time to time; and still abounds, in proportion as the Animal is fed.

There is a very considerable Traffic of *Civet*, from *Bassora*, *Caticut*, and other Places, where the Animal that produces it is found. Tho, part of the *Civet* among us is furnish'd us by the *Dutch*; who bring up a considerable Number of the Animals.

Before any of these Animals were seen in *Europe*, or it had been observ'd how the Perfume had been gather'd; the common Opinion, founded on the Relations of Travellers, was, that it was the Sweat of that Animal, irritated, and kindled into Rage.

To this effect, 'twas said, that the Animal was inclos'd in an Iron Cage; and after having been a long time beaten with Rods, they gather'd with a Spoon, thro' the Bars of the Cage, and between the Thighs of the Animal, the Sweat or Foam, which the Rage and Agitation had produc'd: and that without this Precaution, the Animal would yield no Perfume at all.

But Experience has taught us better; and we now know, that the Perfume *Civet*, is only a thick unctuous Humour, secreted by certain Glands between the two Tunics of the Bag wherein it is amass'd, under its Tail, beneath the *Anus*.

*Civet* must be chosen new, of a good Consistence, a whitish Colour, and a strong disagreeable Smell.

Besides the *Indian* and *Dutch Civet*, there is also a *Civet* from *Brasil*, or *Guinea*, like that of *India*; and an *Occidental Civet*, which bears no resemblance to it.

*Civet* is little us'd in Medicine, except in a Thickness of Hearing, from Cold; where a Grain or two being put in a little Cotton, or Wool, and the Ears stopp'd therewith, is sometimes of service. It is much us'd among Perfumers and Confectioners.

The Word *Civet* comes from the Arabic *Zibet*, or *Zebet*, Scum, Froth.

CIVIC, an Epithet apply'd to a Kind of Crown, made of Oaken Leaves; antiently bestow'd by the *Romans*, on those who sav'd the Life of a Fellow-Citizen in a Battle, or an Assault. See CROWN.

The *Civic* Crown was exceedingly esteem'd; and was even given as an Honour, to *Augustus*; who on this Occasion struck Coins with this Device, OB CIVES SERVATOS.

It was also given to *Cicero*, after his Discovery of *Catiline*'s Conspiracy.

CIVIL, in its general Sense, is something that regards the Policy, publick Good, or repose of the Citizens, or Subjects of a State. See CITY.

In this Sense, we say, *Civil* Government; *Civil* Law; *Civil* Rights; *Civil* War, *&c.* See GOVERNMENT, *&c.*

CIVIL *Law*, *Lex Civilis*, is defin'd, in the Institutes, to be the Laws peculiar to each City, or each People: but in the modern Use, it properly implies the *Roman Law*, contain'd in the Institutes, the Digest, and the Code; otherwise call'd, the *Lex Scripta*, or *Written Law*. See LAW.

The *Roman* Law, at its Commencement, was very inconsiderable. Under the Kings, the People were govern'd by certain Laws, prepar'd by the Senate, pass'd by the Kings, and confirm'd in an Assembly of the People.

*Papirius* was the first who made a Collection of the Regal Laws; which took its Name from its Author, and was call'd *Jus Papirianum*.

The Republic, after abolishing the Regal Government, still retain'd the Royal Laws: To these they added the Law of the *Twelve Tables*; drawn by the *Decemviri*, from the Laws of twelve of the principal Cities of *Greece*; and the more Equitable among the Laws hitherto practis'd at *Rome*. See DECEMVIRI.

The Law of the *Twelve Tables* was at length found so severe, and conceiv'd in such obscure Terms; that it was judg'd proper to moderate, restrain, and ascertain it, by other Laws, propos'd to the Senate by the Consuls, and pass'd at general Assemblies of the People; according to the Practice that had obtain'd under the Kings themselves.

In the Year of *Rome* 731, the Republic expir'd; and the whole Power of the People was transferr'd to *Augustus*, who was contented to publish his new Laws in the Assembly of the People; to keep up some Image of the Republic by this Formality.

*Tiberius* abolish'd these occasional Assemblies, on pretence of their being too numerous; and in lieu thereof proffer'd his Laws to the Senate, who never fail'd to confirm 'em: insomuch that the Laws of *Tiberius*, and his Successors, who kept the same Measures with the Senate, were esteem'd *Senatus-Consulta*.

Thus arose two Kinds of *Roman* Law, with regard to the Changes in the Legislative Authority: the Law establish'd by the People, *Plebiscita*; and the Laws of the Emperors, or *Imperial Laws*. See PLEBISCITA, and IMPERIAL.

During the Time of the Republic, and even under the Emperors, there were *Juris-Consulti*; who making publick Profession of the Study of the Law, interpreted, were consulted on the different Senses of the Laws, and gave Answers to the Questions propos'd to 'em hereon; which were call'd *Responsa Prudentium*.

*Papirius* was the first of these *Juris-Consulti*, after the Expulsion of the Kings; and *Modestinus* the last. See JURIS-CONSULTI.

After him, *viz.* in 240, these Oracles of the *Roman* Jurisprudence ceasing, out of their Writings, which made no less than 2000 Volumes, a Body of the *Roman* Law was afterwards compil'd, by Order of *Justinian*.

The Magistrates, on their side, in administring Justice, interpreted the Laws with more freedom than even the *Juris-Consulti*; and were, as it were, the living Voice of the Law.

The Emperors too, to render the Interpretations of the Magistrates less free and frequent, appointed, that they themselves should be consulted; and their Answers expected, as to Questions in Law, as may be observ'd from *Pliny*'s Epistles to *Trajan*. See RESCRIPT.

In proportion as new Laws were made at *Rome*, care was taken to collect and reduce 'em into *Bodies*. See BODY.

*Papirius*, in the Time of *Tarquinius Superbus*, made a Collection of the Regal Laws. And no sooner was the Republic establish'd, than the Laws of the *Twelve Tables* were drawn.

In the Time of *Julius Cæsar*, *Ofilius*, a Lawyer, began a Collection of the Edicts of the Prætors; which was not finish'd till the Time of *Adrian*, by another Lawyer, *Julianus*.

In the Time of *Constantine*, or his Children, two *Juris-Consulti* compil'd two Codes; from their Authors call'd *Gregorian*, and *Hermogenian Code*. See CODE.

Lastly, *Justinian*, finding the Authority of the *Roman* Law almost abolish'd in the West, by the Declension of the Empire; resolv'd to make a general Collection, of the whole *Roman* Jurisprudence; and committed the Care thereof to his Chancellor *Tribonianus*.

That Minister executed his Commission with a great deal of Diligence, not to say Precipitation: a new Code was finish'd in 529, and a Digest in 533. See DIGEST, and CODE.

The same Year he publish'd an Abridgment, thereof containing the first Principles and Elements of Law, under the Title of *Institutes*. See INSTITUTES.

In the Course of this Reign, *Justinian* made 168 Constitutions, and 13 Edicts; which made a considerable Alteration in the antient Law, and were call'd *Novels*. See NOVEL.

All these together, make the *Corpus Juris Civilis*, or Body of the *Civil Law*, as reduc'd, by order of *Justinian*.

For the Space of 300 Years, this System of Law obtain'd without any Innovation. But the new Constitutions made by the Emperors from time to time, at length occasioning some Alterations; the Emperor *Basil*, and *Leo* his Son, compos'd a new Body of the *Roman* Law, chiefly from the *Justinian*, in the *Greek* Language, dividing it into 7 Volumes, and 60 Books; under the Title of *Basilica*. From which time, *Justinian*'s Body had but little Credit in the East; the *Basilica* taking place of it. See BASILICA.

In the West, the *Civil Law* had a different Fortune: 'Tis ordinarily suppos'd not to have been there known till the Year 600; when *Lotharius* II. finding the Book at the taking of *Melphi*, a Town in *Naples*, made a present of it to the City of *Pisa*: Tho we find it quoted in several *Latin* Works long before *Lotharius*. 'Tis true, however, it was never taught publickly till the XIIth Century; when *Irnerius* first made profession of it at *Bologne*, in 1128; whence it was carry'd by his Disciples into other Countries; and in a little time was taught in all the Universities.

'Tis allow'd that the *Civil Law* contains all the Principles of Natural Equity; and that nothing can be better calculated to form good Sense, and sound Judgment. Hence, tho in several Countries it has no other Authority but that of Reason and Justice; 'tis yet every where referr'd to for Authority, and is that alone taught in Universities.

It is not receiv'd at this Day in any Nation without some Alterations: sometimes the *Feudal* Law is mix'd with it, or general and particular Customs; and often, Ordinances and Statutes cut off a great part of it.

In *Turkey*, the *Basilica* are only us'd. In *Italy*, the Canon Law, and Customs have excluded a good part of it. In *Venice*, Custom hath almost an absolute Government. In the *Milanese*, the Feudal Law, and particular Customs, bear sway. In *Naples* and *Sicily*, the Constitutions and Laws of the *Lombards* are said to prevail. In *Germany* and *Holland*, the *Civil Law* is esteem'd to be the municipal Law: but yet many Parts of it are there grown obsolete; and others are alter'd, either by the Canon Law, or a different Usage.

In *Friezeland*, it is observ'd with more strictness: But in the Northern Parts of *Germany*, the *Jus Saxonicum*, *Lubecense*, or *Culmense*, is preferr'd before it. In *Denmark* and *Sweden* it hath scarce any Authority at all. In *France* only a Part of it is receiv'd; and that Part is in some Places as a Customary Law: And in those Provinces nearest to *Italy*, the municipal Written Law. In Criminal Causes, the *Civil Law* is more regarded in *France*; but the manner of Trial is regulated by Ordonnances and Edicts.

The *Civil Law*, in *Spain* and *Portugal*, is connected with the *Jus Regium*, and Custom. In *Scotland*, the Statutes of the *Sederunt*, part of the *Regiæ Majestatis*, and their Customs, control the *Civil Law*.

In *England*, it is us'd in the Ecclesiastical Courts; in the Courts of the Admiralty; and in the two Universities: yet in all these restrain'd and directed by the Common Law. See LAW, COMMON-*Law*, &c.

CIVIL-*War*, is a War between People of the same State, or Citizens of the same City. See WAR.

CIVIL *Death*, any thing that retrenches, or cuts off a Man from *Civil* Society: as a Condemnation to the Gallies, perpetual Banishment, Condemnation to Death, and Excommunication: All which make a Man cease to be look'd on as a Citizen.

The Term is likewise apply'd to those who are no longer capable of acting in Temporal Concerns; as those who renounce the World, who retire and make Vows in a Monastery, &c. See MONK, VOWS, MONASTERY, &c.

CIVIL, in a Legal Sense, is also apply'd to the ordinary Procedure in an Action relating to some Pecuniary Matter, or Interest; in which Sense it is oppos'd to *Criminal*. See ACTION, CRIMINAL, &c.

CIVIL *Year*, is the Legal Year, or annual Account of Time, which every Government appoints to be us'd within its own Dominions. See TIME.

It is thus call'd, in contradistinction to the *Natural Year*; which is measur'd exactly by the Revolution of the Heavenly Bodies. See YEAR.

CIVIL *Month*. } See { MONTH.
CIVIL *Day*. } See { DAY.

CIVILISATION, a Law, Act of Justice, or a Judgment which renders a Criminal Process, Civil.

*Civilisation* is perform'd by turning the Information into an Inquest, or *vice versa*. See INFORMATION, INQUEST, &c.

CLAIM, in Law, a challenge of Interest in any thing that is in Possession of another; at least, out of his own. See CHALLENGE, POSSESSION, &c.

There are divers Kinds of *Claims*: as,

CLAIM *by Charter*. See CHARTER.

CLAIM *by Descent*. See DESCENT.

*Continual* CLAIM, a *Claim* made from time to time, within every Year and Day, to Land, or other Thing, which on some accounts cannot be attain'd without danger.

Thus, if I am disseis'd of Land, into which, tho I have a Right, I do not enter for fear of beating; I am to hold on my Right of Entry at my best opportunity; by approaching as near as I can, once every Year, as long as I live: thus I leave the Right of Entry to my Heir. See ENTRY.

CLAIR-OBSCURE, or CHIARO-SCURO, in Painting, the Art of distributing, to advantage, the Lights and Shadows of a Piece; both with regard to the easing of the Eye, and the Effect of the whole Piece. See LIGHT, and SHADOW.

Thus, when a Painter gives his Figures a strong Relievo, loosens 'em from the Ground, and sets 'em free from each other, by the Management of his Lights and Shadows; he is said to understand the *Clair-obscure*.

The *Clair-obscure* makes one of the great Divisions, or Branches of Painting; the whole of a Picture being resolvable into *Light*, and *Shadow*. See PAINTING.

The Doctrine of the *Clair-obscure*, will come under the following Rules.

Light may be either consider'd with regard to it self; to its Effects; the Place wherein 'tis diffus'd; or its Use.

For the 1st, Light is either *Natural*, or *Artifical*.

*Natural*, either comes immediately from the Sun, which is brisk, and its Colour various according to the Time of the Day; or 'tis that of a clear Air thro' which Light is spread, and whose Colour is a little bluish; or a cloudy Air, which is darker, yet represents Objects in their genuine Colours with more ease to the Eye.

*Artificial* proceeds from Fire, or Flame, and tinges the Object with its own Colour: but the Light it projects, is very narrow and confin'd.

For the 2d, the *Effects* of Light are either *Principal*, as when the Rays fall perpendicularly on the Top of a Body, without any Interruption; or *Glancing*, as when it slides along Bodies; or *Secondary*, which is for things at a distance.

3. For the *Place*, 'tis either the open Campaign, which makes Objects appear with great Softness; or an inclos'd Place, where the Brightness is more vivid, its Diminution more hasty, and its Extremes more abrupt.

4. For the *Use*, or Application: The Light of the Sun is always to be suppos'd without, and over against the Picture; that it may heighten the foremost Figures: the Luminaries themselves never appearing, in regard the best Colours can't express 'em. The chief Light to meet on the chief Group, and as much as possible on the chief Figure of the Subject. The Light to be pursu'd over the great Parts, without being cross'd, or interrupted with little Shadows. The full Force of the principal Light to be only in one Part of the Piece: taking care never to make two contrary Lights: Not to be scrupulously confin'd to one universal Light; but to suppose other accessory ones, as the opening of Clouds, &c. to loosen some Things, and produce other agreeable Effects. Lastly, the Light to be different, according to the Quality of Things whence it proceeds, and the Nature of the Subjects which receive it.

For *Shadows*; they are distinguish'd, 1st, into those form'd on the Bodies themselves, by their proper Relievos. 2d, Those made by adjacent Bodies; those that make Parts of any whole; and the different Effects, according to the difference of Places.

For the first, since the different Effects of Lights only appear by Shadows, their Degrees must be well manag'd. The Place which admits no Light, and where the Colours are lost, must be darker than any Part that has Relievo, and dispos'd in the Front. The Reflex, or return of the Light, brings with it a Colour borrow'd from the Subject that reflects it; and flies off at a greater or less Angle, according to the Situation of the reflecting Body, with regard to the luminous one:

one: Hence, its Effects must be different in Colour, and in Force; according to the Dispositions of Bodies. Deepenings, which admit not of any Light, or Reflex, must never meet on the Relievo of any Member of any great elevated Part; but in the Cavities or Joints of Bodies, the Folds of Draperies, &c. And to find Occasions for introducing great Shadows, to serve for the Repose of the Sight, and the loosening of Things; instead of many little Shadows, which have a pittiful Effect.

For the 2d, The Shadows made by Bodies, are either in plain and smooth Places, or on the Earth; wherein they are deeper than the Bodies that occasion 'em, as receiving less reflex Light; yet still diminish as they depart further from their Cause; or on the neighbouring Bodies, where they are to follow the Form of the said Bodies, according to its Magnitude and its Position, with regard to the Light.

For the 3d, In Shadows that have Parts, the Painter must observe to take for a Light in a shadow'd Place, the Teint, or Lustre of the light Part; and, on the contrary, for the Shadow in the lighten'd Part, the Teint, or Lustre in the Shadow: To make an agreeable Assemblage of Colour, Shadow, and Reflex in the shadow'd Part; but without interrupting the great Masses of Shadows: To avoid forming little Things in the Shadow; as not being perceiv'd, unless closely look'd at; and to work, as it were, in the general, and at one sight: Never to set the strong Shadows against the Lights, without softening the harsh Contrast by the help of some intermediate Colour: tho the Mass of Light may be plac'd either before or behind that of the Shadow; yet ought it to be so dispos'd, as to illumine the principal Parts of the Subject.

For the 4th, The Effects of Shadows are different, as the Place is either wide and spacious; as in those coming immediately from the Sun, which are very sensible, and their Extremes pretty abrupt; from the serene Air, which are fainter and more sweet; from the dark Air, which appear more diffus'd, and almost imperceptible; and those from an artificial Light, which makes the Shadow deep, and their Edges abrupt: or as it is more narrow and confin'd, where the Lights coming from the same Place; make the Shadow more strong, and the reflex less sensible. See COLOURING.

CLAIR-OBSCURE, CHIARO SCURO, is also us'd for a Design consisting only of two Colours; ordinarily black and white, sometimes black and yellow. See CAMIEUX.

Or, it is a Design only wash'd with one Colour; the Shadows being of a dusky brown Colour, and the Lights heighten'd up with white.

The Word is also apply'd to Prints of two Colours, taken off at twice; whereof there are Volumes in the Cabinets of the Curious in Prints.

The Word *Clair-Obscure* is a compound of two others. *Clair* is us'd among the *French* for those Parts of a Painting which reflect the most Light; and comprehends not only the Lights themselves, but also those Colours that are luminous. By *Obscure*, is meant not only all the Shades, but also all the Colours that are dusky. See COLOUR.

CLAMEA *admittenda in itinere per Attornatum*, is a Writ whereby the King commands the Justice in Eyre to admit ones *Claim* by an Attorney, who being employ'd in the King's Service, cannot come in Person.

CLAMOR, or CLAMEUR *de Haro*, a popular Term in the *French* Laws, importing a Complaint, or Cry, whereby any one implores the Assistance of Justice against the Oppression of another. See HARO.

*Du Moulin* calls it *Quiritatio Normannorum*. The *Haro* has the same Force with the Interdict *Retinendæ possessionis*. The Person on whom the *Haro* is cry'd, is oblig'd to cease his Enterprise, and the Crier leads him before the Judge; where each gives Security, the one to pursue the *Haro*, the other to defend it.

In the mean time, the Thing in dispute is sequester'd into the hands of a third Person. Nor can the Judge annul the *Clameur de Haro*, without a Mulct.

This Custom has prevail'd in *Normandy*, since the Conquest of *Raoul*, or *Rou*. *Du Moulin* says, the Word *Haro* is form'd of *Hal Rou*; the Cry whereby they invok'd that Prince.

CLAMP, in a Ship, a piece of Timber apply'd to a Mast, or Yard, to strengthen it, and prevent the Wood from bursting. See MAST.

CLAMP is also a little piece of Wood, in form of a Wheel, us'd instead of a Pulley in a Mortice.

CLAMP-*Nails*, are such Nails as are us'd to fasten on *Clamps*, in building and repairing of Ships. See NAILS.

CLAMPING, in Joinery, &c. when a piece of Board is fitted with the Grain to the End of another piece of Board cross the Grain; the first Board is said to be *clamp'd*.

Thus the Ends of Tables are commonly *clamp'd*, to preserve them from warping.

CLANCULARIES, CLANCULARII, a Sect of Anabaptists, who deny'd the Necessity of making any open Profession of the Faith; and taught that a private one would be sufficient. See ANABAPTIST.

These were also call'd *Hortularies*, and *Gardners*, from the Places they chose to assemble in, instead of Churches.

CLANDESTINE, any thing done secretly, and without the Knowledge of some of the Parties interested in it; or without the proper Solemnities.

Thus, a Marriage is said to be *Clandestine*, when perform'd without the Publication of Banns, the Consent of Parents, or the Knowledge of the Ordinary. See MARRIAGE.

The Council of *Trent*, and the *French* Ordonnances annul all *clandestine* Marriages.

The Word comes from the Preposition *Clam*, of κλείω, *claudo*, I shut, or κλέμμα, *furtum*, theft.

CLAP, in Medicine, the first Stage, or State of the Venereal Disease; call'd also a *Gonorrhæa*. See VENEREAL *Disease*, and GONORRHÆA.

Dr. *Cockburn*, and others after him, will have the *Clap* to consist in an Ulceration of the Mouths of the Glands of the *Urethra* in Men, and of the *Glandula Lacunæ* in Women; occasion'd by the Insinuation of an acrimonious, purulent Matter, contracted from an infected Person *in Actu Coitus*.

From these Glands, issues, or gleets a sharp, corrosive Matter, accompany'd with heat of Urine, Cordee, &c. which makes what is usually term'd the first Stage of the Distemper. See CORDEE, &c.

A *Clap* appears sometimes sooner, and other times later, tho generally in about three or four Days after the Infection is receiv'd; and discovers it self by the running, &c. of the Penis, with Inflammation of the Glans, or Nut of the Yard.

If the Person be affected with a *Phymosis*, or *Paraphymosis*; if the running be of a thin Consistence, a yellow or green Colour, and in great Quantity, and the Testicles swell'd, 'tis usually term'd a *Gonorrhæa Virulenta*; and the *Clap* suppos'd to be in its second Stage. See PHYMOSIS, &c.

Some Authors think, that in this Degree, or Stage, the Infection has reach'd the Mass of Blood, and the *Vesiculæ Seminales*: others insist, that the Symptoms may be accounted for from the Running, or *Virus*, being more corrosive; and by that means irritating and inflaming the adjacent Parts.

The Cure of a *Clap* consists in proper Evacuations, as Calomel-Purgatives, Refrigerant-Emulsions, Pouders, &c. Turbeth-Emeticks, and lastly, proper Terebinths, &c. to which some add Decoctions of the *Lignum Vitæ*, &c. As to Externals, they are generally comprehended under the form of Fomentations, Cataplasms, Liniments, and Lotions.

Late Authors, and especially Dr. *Cockburn*, have insisted on the Cure of a *Clap* by a particular Injection, without the use of any other Medicine.

This has given a Handle to Quacks, who, by affecting to do the same by their Injections, generally check the Running, and make a confirm'd Pox.

Turbeth-Mineral, Calomel, &c. given in small Doses, and continu'd for some time, so as to take effect by way of Alteratives, have been lately much commended as to Success. Mercurial Unguents, us'd in small Quantities, so as not to raise a Salivation, is said to cure all the Stages of the Venereal Disease: This Practice is usual in *Montpelier*, &c. See SALIVATION, MERCURY, &c.

Mr. *Becket*, in the *Philosophical Transactions*, attempts to shew, that the Disease we now call a *Clap*, is the same with that our Forefathers call'd a *Burning*, or *Brenning*; under which Name it was known several hundred Years before the commonly suppos'd Origin of the Venereal Disease; and that the Appellation *Brenning*, &c. was only discontinu'd as that of *Clap* commenc'd.

In a MS. as old as *Henry* IV. *Arden*, Chirurgeon to that Prince, defines Brenning to be a certain inward Heat and Excoriation of the *Urethra*; which, Mr. *Becket* observes, gives us a perfect Idea of what we now call a *Clap*. For frequent Dissections of such as have labour'd under that Disease, have made it evident, that the *Urethra* is excoriated by the Virulency of the Matter they receive from the infected Woman: Which Excoriation, or Ulceration, he adds, is not confin'd to the *Ostiola*, or Mouths of the mucous Glands of the *Urethra*, as has been lately imagin'd; but may equally attack any Part of the *Urethra*.

The heat, or *burning* which such Persons feel in making water, is a Consequence of this Excoriation of the *Urethra*; the Salts contain'd in the Urine pricking and irritating the nervous *Fibrillæ* of the Urine, thus divested of its natural Membrane. See BURNING.

CLARENCIEUX, the second King at Arms; thus call'd from the Duke of *Clarence*, to whom he first belong'd. See KING *at Arms*.

*Lionel*, third Son of *Edward* III. having by his Wife the Honour of *Clare* in the County of *Thomond*, was hereupon created Duke of *Clarence*; which Dukedom afterwards escheating to *Edward* IV. he made this Herald, who properly belong'd to the Duke, a King at Arms; naming him *Clarencieux* in *French*, and *Clarencius* in *Latin*. See HERALD.

His Office is to marshal, and dispose of the Funerals of all the lower Nobility; as Baronets, Knights, Esquires, and Gentlemen on the South side of *Trent*: whence he is also call'd *Surroy*, or *South-Roy*, in contradistinction to *Norroy*. See NORROY.

CLARET, or CLAIRET, *Pale red*, a Name the *French* give to such of their red Wines as are not of a deep, or high Colour. See WINE.

The Word is a Diminutive of *clair*, clear, bright, transparent.

CLARET, CLARETA, in the antient Pharmacy, was a kind of Wine impregnated with Aromatics; sometimes also called *Hippocras*, or *Vinum Hippocraticum*; because suppos'd to have been first prescrib'd by *Hippocrates*.

It has its Name *Claret*, from its being *clarify'd* by Percolation thro' a Wine-Sack, or Bag, call'd *Hippocrates*'s Sleeve.

CLARICORD, or *Manichord*, a Musical Instrument, in form of a Spinett. See SPINETT.

It has 49 or 50 Stops, and 70 Strings, which bear on five Bridges; the first whereof is the highest, the rest diminishing in proportion. Some of the Strings are in Unison; their Number being greater than that of the Stops.

There are several little Mortaises for passing the Jacks, arm'd with little Brass Hooks, which stop and raise the Chords in lieu of the Feather us'd in Virginals and Spinetts. But what distinguishes it most, is, that the Chords are cover'd with pieces of Cloth, which render the Sound the sweeter; and deaden it so, as that it can't be heard to any considerable distance.

Hence some call it the *dumb Spinett*; whence it comes to be particularly in use among the Nuns, who learn to play, and are unwilling to disturb the Silence of the Dormitory.

The *Claricord* is more antient than either the Spinett or Harpsicord; as is observ'd by *Scaliger*, who only gives it 35 Chords.

CLARIFICATION, in Chymistry, the Act of clearing, or fining of Liquors from their grosser Parts. See REFINING.

*Clarification* is perform'd by Ebullition, Despumation, and Colature or Filtration.

The Term is chiefly apply'd to Juices, Decoctions and Syrups, which are *clarify'd* by Filtration, or by passing 'em thro' a Strainer, after having beat them up into a Froth with the Whites of Eggs; the viscous Parts of the Eggs intangling the thick gross Particles of the Liquor, retain them in the Strainer. See FILTRATION.

Sometimes the Mixture is boil'd; by which means, the Eggs intangle the grosser Parts, and carry them up to the Top in a tough Scum; which is either taken off with a Spoon, or separated by a Flannel Bag, as before, call'd *Hippocrates*'s Sleeve. See DESPUMATION.

Another Method is, by letting the Liquor stand in a convenient Vessel, till the grosser Particles settle.

In distill'd Waters, &c. which have a milky hue, or are turbid, it is generally effected with fine Sugar, mix'd with a small quantity of Allum; which will bear down the oily Parts, and leave the rest clear. See DEPURATION.

Many Liquors are *clarify'd* by passing them thro' a thick brown Paper; among others, Hippocras, Hydromel, &c. See HYDROMEL, &c.

Fine and delicate Wines are usually *clarify'd* with Fish-Glue: The thicker Wines with Omelette, or whites of Eggs diluted in Water. Sometimes with pouring them thro' a heap of little Chips. See WINE.

'Tis an Error to suppose that Fish-Glue, or Omelette, can be prejudicial to the Health; since both the one and the other fall down with the Lees, without producing any ill Effect. That which makes Wines unwholesom, is not the *clarifying* by these innocent means, but the Mixtures and Sophistications of the Vintners, to make 'em brisk, and bring them to life again after the Fret; which is done with Aqua vitæ, Spices, Pidgeons Dung, &c.

The Antients *clarify'd* their Wines by pouring them from off the Lees, into another Barrel, thro' a Tin Strainer.

Sugar is *clarify'd* with the Whites of Eggs and Sugar beat together. See SUGAR.

CLARIGATIO, or CLARIGATION, in the Law of Nations, a loud, clear Call, or Summons made to an Enemy, to demand Satisfaction for some Injury receiv'd; in defect whereof, recourse will be had to Reprisals.

*Clarigatio* is the same with what the *Greeks* call ἀνδρολη-ψία. See ANDROLEPSIA.

*Nauda* uses the Word in a somewhat different manner. 'Reprisals, says he, signify the same as *pignorationes Budæo, aut Clarigationes Hermolao*: For, as to the *Greek* 'Word *Androlepsia*, it is equivalent to the Latin *pignorandi potestas*.

CLARION, a kind of Trumpet, whose Tube is narrower, and its Tone acuter and shriller than the common Trumpet. See TRUMPET.

*Nicod* says, the *Clarion*, as now us'd among the *Moors*, and *Portugueze* who borrow'd it from the *Moors*, serv'd antiently for a Treble to several Trumpets, which sounded Tenor and Bass. He adds, that it was only us'd among the Cavalry and the Marines.

*Menage* derives the Word from the Italian *Clarion*, of the Latin *Clarus*, by reason of the Clearness of its Sound.

CLARION, in Heraldry, is a Bearing of this Figure. He bears Ruby three *Clarions* Topaz; being the Arms of the Earl of *Bath*, by the Name of *Greenvile*.

*Guillim* takes these *Clarions* to be a kind of old-fashion'd Trumpet; but others rather think, they represent the Rudder of a Ship; others a Rest for a Lance.

CLARO-OBSCURO. See CLAIR-OBSCURE.

CLASPERS, in Botany, are Tendrels, Threads, or Ligaments of a middle Nature between that of a Root and Trunk; whereby Shrubs, and other Plants, take hold of Trees, or other things near 'em, for their Support, &c.

The Wisdom of the Creator is very conspicuous, in this Provision for some Species of Plants, which need it; as Ivy, Vines, Briony, &c.

The Contrivance is various in various Subjects. *Malpighi* observes, that the *Claspers* of Ivy are roundish, and cover'd with Hair; and what is very remarkable, they yield a glutinous Teribinthine Humor, by means whereof they adhere closely to Stones, &c. Nature, he adds, uses no less Artifice in the *Vitis Canadensis*.

*Claspers* serve somesimes for Support only; as those of the Vine, Briony, &c. whose Branches being long, slender, and brittle, would be weigh'd down by their own load, and that of their Fruit; but for these *Claspers*, which by a natural Spire, or Circumvolution, catch hold of any adjacent body.

*Claspers* sometimes also serve for a Supply of Juice; as in the Trunk-Roots of Ivy, which being a tall Plant, and of a compact Substance, the Sap would not be sufficiently furnish'd to the upper Sprouts without this Expedient.

*Claspers* also sometimes serve for Stabiliment, as those of Cucumbers; for Propagation, as those of Camomile; and for Shade, Stabiliment, and Propagation all together, as those of Strawberries.

CLASS, or CLASSIS, a distribution of Persons, or Things, arranged them according to their Merit, Value, or Nature.

The Word comes from the Latin *Classis*, of the *Greek* καλέω, *congrego*, *convoco*; a *Class* being nothing but a multitude, assembled apart.

CLASS, CLASSIS, in Antiquity. See CLASSIC.

CLASS is particularly us'd for a Distinction among Scholars; who are distributed into several *Classes*, or Forms, according to their Capacities and Attainments.

*Quintilian* uses the Word *Classis* in this Sense in the 1st Book of his *Institutiones*.

CLASSIC, CLASSICAL, a Term seldom us'd but for Authors read in the *Classes*, at Schools, and who are in great Authority there. See SCHOOL.

*Aquinas*, and the *Master of the Sentences* are *Classic* Authors in the School Divinity; *Aristotle*, in Philosophy; *Cicero* and *Virgil* in the Humanities. *Aulus Gellius* ranks among *Classic* Authors, *Cicero*, *Cæsar*, *Salust*, *Virgil*, *Horace*, &c.

The Term seems properly applicable only to Authors who liv'd in the Time of the Republic and the *Augustan* Age, when the *Latin* was in its Perfection. It appears to have taken its rise hence, that an Estimate of every Person's Estate being appointed by *Servius Tullius*, he divided the *Roman* People into six Bands, which he called *Classes*.

The Estate of those of the first *Classis* was not to be under 200 Pounds: And these, by way of Eminence, were call'd *Classics*, *Classici*. Hence, Authors of the first Rank came to be call'd *Classics*: all the rest were said to be *infra Classem*.

The first *Classis*, again, was subdivided into *Centuries*; making fourscore Centuries of Footmen, and eighteen of Horsemen. See CENTURY.

Each *Classis* consisted, one half of the younger sort, who were to make War abroad; and the other of old Men, who staid at home for the Defence of the City.

CLAVICULÆ, *Channel Bones*, in Anatomy, two small Bones, situate at the Basis of the Neck, and atop of the Breast. See NECK, THORAX, &c.

They are about half a Foot long, of the thickness of a Finger, and a little bent at each end, and that different ways, somewhat like the Letter S; and are thus call'd, as being the Keys, or *Claves* of the Thorax.

Their inner Substance is spongy; whence they are brittle, easily broke, and easily coalescing again.

They are join'd to the *Acromium* of the Scapula *per Synchondrosin*; and on the Forepart, *per Arthrodiam*, to a Sinus on each side of the Upper-part of the *Sternum*.

Their Use is, to fix the *Scapulæ* with the *Sternum* and the Arms, and to prevent 'em from slipping too forward upon the Thorax.

CLAVIS, a *Latin* Word, sometimes us'd in *English* Writers for a *Key*. See KEY.

CLAUSE, an Article, or particular Stipulation in a Contract; a Charge, or Condition in a Testament, &c.