SUBSCRIPTION differ from Obfervation, in that Obfervation is a false Expreffion of the Quality of a Thing, *as", on the one Party, 4 Subcription, a want of Expreffion; or a fraudulent Re- icracy or Concealment of a Thing, which would have prevented the obtaining of it for more difficult.

The Word is fom'd from the Latin, ficta, under, and rype, I crop.

SUBSCRIPTION or SUBRITTITUOS, a Term applied to a Letter, Licence, Patent, or other Act, fraudulent- ly obtained of a Superior, by concealing some Truth, which had it been known, would have prevented the Conceal or Grant.

The Benefit of Letters, Licences, &c., is forfeited, when they are found contrary to the Informations given; they being then reputed Subscriptions.

In its political Sense, Subcription implies a Vow of any Kind, whether of a Perfon to a Perfon, or of a Perfon to a Thing.

There are two Kinds of Subscriptions, the one Conver- nent, and the other Legal.

The Convignet, is a Convey, whereby a Creditor trans- fers his Debt, with all Appurtenances thereof, to the Profit of a third Person, who agrees to pay the Debt, in it in full.

Legal Subcription, is that which the Law makes in favour of a Perfon, who discharges an antecedent Creditor; in which Caffe there is a legal Transliteration of all Rights of the ancient Creditor, to the Perfon of the one, and to the other.

This the Civilians more usually call Subscription, as being wholly the Work of the Law, and to distinguish it from the conventional Subcription, which they also call Coven. See Coven, &c.

The Word is form'd from the Latin, Subscriptio, of the Verb Rccoare, which, among the ancient Romans, signified to ask, or to require, a Share, when the Obfervers, that call'd the Laws themselves Regulators, in regard that the Perfon of the Debt should be given up being ask'd by the Magistrates. And as Laws by made the People could not be changed without their Consent, and what is more, that the Consent, which had been given to the Law wholly abolifh'd, Lece derogatius; if only a Part of it were to be abolifh'd, Lece derogatius; and if any Clause or Amendment were added to it, Lece derogatius.

In its political Sense, Subscriptions were also Subscriptions in the Place of the old ones; for during the Time of the Republic, no Magistrate could be, but by Consent of the People, nor, of consequence, but by Law; for whatever the People thought good, was Law. This was the Reason, why Cicero's Law, That Subrogare and Substituere per Legem, were Reciprocals.

SUBCAPULARIS, in Anatomy, a Muscle arifting from the Pectoral Quadrant into the Intercostal, and of the IF. which is about the whole Convex, or Under-side of it, is ligated by a Semilunar Tendon, into the Neck of the O. Humeri, and draws it down to the Side of the Trunk.

SUBSCRIPTION, or the putting either at the bottom of a Letter, Writing, or Instrument. See Signature.

In Church History, we meet with Inflances of Subscrip- tions, written in the Blood of Jesus Christ, Nesteas, in the Life of the Manichaei, &c., and that Subscription made at the Council, wherein that Father was depos'd, says, They Sub- Scrib'd not with common Ink, but, what strikes a Man with Horror, with a Blood which the Blood of Christ. The Histor- ian Thomaio, tells us, That Pope Theodore mix't the Blood of Christ with the Ink, wherein he wrote the Depo- sition of Pelagius.

SUBSCRIPTION, in the English Commerce, is used for the Share or Interest, peculiar Persons tak'n in a public Stock, or a Trading Company, by writing their Names, and the Shares they require, in the Register thereof. Half the Com- panions are equally carried on in Subscription. See Com- pany, BUBBLE, Fund, &c.

The French have likewise adopted the Word Subcription, uing it in speaking of the Actions of the India Company.

An Action of Subscription is an Action which is properly only an Action begun, or an Engagement, by making the first Payment, to acquit the reft in the Time limited; and that the other is the whole Action, proceed'd in all its Parts, by a Subscription.

SUBSCRIPTION, in the Commerce of Books, particularly signifies an Engagement a Perfon enters, to take a certain Number of Books or Books of a particular Kind, defined; and the reciprocal Obligation of the Bookfeller or Publisher, to deliver the said Copies on certain Terms.

The usual Conditions of these Subscriptions, are, on the Part of the Undertaker, the Bookfeller or Publisher, to deliver to a Subscriber than to another, by one Third or one Fourth of the Price; and on the Part of this latter, to advance half the Money on the Demand, and to pay the other half on the Delivery of the Copies: An Agreement equally advantageous to the one or both parties, as the Bookfeller is hereby furnisht with Money to carry on his Works, which would otherwise be above his Stock; and the Subscriber, being interest'd for his Money, by the moderate Price the Book stands below at.

Subscriptions had their Rife in England, and 'tis but very lately that they got into other Countries. They were first made in the second half of the 16th Century, for the printing of Wodrow's Polyglot Bible, which is the First Book ever printed by Way of Subscription. From thence, they spread a few Years ago into Holland, and are just now introduced into France. F. Martinet's Collection of Antiquities, is the first Book there publish'd by Subscription, which were so very numerous, that great Numbers of the same Method has been once propos'd, for the Publication of an English Bible by the Benefi- cients; but not with equal Success.

All the other Books since print by Subscription, are M. Decker's Translation of Plutarch's Lives; the Description of Verdades, and F. Daniel's History of the French Militia.

In England, they are become exceedingly frequent; and their Frequency has render'd them liable to some Abuses, which begin to discredit them.

SUBSEQUENT, something that comes after another, and is placed in Order to the Time. When two Festivals happen on the same Day, the principal of the two is cele- brated; and the other transfer'd to the Subsequent Day, i.e. to the Morrow.

SUBSEQUENTLY, SUBSEQUENT OR PARIETAL (See Ratio, SUBSIEPTUARIETAT SUBSEQUENTIARUM.)

SUBSIDY, in Law, any Aid, Tax or Tribute granted by Authority of Parliament to the King; or on pestilential Occasions of War; levied either on Perons, Lands or Goods. See Duty.

Such are the Land Tax, as 'tis call'd, which is usually at the Rate of three or four Shillings in the Pound, for Lands, and of two Shillings and eight Pence for Goods, &c. See Tax.

In the Lift of English Duties, or Impositions, are divers Kinds of Subsidies: Old Subsidy, Additional Imposition to the Support of the National Rent; Two-thirts Subsidy. See Duty, Customs, &c.

The ancient Roman Kings had no Subsidies collected after the Monarchies of ours; but in lieu thereof, they levied several Confederations, whereby they levied Money or personal Service on the People, for the Repairing of Cities, Castles, Bridges, military Expedi- tions, &c, which they call'd Tungi, Brugge, Hareafe, Heron, and So on.

But upon the Lands becoming oppreff'd by the Domains, King Edward, in the Year 107, agreed to pay them yearly 10,000 Pounds for Redemption of Peace, which Sum was afterwards increase'd to 15,000, and at length to 45,000 Pounds, which was call'd Dangerl, and was levied on Land; such Hide, or Plough-land, that of the Church only amount'd to the Fourth part of 12 Pounds. See Danegeld.

Hence the Tributes come, called Hareafe, and So on, that afterwards became common to all Taxes and Subsidies imposed on Lands; as those on Castle, being call'd Har- riegeld, See Hagehed. Both these the Normans sometimes call'd from the Greek, Texes, and sometimes from their own Language, Tailages, and sometines, according to the Gallum beyond Sea, Subsidies and Taxa.

After the Conquest, these Subsidies seem to have been granted differently from what they now are; as every Ninth Lamb, every Ninth Fleece, every Ninth Sheep, &c. Sometimes was every Fifth, and sometimes every Fifteenth, &c. See Tenth, Fifteenth, &c. See also Bineviolence.

Benevolence, the King alone, by his own Authority, impose Subsidies on his People, at his own Discretion, or Gratios fays, that those who pay Subsidies to other Sovereigns, to engage them in their Defence against powerful Enemies, by which the State of the Country is endangered, and such an Acknowledgment diminishes the Will to defend themselves, they may be underflood of such States as are too weak to defend themselves, and who, in refpect hereof, render themselves, in fome Degree, subject, though they are able to defend them- selves, as fulfilling by their own Strength, give Subsidies to their weaker Neighbours, to prevent their being over-run by others.

Such, e. g, as the King of France is, with regard to Spain, and some other States, whose Generous grants Subsidies in the Treasures, he concludes with them.

SUBSTANCE, in Physics, something that we conceive to subsift of itself, independently of any created Being, or any particular Made or Action. &c.

[ N N ]

Thus
Thus a Piece of Wax is a Subsistence; because we can conceive it as subsisting of itself, and of its own Nature, without any Dependancy on any other created Nature, or what is any particular Mode, Form, Colour, &c. See Mode.

Simpson maintains, that there is but one only Subsistence in Nature, whereof all the Creatures are so many different Modes, or Parts; and takes the Soul of the same Subsistence with the Body. The whole Universe, according to him, is but one Subsistence; which Subsistence, he holds endow'd with an Infinity of Attributes, in the Number and Variety of which there is no Bound or Limitation. Thus the Modifications of this Subsistence, consider'd as extended; and all the Spirits Modifications of the same Subsistence, consider'd as Thought. See Body and Thinking.

For the Idea of Subsistence, is much more Orthodox: Our Idea of Subsistence, that great Author observes, are only such Combinations of simple Ideas, as are taken to represent distinct substances, and whereof Persons in Ethics, and Speculative Philosophers, find no Combination of simple Ideas, is always the Chief. Thus the Combination of the Ideas of a certain Figure, with the Powers of Motion, Thought and Resolving, joined to Subsistence, make the ordinary Idea of Man; and thus the Mind observing several simple Ideas to go confoundly together, which being prejudiced to belong to one Thing, are call'd, and united in one Subject, by one Name; which we are apt, afterwards, to call a Body. We mean, or, we think not the simple Ideas to subsist by themselves, but appertaining some Substantially, wherein they subsist, which we call Subsistence. See Substantiation.

Thus we do not so much distinguish that which is nothing but the simple, as yet unknown Support of their Qualities, which are capable of producing simple Ideas in us. See Quality.}

Modification of a Subject are of great Use; but being out of this obscure and general Idea of Subsistence, together with such Combinations of simple Ideas, as are observed to exist together, and subsisted to flow from the internal Constitution, and the Name with which they are connect'd.

Thus we come by the Ideas of Man, Horse, Gold, &c. Thus the sensible Qualities of Iron, or a Diamond, make the complex Idea of those Subsistence, which a Smith, or a Jeweller, immediately knows better than a Philosopher. See Definition.

The definition happens concerning the Operations of the Mind, in thinking, reasoning, &c., which are not to be suffer'd to subsist by themselves, nor yet to be considered how these Principles that belong to Body, or be produc'd by it; the mind takes us the Actions of some other Subsistence, which we call Spirit; of whose Subsistence, as well as that of a Subject, the mind is not so remote from our Conceptions, as that of Spiritual Subsistence. Hence we may conclude, that he has the perfect Idea of any particular Subject, who has a clear idea of all the sensible Qualities which do exist in it. Among which, we are to reckon its active Powers and passive Capacities, not the simple Ideas.

Thus we generally distinguish by secondary Qualities; for, on our Subjects fail us in the Discovery of primary ones, as the Bulk, Figure, Texture, &c. of the minute Parts of Bodies, on their real Constitutions and Differences depend. See Particles.

But secondary Qualities are nothing but Powers, with relation to our Subjects.

The Ideas that make the Complex ones of Corporal Substances, are of three Sorts: First, the Ideas of primary Qualities of Things, which are discover'd by our Senses: such as Bulk, Figure, Motion, &c. Secondly, the sensible Qualities of a Subject, which are nothing but the Ideas of several Ideas in us, by our Senses. Thirdly, the Agencies we consider in any Subject, to cause or receive such Alterations of primary Qualities, as the Subject itself of all that could produce us in different Ideas from what it did before.

Besides the complex Ideas we have of material Substances, by the simple Ideas taken from the Operations of our Senses, it is evident, that we have no other Ideas of them than the several Ideas we had of Material, Understanding, Willing, Knowing, &c. co-existing in the same Subsistence, we are able to frame the complex Idea of a Subject, that is, of all the several Properties of a Material Subsistence, as clear as that we have of a Material.

By joining thereto with Subsistence, of which we have no distinct Idea, we have the Idea of Spirit: And by putting the Power of thinking, and the Power of being mov'd with joined with Subsistence, of which likewise we have no negative Idea; we have the Idea of Matter.

Further, there are other Ideas of Subsistence, which may be called Collectors, which are made up of any particular Subsistence, consider'd as united into one Idea, as a Troop, Army, &c., which the Mind does by its Power of Composition. Their collective Ideas, are but the artificial Draughts on the Mind, bringing Things remote, and independent, in the Opinion of the better and better united and discoursed of them united into one Composition, and so consider'd by one Name. For there are no Things to remove, which the Mind can, by this Art of Composition, bring into one Idea, as is visible and real to Providence, the Name Universe, See Composition.

SUBSTANTIAL, or SUBSTANCIAL, in the Schoolmen's Language, is an Idea which can subsist without a Subject. Thus it is generally disput'd, whether there can be such Things as Substantial Forms, i.e. Forms independent of all Matter; or Forms that are Subsistences themselves. See Substantial.

Substantial, is also used in the same Sense with Essential; in opposition to Accidentals, in which relation, it gives room for abundance of Dillingo's. See Essential.

And this Idea of a subject is ascribed to God, as to the Noun or Name, when the Object it designates, is consider'd, simply, in itself, and without any regard to its Qualities. See God.

When the Object is consider'd, as co-existent with certain Qualities, the Noun is said to be Adjective.

For a more palpable Criterion; All Nouns, to which one cannot attach the Word Things, are Substancials; and all those to which Thing may be added, are Adjective. See Adjective.

F. Trewger observes, 'tis a common Mistake in Grammarians, and Logicians, to call all Four Substancials, to be that which denote or express a Substantial.

The Mistake arises hence, that finding all Substancials express'd by Substantials, they have call'd all Kinds of Nouns, Substantials, of which a Substantial is a Proper Noun; and Substancials witness the Nouns Accidentals, Lightness, &c. which are far from expressing Substancials, and yet are true Substancials. Perhaps Grammarians mean nothing here by Substantials, but the Subject spok'd of: If to, the Definition is laudable.

Nouns Substancials sometimes, become Adjectives; and Nouns Adjectives become Substancials. In effect, the Nature of the Subjective being to express the Quality of an Object, if that Quality be the Object itself spok'd of, then, on the Foot of our Definition, it becomes a Substantial. If, therefore, you see a Proper Noun, which is apparently an Adjective, because it represents the Princess, as a Quality of Goodness. But if I say, 'The God ought to be prefer'd to the Bird,' it's evident, God is the Subj ect spok'd of, and, consequently, a Substantial. Indeed, Cullum does not allow us to use all Adjectives in differently, as Substancials; nor all Substancials, as Adjectives.

The Laws regarded herein are as follow:

Nouns either signify an Individual, as Secretaries, Acrender, &c. or a Species, as Man, Horse, &c. or an essential Quality, as Rational, Material, &c. or an accidental one, as Fowl, Meat, &c. See Quantity, Dignity, Office, Art, &c. as King, President, Philosopher, &c. Then we have four Kinds of Nouns; whereof the 1st is very rarely taken adverbially; for as they signify Individuals or Persons, so they may be aptly used as Adjectives; but the Thing they properly signify; yet we have sometimes known the Name of Cats taken adverbially; as, This is to be Cats, indeed. Nor does Mulheren's simple to lay in French, have any other Signification, more and more a Philosopher than any of his Predecessors.

Now for Adjectives taken Substancially, etc. Participles Passive, are very rarely thus taken; though we sometimes find them so used by the Lower; The Touched have the Advantage of the Unالأخ. This is not a Sable, &c. And, 2d Participles Active are taken adverbially, though we almost every one, &c. Say the loving, the Reading; &c. The loves of the Lord, &c. We yet say Student, the Protestant, the Tenant, the Apellant, etc. &c. Participles Adjectival, imply a thing applied to Men, are not only used Substancially, but are even become Substancial by use; whether they be such as regard Religion; as Christian, Pagan, Mahometan, &c. Or Opinion; as Stoic, Peripatetic, Grecian, &c. Or Country; as the English, French, Italian, etc. Or the Temperaments, as the melancholy, Phlegmatic, Choleric, &c. Under the same Rule, are likewise comprized it,
he headed abundance of Adjectives, signifying a Number of People agreeing in some common Attribute, as, the Learned, the Great, the Devout, the Brave, the Difficult, &c. But Ute is here to be regarded, for we don’t dispose of the Eloquence, as we say the Learn’d; but Elegant Writers, &c., ‘Tis Custom, and the Ear alone, that are to decide about their Difference. Again, Adjectives take substantively, for other Things before Men, are either so used, to signify a Number or Set of Things that have some common Quality, or to express and denote that Quality the Thing by which, as in them of Men, there are some authorized by Custom, and others found every Day on their Model.

With regard to which last, Ute, again, and the Ear, are to decide. It is well known, that the Adjective, of the articles, is used substantively; as the White, Black, Green, &c. Some of those of Qualities; as the Cold, &c. Tho’ of Time; as the Past, Present, Future: And many of other Matters; as the Agreeable, the Inconvenient, the Favourable, the Offensive, but also in the Comparative and Superlative Degrees, that Adjectives are used substantively; as The Lowest, The Highest, &c.

SUBSTITUTE, a Person appointed to officiate for another, in case of Absence, or other legal Impediment. In the French Law, the Procureur, or Proctor, are obliged to name two of their Brethren for Substitutes, whose Names are written after theirs, in the Left Hand receive Significations and Summons made in their Absence.

The Word is form’d from the Latin, subs, under, and, agere, to go, or rather, to officiate in Succession.

The Root of the great Centaur, and sometimes Monk’s Rhubarb, are used as Substitutes to Rhapsodic.

SUBSTITUTION, the taking of one Word for another; as, a Male, State, Manner, Person or Number of a Word for that of another. This the Grammarians otherwise call Synonym. See SYNONYMY.

SUBSTITUTION, in the Civil Law, a Disposition of a Testator, whereby he Substitutes one Heir to another, who has only the Ultra-fruit, and not the Property of the Thing left him.

Substitution is a kind of Inheritance, call’d Fiduciacy, or Fide-commissio, in regard the immediate Inheritor has only the Ultra or Fruit of the Thing; the Body thereof being Substituted and affected to certain Persons, who are likewise to have the Ultra-fruit, but they don’t lay claim to, nor possess the Property of the Thing left him.

Substitution answers to Remainder, in our common Law. See Remainder.

Among the Romans, there were abundance of these Fiduciairy Heirs; who enjoyed Inheritance, till they returned them into the Hands of the Testator, and the Remainder. For why they did not likewise rerove the Fruits, or that the Fruits were not descend’d to make a Part of the Inheritance, but only of the Thing, was, that the Fiduciacy was oblig’d to run the Risks, and to refund the Charge of the Culture of the Land.

SUBSTITUTATE, in Algebra, Fractions, &c. is the putting in the Room of any Quantity in an Equation, some other Quantity, which is equal, but expected after another Matter. See Quantity.

SUBTRACTION, in Arithmetic, the second Rule, or other Operation, in Algebra, whereby we deduct a less Number from a greater Number, or the difference of them. Or, more justly, Subtraction is the finding of a certain Number from two Homogeneous ones given; which, with one of the given Numbers, is equal to the other. See ARITHMETIC.

The Doctrine of Subtraction is as follows:  To subtract a left Number from a greater.

1. Write the left Number under the greater, in such Manner, as that homogenous answer to homogenous Figures, i.e. the Unity under Unity, Tens under Tens, under Addition, under Addition, under Addition. 2. Under the two Numbers, draw a Line. 3. Subtract, generally, Units from Units, Tens from Tens, Hundreds from Hundreds; beginning at the right Hand, and proceeds to the left; and the Remainder is found, by subtracting their correspondent Places, under the Line. 4. If a greater Figure come to be subtracted from a less, borrow an Unit from the next place to the left, and the Remainder is found, by subtracting Figures from the Sum; or if a Cipher chance to be in the next left-hand Place, borrow the Unit from the next further Place. By Rote, any Number may be subtracted out of another greater. For Example 1.
If the Quantities have different Signs, the Subtraction is converted into Addition, and to the Aggregate is prefixed the Sign of the Quantity, whence the Subtraction is to be made:

For Example:

\[ 8a-5c+g+2 = 8b-5d-9c+6g \]

If the Quantities be expected in different Letters, they must be connected; only the Characters of the Subtrahend must be changed into the contrary ones; For Example:

\[ a + d \]
\[ a - d \]
\[ c + b \]
\[ c - b \]
\[ a + c + b + d \]
\[ a - c - b - d \]

**Subtraction of Logarithms**

**Subtraction of Logarithms of Fractional Quantities**

**Subtraction of Decimals**

**Subtraction of Fractions**

**SUBTRACTION, in Building. See Foundation.**

In Masonry, in laying, a right Line, whereon the Style or Gnomon of a Dial is erected. See Gnomon.

In Polar, Horizontal, Meridional and Northern Dials, the Subtangent Line is the Meridian Line, or Line of 12 a Clock; in the Azimuth, or Longitude of the Plane, whereas the Dial is delineated, with that of the Meridian. See MERRIDIAN.

In Easterly and Wasterly Dials, the Subtangent Line is the Line of Six a Clock; or the Interpolation of the Plane, whereon the Dial is delineated, with the prime Vertical. See DIAL.

THE TANGENT of a Curve, is the Line that determines the Interpolation of the Tangent with the Axis; or, that determines the Point where the Tangent cuts the Axis, prolonged. See Curve.

Thus, in the Compass A.M. 4½ (Thb. Antiklips, Fig. 10.) the line TP intercepted between the Meridional P.M., and the Tangent 'PM', is the Sub-tangent. And PR is to PM, as PM to PT, and PM to PT, as MR to TM.

"For a Rule in all Equations, that if the Value of the Sub-tangent come out positive, the Point of Interpolation of the Tangent and Axis, falls on that Side of the Ordinate, where the Vertex of the Curve lies; as in the Parabola and Paraboloids.

If it come out Negative, the Point of Interpolation will fall on the contrary Side of the Ordinate, in respect of the Vertex of the Curve, as in the Ellipse, as if in the Hyperbola.

And, universally, in all Paraboloid, and Hyperboloid Figures, the Sub-tangent is equal to the Exponent of the Power of the Ordinate, multiplied into the Abcissa. Thus in the common Parabola, whose Property is \( y = x^2 \).

The Subtangent is in Length, equal to \( x \), the Abcissa multiplied by 2, the Exponent of the Power of \( x \), the Square of the Ordinate, that is, it is equal to twice the Abcissa; and by the former Rule for Paraboloid Figures, it must be taken above the Ordinate, in the Axis produced.

Thus, also, in one of the cubical Paraboloids, where \( y = x^3 \).

The Length of the Subtangent will be \( 2x \) of the Abcissa. Thus in the Figure, you will see that the Subtangent in any Curve, is a Line, which determines the Interpolation of the Tangent and Axis.

SUBTENSE, in Geometry, a right Line, opposite to an Angle, and presumed to be drawn between the Two Extremities of the Arch, which measures that Angle. See Angle.

The Subtense of the Angle coincides with the Chord of the Arch. See Chord.

In a Right-angled Triangle, the Square of the Subtense of the right Angle, is equal to the Square of the Subtense of both the other Angles; by the 47th Prop. of Euclid. This wonderful Property of that Triangle, was first discovered by Ptolemaus, who in his Mechanism, or Catalogue of the Stars, hereby occasion'd, sacrificed a Heatsman. See Triangle.

The Word is form'd from the Latin, sub, under, and radius, a Ray.

SUBTERRANEAN, something under Ground. See Earth.

SUBTERRANEUS, something under Ground. See Fossil.

Naturalists talk much of Subterraneous Fires, as the Cause of Volcanos, as the Fire and Volcanos, and Subterraneous Winds, as the Cause of Earthquakes. See Earthquake.

Mr. Boyle gives us an Instance, from the Difference of the Ambient, Hungry Alps, of a huge Subterraneous Oak dug out of a Salt Mine in Transylvania, so hard, that it could not easily be wrought on by Iron Tools; yet which, being brought to the Air out of the Mine, became so rotten, that in four Days, it was easy to be broken and crumbled between one's Fingers.

Mr. Barrow adds, That the Trees turned out of the Earth at Middelburgh and Dovercourt, though probably no other than Alder, and interred many Ages ago, in a rotten, ovous Mold, were so exceedingly tough, hard, and gosset, that they could but little Impede on them the Strokes of an Axe; we expect to Air and the Water, foot became so rotten, as to be crumbled between the Fingers.

Such Wood is called Subterraneous, or something exceedingly fine, and delicate; such as the Animal Spirits, etc., the Effluvia of odorous Bodies, etc. are supposed to be. See EFFLUVA.

One kind of Matter is only fusible than another, in that they are not melted into the Air, and froths, too, more or less agitated; on the one hand, it makes less Refractivity to other Bodies; and on the other, it infestes itself more easily into their Parts.

The Careful suppose a fusible Matter for their first Element. See CARBONIZATION and ELEMENT.

The fusible Materia are, in great Quantity, the Nature Pores of Glafs and other Solid Bodies; and from this they account for most of the Phenomena of Nature. See VACUUM, PLASMA, SUCTION, etc.

Yet they don't pretend to prove the Existence of this Matter, otherwise than by Consequence. See MATERIAL SUBSTANCES.

**SUBTENSE, Matter. See Matter.**

**SUBTITULATION, the Act of substituting, or rendering another for another.**

The difference of changing a mixt Body into a pure Liquor, or a fine Powder.

**SUBTRIPOLE Ratio, is when one Number or Quantity is contained in another three times; thus 2 is said to be Sub-tripole of 6, as 6 is Triple of 2. See RATIO.**

**SUBURBICARY, an Parish given to those Provinces of Rome, the territory of the ancient Diceste or Patriarchate of Rome. See Province.**

The Term is form'd from the Latin, sub, under, and urbi, City. They were also sometimes called Urban Provinces.

Authoritie usually reckon Ten of these Suburbicarian Provinces; whereof only, from the 6th to the 7th, and 6th of 2nd, and 7th of 3rd, the City of Rome; and of these, the first, the 6th, the 7th, and 8th, are called by the Roman, Diceste, or Patriarchate of Rome; others, as Patriarch of the West, etc.

**SUBCENANOMAE, in Pharmacy, a Remedy subdued or resubmitted, which the Ingredient is more, and the Subject more powerful, than the former Instance; as the Composition of the Composition is stronger than the Composition.

**SUBSTITUTE, a Person, thing, or quality, that performes the Office of another, when the Subject is wanting, necessary for the Composition of that other. See SUBSTITUTE.**

**Substitutes and Substituents, are of equal Import, unities, with some Authors, we call them Substitutes, where a Simple of like Virtue is put for another; and Substituents, where a Compound is used with the same Intention.

The Word is form'd from the Latin, Sustituo, to succeed, to take the place of; to supply, etc. See SUBSTITUTE.**

**SUBCENURIA,T in Anatomy. See REINS SUBCENNURIA,T.**

**SUBCEUTURATION, the Act of Substituting. See SUBSTITUTE.**

**SUBCEUTURATUS, in Anatomy, a Muscle, call'd also Pyramidalis. See PYRAMIDALIS.**

**SUBCEUTURATUS, an Idea we get, by reflecting on that Train of Ideas constantly following one another in our Minds when awake. See IDEA and MODE.**

**SUBCEUTURATUS, the Distance between any Points of this Substazitute, is what we must know when we make use of it. But we have no Perception of Time or Duration thereon; but the Moment we fall asleep, and then wherein we awake, appear connected. See DURATION.**

**SUBCEUTURATUS, that I have the Idea of Success from our Observation of Motion by our Sense, will come into Mr. Locke's Sentiment, above, when they consider that Motion must have a Cause, and be not of the same nature as the Object by producing a continued Train of disagreeable Ideas.**

**A Man that looks on a Body moving, perceives no Motion, unless that Motion produce a conftant Train of disagreeable Ideas.**
They sometimes put forth near the Body of the Mother-plant; but other Suckers at more Distance are bent yea by the former removed when there is leaft Sap in the Top, and pre-
paring what Fijorous Roots are upon them, often proper for it. When a Root is well opened, and if they grow from the Body of the Tree, or Great Roots, they must be cut off close to the Stem, and set in font to the South.

It forwards make the springing out of Suckers, to bear the Roots of Trees, and fit them in some Places.

SUCKING-PUMP. See PUMP.

Suck of a Stream, or of drawing up a Fluid, as Air, Water, &c., to the Mouth or Face.

Air is jet’d in by the Muscles of the Throat, and Abdo-
men, differing the Cavities of the Lungs and Abdomen, and is soon after the Breathe therein, is rarified, and ceases to be a Counterbalance to the exterior Air, in which consequence, it is driven in by the Pressure of the Atmospheric through the Mouth and Nostril. See RESPIRATION.

In a Suck, through the same Manner as with the naked Mouth: it being here all one as if the Mouths were extended the Length of the Pipe.

The action of Fuller Liquors is performed after the same Manner, e.g., in fixing the Flocks, but out of Spring of the Liquids, the Laps are applied close to the Surface of the Water, so as to prevent any Puffage of the Air between them, and the Cavities of the Abdomen, &c., being dilated as before, the Pressure of the Surface of the Atmospheric, which does not cut the Circumference of the Mouth, prevailing over that which upon the Water within the same, the Fluid is raised, from the same Principle as the Suck or Water Witch, See PUMP. In sucking a heavy Liquor, as Water, through the same Pipe, the longer the Pipe is the greater Difficulty is found in the Suck; but the Bigness or Diameter of the Pipe, makes no Difference. The Practice of Sucking a Fluid from the great Principle in Hydrostaticks, that Fluids press according to their perpendicular Altitudes. See FLUID.

First, as the external Air raisesColumns of the Fluid with greater Speed the higher the Altitude is: a Column of Water is let, not only its Thickeness is fo; if two such Columns be conceived, the one twice as high as the other, and that other twice as thick, though the very same Quantity of Water is to be suck’d through, and the other twelve times to raise it be exactly the same, in both Cases; yet there will be required a greater Dilution of the Blood, and a greater Strength of the Muscles, to raise and suck the former than the latter.

From what we have said, it evidently enough appears, that what we call Sucking, is not performed by any active Faculty in the Tongue, but is performed by the mere Im-
fluence and Prejudice of the Atmospheric. See AIR.

SUCOLA or SUCULLA, is a Term in Mechanicks, for a bare Axis or Cylinder, with Staves in it, to move a round; but generally for describing the Introductions to a Suck.

SUDAMINA, little Pimples in the Skin, like Millet Grains, frequent in Youth, especially those of a hot Tempera-
ment, much Excessive.

SUDATORY, a Necessity from the ancient Romans, to their Sweating-Houses; sometimes also called Lecceonia.

The Statuary was a Species of their Hypocras. See SUGAR.

SUDOR, in Medicine, See SWEAT.

Syrup Alumineus, or the English Sweat, is an Epidemic Difeafe, first received in England, in 1455.

"There, properly, a fort of Pulp, thus called, because attended with an extraordinary Kind of Sweat. It made its Return Four Times in the Space of 60 Years, e.g., in 1506, 1517, 1528 and 1531. The Patient was begun with a Sweat, which never ended, but either with the Death of the Patient, or his Recovery. If he survived 24 Hours, he was safe. Few People escaped it at first; though old Men, Women, and too little, were found equally de-
structive.

The Patient was to wait, without stirring, either in his Bed, or in his Cloaths, according to the Condition Nature of the Sweat. So, when the Patient was being hiscribed with Re-
medies or with Foods; it seemed the cluing other too much or too little; and, if possible, without either eating or drinking. The Sweat to be kept up, without either promoting, or any restraining, as an ordinary Cup of Tea, by the Lady. See Incubation.

This was what was found by Experience, and which was at length practis’d, with happy Succes. The Diseafe was first felt on the 24th of September, and in the same Day, when the Climate was very hot, after the Annunciation, it topp’d all at once, towards the End of October.

In Revelations were to great, that in some Places, it took off a Third Part of the People, in a very little Time. The Disease was first seen in Germany, in 1456, was as gen-
eral, and as dangerous as before, and again disapparell all at once.

As the third Strick, in 1528, was less fatal; informeth us of this Strick, Bishop of Regensburg, the Ambassador in [ 0 0 ]

England,
England, who Swave like the reed, tells us, that forty
thousand Souls, fell with it in London, only Two thousand
washed off, in 1534, it paid over into Ireland, where it till
Great Numbers.
SUDORIFJCS, in Medicine, a Remedy that causes, or
promotes Sweat. See SWeAT.
The SWEAT is formed in the sweat ducts or canals,
Diaphoresics, in the Degree of their Action; the one promoting persific Febris, the other inflammatory. See DIAPHORSITICS.
To the Clas of SUDORIFJCS, belong, 1st, all Things that
make vapoors or fumes, by themselves or Body, attenuate the Humours, and accelerate their Motion.
2d Such Things as at the same Time diminish the Re-
Sudorifice in the Sudoriferous Vessels about the Body, and
caus the surfaces of the Skin, to be as much, or as fast as the Ced, as absorb the Aceicdities of the Blood, and thus set at liberty the Master of the Sweat.
The Sudorific Intention is chiefly effected, by a copious drinking of very cool Waters, by Acids drawn from Vegetables by Fer-
mentation and Diffusion; or those of Fruits, attenuated by repeated Fermentation; especially if they be drunk mixed with hot Water; by Acids both volatile and fixed, divided with hot Water; by all compound Acids, dissolved in Water; by Sap, metallic Crysallus, or the attenuated Parts of Metals themselves, as Sulphuretum Fumingum, &c & Sulphur of
Tar, as a Banesco Oil, Diaphoretic Mercury, Diaphorific Gold, &c, by sharp, acrid, acrimonious Aromaticks, as Mysorrhiza, Acromatia, Opii, Affagus, Jujub, Ambro-
sis, Rapsodiana, Gum Annonaria, Canis Benedictum, Canis
Humanus, Levendula, Lycopus, Strophio, Citana, Distania, Euphorbius, Gentiana, Hylaph, Lamell, Mint, Leek, Rosmarina, Sage, Sain, Saffron, Scoronia, Thymus, Pe-
rennifolius, Angelica, Adonis, &c, which, by their strength, hereof, as Triade, Melirodes, Diaphoreticum, Oresatis, &c.
The second is chiefly effected, by cleansing the Skin, by Aperient Baths, Barks, and Frictions; by relaxing the Congelation of the Vessels, with cool, Aperient Waters, and hot Water spiricated all over the Body, the Head excepted, by increasing the exterior Heat about the Nacked Body, as the Warmth of a Bed, a Vapour-bath, &c.
L. The Sudorifics: as oils, as the Colour, Sod, Ced, Eys, By
Diaphoretic Animusy, Besoar, &c. See each under its proper Article.
SHEET, a kind of Fit, found in Sheep, Oenon, Hogs, &c.
which sets them down and clarified, makes what we call Tallow, used in the making of Candles. See FAT and TALLOW.
Anomalies, &c. differing four Kinds of Fit in the Body of Some Animals. The fourth, which does follow, after
mealing, cools into a very firm Confinement, they call Sweat.
'Tis found in greatest Abundance in the lower Belly, and
about the Kidneys. The Word is formed from the Latin, Sinus.
F. I Compte mentions a Tree in China, that bears Sweat or
Tallow. 'Tis much about the Height of our Cherry Tree: Its
Fruit is covered with a Bhanced Layer, divided into Segments of a single nut. When the fruit is cut open, when it is open in the middle like a Chesnut, and three White Grains, of the Size of our Small-nuts. The Fifth, or Pulp of the Grains, which include a little S departure, is that which gives us our Sweat. We find in this, Confidence, &c. and accordingly they make Candles of it; after first meating it down with a little Oil of Olives, to make the Puke the better and more manageable.
G. Thegracw is the Sufficiency of the Body. Sufficient Grace, is a Help or Assistance God gives to Man, to enable him to act and perform his Duty. See Grace.
'Tis allowed an Article of Faith, that Grace is necessary, and that without Grace, nothing that is Good, or that can any way intile to Heaven, can be done: 'Tis allow'd too, that God does not relieve the necessary Affiliences; and 'tis allow'd, that Man, frequently, either does not act, when he should, or acts what he should not.
From these Principles, which are generally admitted by all Sects, however different in other respects, it follows, that they have a Sufficient Grace, a sufficiency, a Do, where with Man does not act, wherewith he yet might act; or some, whereby he does Ev, by which he might do well. 'Tis this Assurance that is call'd Sufficient Grace; because God gives it us, to act without a Dole, and to enjoy all Blessings from its Root, and beginning to be branched from the very bottom of the Stake; such as Lavender, Rue, Sage, &c. See GRACE.
SUFFICIENCY, in Medicine, a Term applied to all Remedies that are received into the Body in form of Fumes, i.e. of Smok or Perfumes. See SMOK.
Sufficencies are of different Names, according to the Nature of the Disea.
Sufficencies are intended to soften sharp, corrosive Humours, to provoke or check the Course of the Mucus, to soothe a Sensitive or Scalded Eye.
The Word is from the Latin, Sat, under, and am,
Smok, Smok.
SUGAR

[SUGAR]

SUGAR, in Medicine, an overflowing of some Humour, swelling of the Skin; particularly that of the Blood or Bile. See BUSHING.

That Redness ordinarily arising from Shame, is only a superficial Appearance, answering to a change of the Humours.

The Jaundice is a Suffering of Bile over the whole Body. See JANVENCES.

SUBLIMATION is used for a little Film or Pellicle, formed in the Inner Surface of the Canes, growing in green Penny in the Isle of Tyneside; particularly in Abder, Bright and the Caribbean Islands.

'Tis a Question not yet decided among the Botanists, &c. whether the Canes were received with this Canes, and whether they knew how to prepare it. This is a very curious Question.

What we can gather from the Opinion and Arguments of the one Party and the other is, That if they knew the Canes and the Juice, they did not know the Art of Combining; Hardening and Whitening it, and, of course, knew nothing of our Sugar.

Some ancient Authors seem to mention Sugar, under the Name of Indus Salis; but they add, that it is made out of the Canes of Inland, and that heartless like a Grain; and was even fisible between the Teeth, like our common Salt; whereas, ours is express'd by a Machine on purpose, and evaporated by the Sun.

Their, Salinasius tells us, was refreshing and soothing, whereas ours is hot, and excites Thirst. Hence, some have impugned the ancient use of the Modern Sugar-Plant were different; But Marchant, in De Mercatoribus, C. 75. makes no doubt they were the same; and others are even of Opinion, that ours has a laxative Virtue, as well as that of the Ancients.

The Generality of Authors, however, agree, that the ancient Sugar was much better than the Modern; as consisting of only the Starch and mucilaginous Part, which made them elfer, and were congealed in the Cold.

The Interpreters of Aesopus and Scurfus, call Sugar, Spectum; the Persians, Tabatis, and the Indians, Maniabonet.

Salinasius affirms us, that the Arabs have had the Art of making Sugar, such as we now have it, above 800 Years. Others produce the following Veris of P. Tarentianum Paro Mammatus, to prove that it was known before Isaius Christi.

India non magnae nmitis Abeore crenat arundis.\[Indica exum pretium rubelicum lumen.\]

Dulcir cum sequentia foenis conterture melis.\[Dulce cum sequenti foenis contorture melis.\]

Another Question among Naturessists is, Whether the Sugar Canes are originally of the West Indies; or whether they are only transplanted, and cultivated in the West Indies.

The Learned of these Ages, have been much divided on the Point; But since the Difference of I. Llavor, a Dominical Land, has been published, it is not so easy to room to doubt, but that the Sugar-Cane is as natural to America as India, all that can be said in favour of the latter, is, That the Spaniards and Portuguese learnt from the Caribs the Art of expressing its Juice, boiling it, and reducing it into Sugar.

Culture of the Sugar-Cane.

The Reed or Raph, whence this useful Juice is drawn, resembles those others we see in Monstres, and on the Edges of Lakes; excepting that the Skin of these latter is hard and dry, and their Pulp void of Juice; whereas the Skin of the Sugared Reed is soft, and the spongy Matter or Pith it contains, very juicy, though that in a greater or less Degree, according to the Ware it is kept in. According to the Sun, Season 's cut in, and its Age, which four Circumstances contribute equally to its Goodness and Its Belk.

The Sugar-Cane usually grows five or six Foot high, and abundant leaves; and it is in the Disease of a Label mention some extraordinary ones in the Isle of Tynage, Twenty-four Foot high. The Stem or Stalk is divided by Knobs, a Foot and Half apart. At the Top it puts forth a Number of Leaves; and at the same time, the Sugar is whirled, as it was the Flower and the Seed. There are likewise Leaves springing out from each Knob; but these usually fall as the Cane rises; and 'tis a Sign, either that the Cane is cut, or that 'tis a good time of Trees, when the Knores are seen better with Leaves.

The Ground fit for Sugar-Canes, is that which is light, soft and sappy; lying on a Delven, proper to carry off the Water, and not subject to the Water, the Juice is better. In Pieces, cut a Foot and Half below from the Top of the Flower. Thrice are ordinarily ripe in Ten Months, though sometimes not till Fifteen; at which Time, they are found quite full of Juice. The Sugar is red, clear, and small, when express'd it is the Liquor whereof Sugar is made. When ripe, they are cut, their Juice is drawn, and the Sugar is prepared. The Mills are about the Mills. The Mills consist of Three wooden Rollers, covered with Steel Plates; and have their Motion either from the Wind, Cattle, or even the Hands of Slaves. See SUGAR MILL.

Two Rules belonging hereunto are, That no Cane above four Foot, or under two Foot and a Half long, be sent to the Mills; and, That no more Canes be cut than can be conveniently profit'd in 24 Hours; in regard they will wilt, ferment and grow four.

The Juice coming out of the Canes, when precipitated and boiled, rises to a Milk; this Milk is heated in the Sugar-House; which is near the Mill, where it falls into a Vellon, whence it is conveyed into the first Copper or Cauldron, to receive its first Preparation, only heated by a Dish of Fire in the second; from thence to a third, it is reduced to a Quantity of Abies or beaten Lime; the Effect of which Mixture, affixed by the Action of the Fire, is, that the unascinic Parts are separated from the rest, and refluxed to the Top, in a form of a thick Scum, which is kept continually fuming off; and furnish to the Food, the Poultry, &c. withal.

Preparation of Sugar.

The Juice, in the next Place, is purified in a second Copper; where a brisker Fire makes it boil, and all the Time the cutting up the Milk is done. The Milk is thus heated in a strong Yre, composed of Lime-water and other Ingredients.

This done, 'tis purified and drain'd in a third Boiler, whereas it is cal'd a kind of Lye, that affixes in purging it; collects together its Impurities, and makes it rise to the Surface; whence they are taken with a Skimmer.

From the Third, 'tis removed to a Fourth Boiler, where it is further purified by a more violent Fire; and hence to a Fifth; where it takes the Consistence of a Syrup.

In a Sixth Boiler, the Syrop receives in full Colour; and here all the Impurities left from the former Lye, are taken away by a new Lye, and a Water of Lime and Alum call'd into it. In this last Cauldron, three in force found one Third of what was in the First, the rest being wait'd in Scums.

Thus purified, fashed, a number of Coppens, the Sugar-Juice is pulvilized, thickeni'd, and render'd fit to be converted into Sugar. In the Kitchen, the Sugar-water mention'd, The Size of the several Coppers always diminisheth, from the first to the last; each being furnished with a Furnace, to give a Heat proportional to the Degree of Colour the Juice has received. In some large Sugar-Works, there are also parcell Coppers, for the boiling and preparing the Scums.

The Generalkinds of Sugar made in the Caribbean Islands.

Pyrauline Sugar, or Molses Sugar; Straw'd or Brown Sugar; Earth'd or White Sugar in Pieces; Refrained Sugar, either in Powder or Loaves.

Crude Sugar, or Molassone, is that first drawn from the Juice of the Canes, and whereof all the rest are compos'd.

The Method of making it, is that already described as for Sugar in the General.

We need only add, That when taken out of the first Copper, 'tis put in a Cooler, where thickening is briskly together, 'tis let stand to settle, till a Cruft, of the Thickness of a Cໂs, and then taken from the Cruft, and the Sugar water, that they furnish the Sugar through Blankets, as it comes out of the first Copper.

The Invention of Straw'd Sugar is owing to the English, who are more careful than their Neighbours, and that is the Reason why they are not so quick, When they boil, put it in square wooden Forms, of a pyramidal Figure; and when it has purified it'self well, they cut it in Pieces, dry it in a Bark, and barrel it up.

Earth'd Sugar is that which is whitish by means of Earth laid on the Top of the Forms, 'tis put in, to purge it'self.

The making of this Sugar, is began after the same manner as that of raw Sugar; except that they only use the Juice Canes in it;
that they work with more Care and Nicety; that when the Liquor is in the first Copper, the Ashes they put in, are little or nothing mix’d with Lime, for fear of reddening it; and that they then throw it into a Blanket, from the first to the second Time.

When it has paid all the Six Coppers, 'tis laid out into a Cooler; whence 'tis put into conical Moulds or Forms, the Tops of which are perforated, but now stand’d with Lime or cinder, so as to let all the Air that can be, come between every Layer of the Grains.

When it has been a Quarter of an Hour in the Forms, 'tis cut with a Sugar-Knife, that is, 'tis filleted briskly this way and that, for Half an Hour.

The Sugar, when they have cut the Form properly, forms the Grains, and the diffusing it equally throughout; but also to determine the unious Parts of the Sugar to mean to the Top that they may be found off.

Thus, in about half an Hour, the Sugar is well padded; in the Form having stood 14 Hours in this State, the Holes at the bottom are then unlopp’d, to give a Passage to the Sugar, and to determine it to take that Way. When enough of those Forms are filled, another Copper is filled, and the Sugar which is not in the Forms is filled into those Forms, and the processes of the Sugar in the Form, to examine the Quality thereof, and to see, if it quit the Form easily; that it may either have the Earth given it, as the Sugar is, judged proper; or be metted over again, if it don’t prove well.

This done, the Forms are planted, each on its Pot, with the Tops of the Cone downward: the Top is then taken off, and in this State, they put in arsugar in Grains, to within an inch of the Edge, which Space is left for the Earth prepared for it.

The Sugar in the Grains, is left to stand 24 Hours; and at length, applied, in Copper and Boil. By this Time the Earth is on the Sugar, all the Windows of the Refining Room are shut, that the Air and Heat may not dry the Sugar. When it is quite dry, which usually happens in nine or ten Days Time, it’s taken off, and after cleaning the Surface of the Sugar with Brushes, and taking it up an Inch deep, and again laying it Level as before; they give it a Coat of Earth again.

The Whiteneck of the Sugar of each Form, is seen from the first Earth: Experience shewing, that a Second or Third Earth don’t make the Sugar any thing white, but only vitriol, or the Loaf. When the Second Earth is taken off, they clean the Surface of the Sugar with a Brutf, and with a Kniff, lop off the Edge of the Sugar, where it sticks to the Form, that neither the Earth nor the Sugar-Loaf be damaged in taking out the latter. The Windows are now open’d, and the Forms left to stand Eight or Ten Days to dry. While the Sugar is draining in its Forms, a Stone is prepared to receive it.

The Stone being sufficiently heated, by Means of the Furnace therein, Loaves are taken out of the Forms one after another, and such as are white from one End to the other, are taken off the Stone, and the rest, after cutting off what is not white, to be farther refined.

When the Loaves are all range’d in the Stone, a moderate Fire is kindled to them, which, during the Time of the visit even Part of the Stone very carefully, to see that every Thing is in good Order, and to repair any Thing that may go amiss.

After these Two Days, they fill the Trap-Door a-top of the Building, and increase the Fire. Eight or ten Days and Nights continued violent Fire usually suffices to dry a Stone of Sugar.

When they judge it sufficiently done, they open the Trap-Door, and cloue a hot dry Day to pound the Sugar, which is perform’d with huge, hard, heavy Wooden Pellers, and when pound’d, 'tis put up in Barrels, and well trodden down as it is put in the Stone, to hold the Sugar.

Sugar of the Scum. This is all made of the Scums of the two last Coppers; tho’se of the former being retur’d for the making of Rum.

Rum is the first Portion of the Sugar, is kept in a Vessell for that Purpose, and boil’d every Morning in a Copper for about that Time. With the Scum, is put into the Copper a few pounds of Sugar, and the Boiling continued for its purging; When it begins to boil, the usual Lye is put in, and 'tis carefully found; When almost enough boil’d, Lime and Allom-Water are thrown in, and when its purged is to be taken out, they stirr it with a little powdered Allom.

Sugar of Syrup. There are three Kinds of Syrops that run from Sugar. There are the Fresh, the Raw, and the Moulds after they are perforated, and c’re they receive their Earth: The third, that coming from the Forms after they have had their Earth out, which last is the best.

The coarse Syrops should only be used for Rum, but Sugar being grown dear, Endeavours have been made to make some hereof, and that with tolerable Success. They are first clarified, with Lime-Water, and, when boil’d, are put up in Barrels, which, when the Syrops are not fresh, are put in Moulds after their purity themselves. After twenty Days, A Quantity of this Earth is thrown in, to make 'em call the Remainder of their Syrops to be retur’d into raw Sugar. The Dutch and German Reckoners have taught the Hinders how to turn their Syrop into crude Sugar.

The second Syrop is wrought somewhat differently: After the Syrops are boil’d; when it is in half full, eight or ten Quarts of Lime-Water are put in, then boil’d again with a little Fire, and carefully found; some Add a Lye, and others none. F. Latat takes the former Method to be the better, and that was the Method the Authors of Attention. This Sugar may be Earth’d alone, or, at least, a little of the Earth of Loaves, the dryd Tops, and each other Kinds of Syrops as may not be mix’d with the proper earth’d Sugar, nor yet with the Earth.

For the third Syrop, after boiling and scumming it as the former, they put it instantly into Coolers, the Bottoms whereof are cover’d half an Inch thick with white Sugar, very well powdered; in about half an Hour, it becomes incorporeal the two together. This done, they throw the Surface over with the fame pounded Sugar, to the Thickness of one Fifth of an Inch; this afflictig the Sugar in forming its Coarse, and thereby makes it more dense and attention. A Hole is made in the Cruise five or six Inches Diameter.

By this Aperture, they fill the Cooler with a New Syrop, pour’d gently in, which insensibly raise the upper current, which by its weight is drawn in, and the Coarse Sugar is break all the Crafts; and after mixing them well, put it up in Forms or Moulds.

Sugar of Syrup, from the same manner as in the earth’d Sugar, from which it only differs in that it falls through its Luttre and Brilliant; being, in reality, somewhat whiter and finer, than of a flatter and duller white.

Sugar, Bran’d Sugar, and the Heads or Tops of Loaves that have not whitened well, are the Matter of this Sugar.

In a Refinery are usually two Coppors, the one ferring to clarify the Sugar, the other for the Coarse Sugar. Sugar that sometimes clarify in both, and boil afterwards. For the Operation of Refining, the fame Weight of Lime-Water and Sugar, are put in the Copper; and as the Scum is raised by the Heat, 'tis taken off, and when it coals to rise any more, the Sugar is strain’d through a Cloth.

After this, 'tis clarify’d; that is, a Dozen of Eggs is thrown with it, Whisky, Yell, Sheel is well then’d, and incorporated the two together. For the Operation of Refining, the fame Weight of Lime-Water and Sugar, are put in the Copper; and as the Scum is raised by the Heat, 'tis taken off, and when it coals to rise any more, the Sugar is strain’d through a Cloth.

Sugar of Syrup, from the same manner as in the earth’d Sugar, from which it only differs in that it falls through its Luttre and Brilliant; being, in reality, somewhat whiter and finer, than of a flatter and duller white.

Syrup. The Matter of this Sugar ought to be the finest refined Sugar to be form’d. They fill, with a weak Chalk-Water, and sometimes, to make it whiter, and prevent the Lime from reddening it, use Alum-Water.

They certify three Times, and pass as often thro’ a close Cloth, suffing the very best Earth. When prepared with these Precautions, 'tis whiter than Snow, and so transparent, that the Finger touching it, even thro’ the thickest Part of the Loaf.

Sugar-Candy. This is better made of earth’d Sugar, than refined Sugar, in regard the former is sweeter.

The Sugar to be used herefor is first boil’d in a weak Lime-Water, then clarify’d, form’d, strain’d through a Cloth, and boil’d, and put in Forms or Moulds that are strung, and boiled, to retain the Sugar as it Crystalizes. Their Forms are frequently changed, for hot Stones are under their Lye, to receive the Syrop that drops out at the Hole in the Bottom, which is half stopped, that the Filtration may be the easier. When the Forms are full, the Stone is turn’d up, and the Fire made very vehement.

Upon this the Sugar fails to the Sticks thatcrees the Forms, and there hangs in little Splinters of Crystal. When the Sugar is boiling, it may be taken out, cutted. Red Sugar-Candy they make, by calling into the Vessell, where the Sugar is boiling, a little Juice of the Indian Fig; and if 'tis deaf’t to have it perfumed, they
 they call a Drop of some Effusiveness, in which the Suger is put
ning into the Fumes. As the Manner of making Sugar-Candy is that of F. Lister,
prescribed in the Caravass : The Method in Europe, described by Finscher, is somewhat different.

If you wish to know how they make white refined Sugar, boil’d with Water into a thick Syrop, in a large Pan. Take a Candle in a Stove, whither ‘tis carry’d, inclin’d in brass Pots, cool’d with little Rools, about which the Crystals fall, and the Syrop thickens and hardens.

The Fire of the Stove is kept equal for fifteen Days; after which, the Sugar is taken out of the Pots to be dry’d. Red or Brown Sugar Candy is made like the white, except that they are not boiled brown, but made and earthen Pots. Barley Sugar, is a Sugar boil’d till it be brittle, and then call’d on a Stone anointed with Oil of sweet Almonds, and form’d into twiddled Sticks, about the Length of the Hand, and the Thickness of a Thimble. 

It should be boil’d up with a Decoction of Barley, whence it takes its Name; but in Italy thereof, they now generally added, to prevent the Sugar the finer. To give it the brighter Amber Colour, they sometimes call Saffron into it. This found very good for the Cure of Colds and Rheums.

White of Eggs, is white Sugar clarify’d, and boil’d into a Confusco, in Rose-Water; when boil’d, it form into Lozenges, sometimes into little Hail, of the Size of Pear, by keeping it stirring till it be cold and dry. This is used good to Eatin and Alact, Alimentaries, &c. of the Breast.

SUGGESTION. — See SUGAR.
Sugar of Lead. — See SULPHUR.

SUGGESTION, the Art of furnishing one with a Theme, or Design, or of convincing it arringly into his Mind.
In the Civil Law a Testament is said to be made by Suggestion, when its made by Surprise, and contrary to the Intention of the Testamentor.
If Suggestion be proved, the Testament becomes null. Articles and Legacies of Suggestion are not admissible against a Testament wrote with the Testamentor’s own Hand, which is never called into Question. 

SUIT, or SUTE. Suit, in Law, (from the French Suit, a following one another) is used in divers Sense.
An Act which is made for one Particular is called a Real and Personal Act. The Name with which we call Real and Personal Acts. 

Secondly, Suit of Court, or Suit of Service; an Attendance which the Tenant owes the Court of his Lord. See SERVICE.

Thirdly, Suit Covenant; when your Ancestor hath covenanted with mine to live to his Court. 

Fourthly, Suit Composition; when I and my Ancestors owe Suit time out of my Court.

Fifthly, Suit Real; or Real estate; when Men come to the Sheriff’s Turn or Lese.

Sixthly, Suit signifies the following one in Chases, as a Faire Slave.

Lastly, Suit signifies a Petition made to the King, or any Great Person.

SULPHUR, in Natural History, a fat unctuous Mineral Substance, liable and inflammable, by Fire, and not digestible or mitible in Water. See POSSIL.
It is particularly call’d Fife, or Mineral Sulphur, to distinguish it from the Sulphur of Alnus, or of the Philosophers. See METAL.

Sulphur makes a particular Claf of Foflea, divided into Solid and Flist. 

First, Sulphur are, common Sulphur, or Sulphur properly so call’d, Arsenic and Aman.

The Liquid Sulphurs, or Alchymal, or Alchymaum, or Bitumen, or Emetic, or Oletum, &c. See BITUMEN, PASSAFTERUM, PETROLEUM, NAPTHA, &c. Sulphur, properly so call’d, or Bitumen, is of three Kinds, common Sulphur, or Sulphur of Alnus, or Philosophers. Sulphur.

When Venus is thus called, as being such as it is taken out of the Mine; it is a kind of greyish argillious Clay, which easily takes Fire, and, in burning, calls a strong Smell of Sulphur. As a Colour occasions its being sometimes call’d Grey Sulphur.

It is chiefly brought from Sicily; and is but little used, except in some Galenical Compositions, and to Sulphur Wine, to make it keep longer.

The beat is soft, smooth, frangible, and mining of a Mouse Colour, and not too full of Smell.

Secondly, Sulphur, call’d also Sulphur fleshy, is a Kind of hard, earthy Ruminant, of a mining yellow Colour, a strong burning Smell, easily takeing Fire, and disflaving.

It is found in great Quantities in the Neighbourhood of Volcanos o’erburning Mountains, as Vesuvius, Etna, &c. yet is it likewise found in its particular Mines; and we have very large ones in Parts of America, and Switzerland, the body is that of Quatrino and Nicaragua, and the Metel is that of Quatrino and Nicaragua.

‘Tis from this Sulphur, that the Common Sulphur used in Gunpowder, and on divers other Occasions, is drawn, by Melting. The middle mix’t with oil, which, being pour’d into Moulds, and thus form’d into those Cuboids, we find it in.

This Common Sulphur is in either better or worse, according to its Quality it comes from. That of Hamburgh, for long Time had the Vogue; the second Place has been given to that of Venice, and the third to that of Marsfelles; but the Sulphur of England has been in the highest Degree, and that from Marsfelles is now in the first Place.

It is chosen in large thick Cuboids, of a golden yellow Colour, very brittle, and when broken, appears all brilliant as it was before.

Beside the Use of Sulphur in the Composition of Gunpowder, whereof it is one of the three Ingredients, and that which makes it take Fire so readily, (See Gunpowder) it is of some Use in Medicine, and more in Chymistry. It is also used in whitening Silk and Woollen Stuff; to which End, the Vapour thereof is contriv’d to be receiv’d by them.

SEALED.

M. Hamburgh, however, has at length found the Secret of separating the Principles, and of saving them at the same Time. He finds it conçits of an Acid Salt, an Earth, an oil, a Vapour, and inflammable Matter, and subtly a little Metal.

The three first he finds, by a long Series of Operations, and that of the acid Salt, and the Oil, and the Vapour, he finds to be Copper, incalculable. The Acid, he adds, is exactly the same with that of Vitriol; the Oil thick and red, as Blood, appears to be the inflammable Part, and that which is common Sulphur. Sulphur, he says, as the Earth, retains some heterogeneous Matter in the Operation. The Earth is extremely firm, and unalterable by the Strongest Fire.

M. Geoffroy tried the Decomposition of Sulphur on M. Hamburgh’s Principles, and with Success. The pure Acid Salt of Sulphur, being mix’d with an equal Quantity of the oily Matter, and earthy Acid, and a Little Oil of Tarraz, and the Operation conducted according to the Rules of Air, the Mixture was converted into an entire Burning Sulphur.

This done, he attempted the Composition of Sulphur, now simply to show that the two Principles he had been reduc’d into, but by using Matters judg’d of the same Nature. Thus, by substituting Oil of Vitriol for the Acid Salt, and Oil of Tarraz for the inflammable Part, he success’d.

Again, he found that fixed Salts, as they are Acids abord’d in Earth, serve for two Principles at once, and need nothing but an Acids to make them Sulphur : And even into the Acid Salt, M. Geoffroy implant, with equal Success, Charcoal, Fire, coal, and other Solids.

Indeed, Mr. Boyle and Gibernus had before made common Sulphur, and that by Mixtures, such as M. Geoffroy describes; but they were both mistaken as to the Reason thereof, the one concluding, that the Sulphur he thus got, had been contain’d in the fixed Salts, and the other in the Coal; neither of them dream’d, that ‘twas the Mixture of the three Principles that produced the Mixture.

Flowers of Sulphur, are the purest and finest Part of Sulphur, gain’d by evaporating Sulphur, by Sublimation, or burning Sulphur, in the Sun, and gathering it up. The Capitol of the Caucabury, where the Vapour sticks. See FLOWER.

Preparation of, as, indeed, Sulphur in most of its Preparations excellent for the Lung. The best Flower of Sulphur is that of Holland, which is in Cakes, or Pieces, light, soft, friable, and rather white than yellow. If it be in Powder, it must be very fine, of a yellow Colour, that is best, which is quite free from any of the Earth.

Instead of this, we have frequently put upon us a vile Mixture of Sulphur, exalted by Fire, and mix’d with many ugliest Flowers; and sometimes only Sulphur, cull’d effervescence.

By adding fixed Nitre, or Sulphur, the Flowers of Sulphur, we have the white Flowers of Sulphur.

SULPHUR is a common Substance, and Sulphur, distill’d in a sufficient Quantity of Water, with Salt of Tartar: and precipitated by Means of a Spirit of Vinegar, or some other Acid. See MASTICIQ.
Tis called Milk of Sulphur from its Whiteness, and Salts of Sulphur, or of the Lungs, from its excellent Use in Diff.

cates of the Lungs and Breath. See BALSON, &c.

Salts of Sulphur, is a Chymical Preparation, very im-

properly the name of no other than the Sal Poly-

cham, more compounded with Spirit of Sulphur, and reduced to a

in Acids Salt, by evaporating the Humidity thereof. Some

hold it a powerful Febrifuge. See SALT.

Sulphur, or Sulphuric Acid, is a Sulphurous Matter drawn

from Antimony by divers Operations. See ANTINOMY.

That drawn from the Fosses of the Crocus Metallicum, is

by some called, Golds Sulphur.

Sulphur, or Metallic Sulphur, or Sulphur of Metals, called also

Sulphur Fugaces, is used among the Chymists and Alchymists for a

peculiar Matter, which enters the Composition of all

Metals. See METAL.

Metals are disposed to confound of two essential Parts, or

Principles; Mercury as the Bais, or Metallic Matter; and

Sulphur as the Binder or Cement, which fixes the fluid Mer-

cury into a coherent malleable Mass. See METAL and

METALLIC.

Some of the late and best Chymists, particularly Most.

Humbert, will have this Sulphur to be no other than Fire. See FIRE.

GOLD, ELECTROLYSIS, &c.

SULTAN, or SOLDAN, a Title, or Appellation given to the

Turkish Emperor.

It had its Rise under Mustinum, Son of Adbul-Adheem, the

first of the Dynasty of that Name, who in the 30th Year of the

Close of the IV Century of the Era of the Hegira :

When that Prince going to Segnomus to reduce Kufess, the

Governor of that Province, who affected the Sovereignty; Kufess,

was in the same Condition of his coming, and he was

sent out before him, delivered the Keys of his Fortresses, and

oared him his Sultan, that is, his Lord or Commander.

The Title pleased Mustinum so well, that he allowed it

to his Son, and frequently gave it to his Descendants, and to

other Mahometan Princes.

Vasili will have the Word Turkish, and to dignity King

Mustinum, the last Sultan of that Dynasty, placed the

Letter C. to the Close of the IV Century of the Era of the

Hegira : when that Prince going to Segnomus to reduce Kufess, the

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sent out before him, delivered the Keys of his Fortresses, and

oared him his Sultan, that is, his Lord or Commander.

The Title pleased Mustinum so well, that he allowed it

To match in State.

SULTANA, the Wife of a Sultan. The favourite Sul-

tanah is called Highness Sultanah, i.e. private Citizen.

The Sultanah Queen is the Emperor's chief Wife.

The old Sultanah, Mother of the Emperor reigning, is called

the Sultanah Valide Sultanah, is also a Turkish Veed.

She is the Minister of the Great Sign that arises from the

Addition of two or more Magnitudes, Numbers, or

Quantities together. See Addition.

This is sometimes called the Aggregate; and, in Algebra,

it is represented by a figure marked by a letter Z, which stands for

Zuma, or Suma; and sometimes by the Letter S.

Sum of an Equation, is the absolute number being brought together, with the several Signs, the whole becomes equal to O: This 'Des Carces' calls the Sum of the Equation prop'd. See Equation.

SUMAC, a Drug used to die in Green, as also in the

Preperty of Black Morocco, and other Leather. See

MOLOCRO.

It consists of the Leaves and young Branches of a Shrub, or

not unlike the little Service-Tre. The Leaves are longish,

pointed, and hairy: The Flowers grow in Clusters, and are

red, like our Roles. Its Fruit is a Kind of Grape, of a

very agreeable Quality; and its Seed almost oval, and

inlaid with red Spots. See LOGARUM, &c.

The Antnns use them, instead of Salts, to seaco their

Meats wirhial; whence the Latin call the Tree Rubia Offic.

inum, from its Use in the Dreeing of Leather: Tis also

called Fatua, Waran, and Rubia, in several Languages. See

SUMMARY, an Abridgment, containing the Sum and

Substance of a Thing in a few Words.

The Summary placed at the Head of a Book, a Chapter, a

Letter, or a Prospectus, is called Brief-Summary, i.e. private Citizen.

SUMMARY, one of the Seasons of the Year, commen-

sating, in the Northern Regions, on the Day the Sun enters

Cancer and ending when he quits Virgo. See SEASON.
The Sun, in Astronomy, the great Luminary which enlightens the World, and by his Fœdece, constitutes Day. So the Sun.

The Sun is usually reckoned among the Number of PlanetS: but that he ought rather to be numbered among the fixed Stars, will be shown in Place. See Star and Planet.

The Sun is the principal Cause of the terrestrial Phænomena; this is now generally received, and which has even Demonstration on its Side, the Sun is the Centre of the planetary and cometary System; round which all the Planets and Comets, and our Earth revolves. And this is sufficiently demonstrated by their different Distances from the Sun. See this Motion Illustrated and Demonstrated under the Article Planet.

But the Sun, though thus end of that prodigious Motion, wherein the Ancients imagined him to revolve round our Earth; yet is he not a perfectly quiet Body. From the Phænomena of his Maculae or Spots, it evidently appears, that he has a Rotation round his Axis: like that of the Earth whereby the natural Day is measured; only slower. Some of these Spots have made their first Appearance near the Edge or Margin of the Sun, and have been seen some time after, near the Opposite Side; whence, after a space of about 12 Days, they have re-appeared in their first Place, and taken the same Course over again; finishing their entire Circuit in 27 Days time; which is hence deduced to be the Period of the Sun's Rotation. But the opposite Side of the Sun, is from East to West, whence we conclude that of the Sun, to which the other is owing, to be from West to East.

The various Appearances of the Solar Spots, their Cause, &c. see Maculae and Spots.

For the annual Motion of the Sun round the Earth; this easily known by a Phenomenon. That the annual Motion of the Earth, from West to East, is in such a manner, though it be demonstrated that there is no such Thing. A Spectator in the Sun, would see the Earth move from West to East. And the Phenomenon resulting from this annual Motion, in whichsoever of the Bodies he is, will appear the same from either. Let S, for Inclination (Tab. Addenda). And B, for the Orb, which it pulls through from West to East, in the Space of a Year.

Now, a Spectator in S, viewing the Earth at A, will see it as it was from the Centre of the Sphere of the Stars; Y: When arrived at B, the Spectator will see it, as in the Point E; and when in C, as in the Point E, &c. till after its whole Circuit, it will be again as viewed from the Centre, and appear a Sphere of the same size, and as spherical as the Earth, and to pass, successively, from Sign to Sign.

Suppose, now, a Spectator removed from the Sun to the Earth; that he may imagine in C, the Distance of the fixed Stars, we have seen, is very, that of the Sun is but a Point to see, The Spectator. therefore, now finite on the Earth, will see the entire Circuit, &c. as before, but the Only Difference will be, that as before he imagined the Earth in the Heavens, and the Sun in the Centre, he will now suppose the Sun in the Heavens, and the Earth in the Centre.

The Earth, therefore, being in C, the Spectator will see the Sun in Y; and the Spectator being carried along with the Earth, and partaking of his annual Motion, will not perceive either his own Motion, or that of the Earth; but observing the Sun, when the Earth is arrived at D, the Sun will be seen at C. Again, while the Earth proceeds to A, the Sun will seem to have moved through the Signs A, B, &c. And while the Earth describes the Semi-circle CDB, the Sun will appear to have moved in the concave Surface of the Heavens, through the Signs D, E, &c. &c. So that an Inhabitant of the Earth will see the Sun go through the Signs of the Zodiac, as the Spectator in C, seen the surface of the Earth. Space of Time, as a Spectator in the Sun would see the Earth describe the same.

Hence arise that apparent Motion of the Sun, whereby he is seen to pass indefinitly, toward the eastern Stars: In its Disturbances, that if any Star near the Equinoctial rise Any Time with the Sun; after a few Days, the Sun will be got more to the East, by the Earth's Rotation. For the several Phænomena resulting from the Sun's apparent Motion, or the Earth's real Motion, see the Diversity of Day and Night, of Seasons, &c.; See Earth.

Nature, Properties, Figure, &c. of the Sun.

As the Solar Spots are frequently found to be Three Days in Number, it appears than they spend in passing over the Hemisphere visible to us: we easily deduce, that they don't adhere to the Surface of the Sun, but are at some Distance therefrom.

The Sun is seen by the naked Eye, and sometimes with a few of the faintest Stars and V. aries, and as the Sun's Distance from the Earth is 7490 Million of Miles, or about others POGO, others....
SUPERINTEGRATION is one institution upon another; as if A be admitted and intituled to a benefice upon one title, and B admitted, intituled, &c. by the presentation of another.

SUPERINTENDANT, in the French Colonies, an Officer of the first rank, prime Management and Direction of the Finances or Revenues of a Country.

The Term is also used for the first Officer in the Queen's Family, who has the chief Administration of the Household.

The French have the power of making a division of the Buildings, answering to the Surveyor of the Works and the Superintendant of Commerce.

The Cardinal de Richelieu made himself Superintendant of Commerce.

In England it is also an Ecclesiastical Superior in several Reform'd Churches where Episcopacy is not admitted; particularly among the Lutherans in Germany, and the Calvinists in some other Places.

The French Superintendant is, as a body, like the English, little else but a Bishop; only his Power is somewhat more reitained than that of our Bishops.

He is the chief Pastor, and has the direction of all the inferior Pastors within his District or Diocese.

In Germany they had formerly Superintendents General, who were superior to the ordinary Superintendents. Theirs, in reality, were Archbishoprics; but the Dignity is sunk into Dioceses; and, at present, none but the Superintendents of Wittenberg affirms the Quality of Superintendents General.

SUPERIOR, something raised above another, or that has Respect and precedence above another.

Thus an Abbot is called the Superior of an Abbey; and a Prior the Superior of a Convent. See ABBOT, &c.

The Canonists hold, that a perpetual Superiority forms a Thing into a Person and invests him with the same prerogatives and immunities which his Prerogative and immunities which his Person confited him with, yet without the Superiority's being rendered, by that Means, perpetual. The Church of France allows the Superiority of the Pope; not his Infallibility, as the Pope is a Person.

SUPERJUARE: Ancienny, when a Criminal endeavour'd, &c. to exclude himself by his own Oath, or by that of one or more Witnesses; and yet the Crime be notorious, there is no Means to be employed by the Oaths of many more Witnesses; this was called Superjuare.

SUPERLATIVE, in Grammar, an Inflexion of Nouns and Adjectives to augment and heighten their Signification, and to show the Quality of the Thing to be in the highest Degree. See DEGREE.

In English, the Superlative is usually form'd by the Addition of most; so, richest, richest, richest; the Addition of elfest, as Generalissimo; more frequently by the prefixing of each, as Most Honourable, Most Amiable, &c.

The French are generally forc'd to form their Superlatives, by prefixing de plus, some times of res, and some times of fort.

The Italians and Spaniards have great Advantages over the French in this: their Language abounding with magnificent Words to express their Signification, the Adjectives &c. are more powerful, more expressive; in short, they have many Superlatives in their Language.

The English Superlatives are formed by the Particles jiter and most, some times by the Preposition than, and sometimes by re-doing the Words; which is what we frequently find in the Vulgata.

SUPERNUMERARY, something over and above a fixed Number.

In several of the Offices are Supernumerary Clerks, &c. to be ready on extraordinary Occasion, &c.

There are also Supernumerary Surveyors of the Excise, to be ready to supply Vacancies when they fall. They have but half Pay.

In Mafce, the Supernumerary, called la premi'ere Proportion, the lowest of the Chores of their System answering to a, mi, ta, of the lowest Qvwe of the Moderns. See PROPORTIONALMONOMENOS and DIAGRAM.

SUPER-forgiveness, in Medicine, an excessive, over-violent Fever. See Puration.

A Man who had taken Powder of Dianthatosinum inwards, was sent for to Stool an hundred times; and was cured of the Super-forgiveness by a Pound of Canop-Broth, an Ounce of Saw-wort of Rodafum, five Grains of Laudanum, and the Yolk of an Egg.

In lieu of Laudanum, they sometimes use a Draught and a half of Turpentine.

SUPERCAPULARIS inferior, called also Infrafina- tor; a Mufcle that helps to draw the Arm backwards. It covers all the Space that is between the Spine, and the Triceps brachii; and is inserted into the Neck of the Humerus.

SUPERCAPULARIS superior, in Anatomy, a Mufcle called also Suprafina- tor. See SUPRAFVINA- TOR.

SUPERDEAS, is a Wit inflicted in our Cafes, importing, in general, a Command to stay or forbear the doing of that which ought not to be done, but which, in Appearance of Law, ought to be done; were it not for that Cause, where the Wit is granted. Thus, a Man, regularly, is to have two Dogs; and it being discovered whom he will swear is already; and the Justice regards his threat can't do him ight; yet, if the Fryre be formally bound to the Peace, the Fryre shall not have the Beasts; and, if the Peace were to move him, this Superdeas is more voidable than Atheism. The same, however, as directed by the Local Councils for the Superdeas, was to fall a Month in Privity.

SUPERVISOR, signifies a Surveyor, or Overseer.

He is a Militia, and is full amongst home, a Callot, especially of the better Sort, and to supervise the Executors, and see the Will truly performed.

SUPINATION, in Anatomy, the Action of a Supinator Muscles; or the Motion whereby it turns the Hand, so that the Palm is uppermost. See SUPINATOR.

SUPINATORES, in Anatomy, are two Muscles which turn the Hand towards Heaven. See SUPINATOR.

The first arises by a flabby Beginning, three or four Fingers breadth from the exterior, and Externor of the Humerus. It lies all along the Radius, which is the external and external Part it is inserted by a pretty broad Tendon.

The second comes from the external and upper Part of the Ulna, and passing round the Radius, is inserted in its upper and fore Part, below the Tendon of the Biceps: Thus turns the Palm of the Hand upwards.

SUPERLATIUM, in the Latin Grammar, a Part of the Conju- gation of a Verb, of good, of well, with the Infinitive Mood. See VERB, MOOD, &c.

There are two Kinds of Superlatives, the one in um, whose Signification is greatest, and which forms a Motion, as long umum, the other in a, having a passive Signification, as accidit a, &c. The Superlatives have neither Number nor Person.

They have their Name, sua Trinitas, and after him Treas. their Supremacy being their Dominium omnium omnium barbae. Or, according to Ciceron, good, unsup- ior is a participio passivo que sine appellatione quin, quis ille etiam dari solemnitatis superlativus.

SUPPLEMANTALIA, among Paymasters, means the Fills, or apply'd to the Soles of the Feet, generally made of Leaven, Malt, wild Raisins, Salt, Soap, Gunpowder, &c.

SUPREME COURT OF ARMS, in America, among Paymasters, means the Fills, or apply'd to the Soles of the Feet, generally made of Leaven, Malt, wild Raisins, Salt, Soap, Gunpowder, &c.

SUPPLEMENT, in Matters of Literature, an Appendix to a Book, to supply what is wanting therein. See APA- THERY.

Substantivum has wrote diverse Supplements, to restore the Books of several ancient Authors, Part wicent had been lost.

The French also use the Word Substutum for a Kind of Tax, or After-payments charg'd on Lands, Goods, &c. that are pretended to have been fold beneath their Value.

SUPPLICATIV, a Wit sifting out of Charioty, for taking the Peace against a Man. It is directed to have the Jujities of the Person, and it is the Person that is to make and be grounded on the Statue 1 Ed. 3. which appoints, that certain Permons shall be affidger by the Lord Chancellor to take that Person.

The Chief is also said to be subjegated when it is of two Colours, and the upper Colour takes up two Thrids of it: but when it is of two Colours, it issubjegated by the Colour underneath.

SUPPORTED, in Heraldry, a Term apply'd to the uppermost Quarters of a Shield, when divided into several Quarters; these seeming, as if they were, supported or sustaied by the Person in the Quarters. See QART.

The Chief is also said to be supported when it is of two Colours, and the upper Colour takes up two Thrids of it: but when it is of two Colours, it is supported by the Colour underneath.

The French also use the Word Substutum for a Kind of Tax, or After-payments charg'd on Lands, Goods, &c. that are pretended to have been fold beneath their Value.

SUPPLIACIT, a Wit sifting out of Charioty, for taking the Peace against a Man. It is directed to have the Jujities of the Person, and it is the Person that is to make and be grounded on the Statue 1 Ed. 3. which appoints, that certain Permons shall be affidger by the Lord Chancellor to take that Person.

The Chief is also said to be supported when it is of two Colours, and the upper Colour takes up two Thrids of it: but when it is of two Colours, it is supported by the Colour underneath.
The Word is formed from the Latin, sub, under, and, etc., parts.

SUPPRESSIVE, a Medicine that promotes Suppression.

SUPPRESSORS are all hot, by which Means, increasing the Heat of the Part, they receive the Humour into a Palm. See Digestive.

SUPPRESSION, in Botany, a Phenomenon which produces the Contrary effect to that of the Particular Biotic or Physiological Object of the Part.

SUPPRESSIONS, in Medicine, the Consequence of the Preceding Humour is Homo crebris et libatios et accordantia ad eam.

SUPPUTATION. See Computation.

SUPRALAPSE, in Theology, A Person who holds, visit God, without any Respect to the good or evil Works of Man, that is, in a Religious Act, by an external Decree, to have force, and damn others.

Such are also called Antepapae, and are opposed to Subpapae and Infrapapae. See Souspapae.

SUPPONER, in Medicine, to compress, as in a Decree, to cause to be dispelled.

The one, the Conditional Decree preceding the Fore-light of the Man's Objection, or Disobedience to the Grace of God; the other, the Absolute Decree following this Fore-light. See Decree.

The Predeterminers adopt, admit an Absolute Decree prior to the Fore-light of Original Sin, in common with the Supra-papae and Infrapapae; but they distinguish themselves from them, for the following reasons: Supra-papae and Infrapapae insist that in that Absolute Decree the Offerings of sufficient Means of Salvation to the Reprobate; so that, as to the Point of Power, the Proposals of the Offerings, the Inferior Right in the Absolute Decree, as well as the Ordinary Right in the Fore-light, in the General Agreement, and in the Urns, or Corporate, or Municipal, or Personal, or Moral, or Incidental, or Municipal.

SUPPONITANS, in Anatomy, a Mucous thus caused from its Inflammatory Origin, at the upper End of the Bulb of the Nervus of the Scapula, above the Spine, to the upper Part where it is called the Fore-light of the Inferior Right in the Absolute Decree, as well as the Ordinary Right in the Fore-light, in the General Agreement, and in the Urns, or Corporate, or Municipal, or Personal, or Moral, or Incidental, or Municipal.

The Local is called a Decree, because anciently it was found in Fi- gures of the Arm, as in the Arrows. See Cytisus and the Composition is sometimes added the Powder of Scammony, Euphorbium, Colchicum, etc.

On some Occasions it is made mainly of a Cup of Bacon, the Liver, and the Heart, to whom, or the like Matter, thinned, as a Tonic, the Amus, to irritate the Spinner of Milk, and oblige it to extrude the Excrement.

SUPPRESSION, in the Customs, the Extinction or Abolition of the Office, Right, Rent, &c.

From the Latin sub and prom, I profess unto.

Suppression, in Grammar, an Omission of certain Words in a Sentence, rendering it shorter, or more concise, or more natural. "By suppression, there is not an absolute change, unless there be particular Reasons for the contrary."

Suppression, in Medicine, is apply'd to the Humours that are retained in the Body by some Obstruction or Suppression of the Blood, Call it a Suppression of Urine, on the Menstrue, &c. See Urine, Menstrue, &c.

SUPPURATION, in Medicine, the Affection whereby extraneous Bodies, or other Humours, are changed, in the Body, into Scabs, or Pustules. See Post.

The Change is begun by a Diffusion of the most fertile and spiritual Parts of the Blood: What is left behind, takes in its Place the little that is left behind: But the Sulphur disengages itself from the greater Parts where they were embarrass'd. These Parts thus disengaged, and acting on one another, burst, and break each other, and thus every Part is separated from the other, by which the Parts become harder, and sometimes by the Hardness of the Ground, and high lifting his Feet.

The Signs hereof are, his hoisting on both Foot-legs, and lying flabby, and creeping as it half followed. The Healing is better after a Surcorted Foot than Tar melted into the Foot, or Vinegar boil'd with Soot to the Conformation of a Broth, and put into the Foot boiling hot, with Hard over it, and Splints to keep it in.

SUPURGAE, in Anatomy, the Shin-Bone; the same as Fibula. See Femur.

SUBORTING, among Farriers, is when the Sole of a Horse's Foot is worn, bruist'd, or spott'd, by beating the Horse upon hard or sandy Ground, to make it tender. See Supurges, hot, sandy Lands, or with a Shoe that hurts the Sole, lies too flat to it, &c.

Sometimes, it happens by over-serving a Horse, while young, or a Horse that is too fat, and sometimes by the Hardness of the Ground, and high lifting his Feet.

The Signs hereof are, his hoisting on both Foot-legs, and lying flabby, and creeping as it half followed. The Healing is better after a Surcorted Foot than Tar melted into the Foot, or Vinegar boil'd with Soot to the Conformation of a Broth, and put into the Foot boiling hot, with Hard over it, and Splints to keep it in.

SURCHARGE.
To reduce Surs to the lowest terms possible: Divide the Surd by the greatest Square, Cube, Biquadratic, etc., or any other of the Numbers, on which you can divide it, and will make it a Common Divisor, and then prefix the Root of that Power before the Quotient, or Surd, is divided, and this will produce a new Surd of the same kind as the former, but more simple Terms. Thus, \( \sqrt[16]{a \cdot b} \), by dividing by 16 and prefixing the Root 4 to it, will be reduced to this, \( a^{\frac{1}{2}} \cdot b^{\frac{1}{2}} \), and \( \sqrt[15]{a} \) will be 3 \( a^{\frac{1}{3}} \). All \( a \cdot b^{\frac{1}{3}} \) will be brought down to \( \sqrt{a} \cdot b \). This Reduction is of great Use whenever it can be performed: But if no such Square, Cube, Biquadratic, etc., can be found for a Divisor, then you must find all the Di
era of the Surd proposed; and then see whether any of them be a factor of the Surd, or fact is a Power as the Radical Sign denotes; and if any such can be found, let that be used in the same Manner as above, to free the Surd from its Radical Part from the Radical Sign. Thus, if \( \sqrt[288]{b} \) be spotted for a Divisor, the Squares will be found, 9, 16, 36, and 144; and by which, if \( 288 \) be divided, there will be the Quotients 72, 32, 18, 8, and 2, whereby instead of \( \sqrt[288]{b} \) may put \( \sqrt[72]{b}, \sqrt[32]{b}, \sqrt[18]{b}, \sqrt[8]{b}, \text{or } \sqrt[2]{b} \). And the same may be done in Species. But for the finding of all the Sides, see Kepler's Algebra, and others on the same Subject.

SURETY of the Peace, (so called, because the Party that was in fear, is thereby freed) is the acknowledging a Bond by a competent Judge of Record, for the keeping the Peace. See Peace.

This Peace, a Justice of the Peace may command, either as a Minister, when commanded thereto by higher Authority, or when he doth it of his own Power, de
div'd from his Commission.

Surety of the good bearing, differs from this; that whereas the Peace is not broken without an Affray, or such like; the Surety doth bear guilt may be broken by the Name of a Man's Company, or by his or their Weapon, or Harriot, SURFACE, in Geometry. See Superficies.

Surety of the Good Bearing, an Indulgishment caused by Excess in Eating or Drinking, that is say, by abusing the Powers of the Body. It is usually attended with Eruptions, and sometimes with a Fever. See Plentitude.

Surgeon, a Water distill'd from Poppy's, and other Herbs, proper to cure Indiginations.

Surgeon, The Navel or the Name of the Person to whom the Perforn of such a Family. See Name. Thus the Romanus fist introduced the Ufe of Hereditary Names; and that on Occasions of their League with the Salamines; for the Conformation wherein, it was agreed, that the Romanus should prefix Salim, Names, and the Victims, Roman Names, to their own.

These New Names became Family Names, or Surnames, and the old Ones continued personal Names. The former they call Coquimbo, and the latter Prussianism. See Prussian, and Coquimbo.

When they come to be used by the French and English, they were called Surnames or Surnames, not because they had the Names of the Sire or Father; but, according to Camboldt, because they are super-added to the personal Name; or, rather, with Du Lizot, because at first, this Family-name was written over (Sur) the other Name thus: duc de Lousin.

In lieu of Surname, the Hebrews, to keep up the Memory of the Name of their Father with the Addition of Ben, Son as Melchis Eleum, Eliul, Beno Efias, Ec, to the Greek, Ιουβελτος, Ιουβελλος, Ιουβελλος, to express the Son of Dedalos, Declains the Son of Eupham. Ec.

So, also, the ancient Britons, Eueris, Cornedill, Cornedill, Coot, Cornwall, that is, Corned Son of Cornwall, Son of Carz, and in the same Sence, the Latins, Βασιλεος Μας, Μας, 35.
SURRENDER, an Infrumument in Writing, tefiting. That the particulur Tenant of Lands and Tenements see Life or Lease, both sufficiently confert and agree. Thus, he shall, in writing or inform the Tenant of this, declaring thereby, have the present Estate of the fame in Possession; and that he yields and gives up the fame to him; for every thing that, forthwith, to give Possession of the Things furrendered.

There may also be a Surrender without Writing, whence, a Surrender is divided into that in Deed, and that in Law.

Surrender-in-Law, is that which is really and fecondarily perfoumd.

Surrender-in-Law, is in the Intendment of Law, by way of Confinment, and not Abhia. As if a Man have a Lease of a Tenement, and the Tenant of the Lease accepts of a new Lease, this Act is in Law, a Surrender of the former.

There is also a cultumary Surrender of the Copy-hold, as may be seen in Cole Lib. Legis. Chap. 164.

SURECOM, a Person of any Degree or appointed in the Room of another; most commonly of a Bishop, or Bishop’s Chancellor. See Bishop, SUFFRAGAN, GC.

SÜRESOSID, SÜRESOSID, in Arithmetic, the Fourth Power of a Number, or the Fourth Multiplication of any Number, confidered as a Root. See Power.

The Number 2, for Inftance, confidered as a Root, and multiplied by itself produces Four, which is the Square of second Power of 2; and multiplied by 2, produces 8, the third Power, or the Cube of third Number of 2; 8, again multiplied by 2, produces 16, the fourth Power, or Quadrature of fourth Number of 2; and finally produces 32, the fifth Power, or Sürdos, or Sürdos Number of 2.

SURESOSID, a Problem, is that which cannot be resolved, but by a Sürdos of an higher Kind, than the Comic Solutions. See Problem.

Sure, To defcribe a regular Esdaceon, or Figure of Eleven Sides in a Circle, it is required to defcribe an Icosadecagon in a Circle, as it will be more prudential, if the Number of Sides shall be quintuple to that at the Vertex; which may eafily be done by the Interfition of a Quadratrix, or any other Curve of the Sort, which may be found, but must be referred to this Curve. See Curv.

SURVEYING, the Art or Act of measuring Lands; i.e. of taking the Dimensions of any Tract of Ground, laying down Maps or Plans of Ground, and finding the Content or Area thereof. See Measuring, MAP, GC.

Surveying, call’d also Geodetics, is a very ancient Art; its even held to have been the First, or primitive Part of Geometry, and that which has given name to and laid the Foundation of, all the rest. See Geometry.

Surveying consists of Three Parts or Members; the First, is the taking of the necessary Meafures, and making the necessary Observations on the Ground itself. The Second, is the laying down of these Meafures and Observations on Paper; and the Third, is the finding the Area or Quantity of the Ground, as laid down on Paper.

The First is what we properly call Surveying. The Second we call Plotting or Pracurating, or Mapping: And the Third, Cailing.

The First, again, consists of Two Parts, viz. the making of Observations for the Angles, and the taking of Meafures for the Distances.

The former of these is perfed by one or other of the following Infrumements, viz. the Theodolite, Circumferator, Semi-circle, Plane Table or Compass: The Description and Manner of using each whereof, see under its respective Article, Theodolite, Circumferator, Plane Table or Compass.

The latter is performed, by means either of the Chain or the Perambulation; The Description and Manner of applying either, are to be found under its respective Article, CHAIN, and PERAMBULAM.

The second Branch of Surveying, is performed by means of the Protractor and Plotting Scale; the Ufe, &c. whereof, see under Protractor.

The Third is performed, by reducing the several Divisions, Intofures, &c. into Triangles, Squares, Tripeions, Parallelograms, &c. especially Elliptical; and finding the Area of each whereof by the method of Planes and Points, or by being lived under the Articles AREA, TRIANGLE, SQUARE, &c.

Surveying Craft, is an Instrument little known, and left unmentioned in England; though in France, &c. where the French have a great deal more to do in the Surveying, it consists of a brass Circle, or rather a circular Limb, graduated, and again divided into four equal Parts, by two Right Lines cutting each other at right Angles: At the Ends of these four Extremities of the Lines, and in the Centre are fixed Sights.

The whole is mounted on a Staff.

Surveying Wheel. See PERAMBULAM of Way- marks.

SURVEYOR, one that hath the Over-sight and Care of considerable Works, Lands, &c.
Behind thee, is a fourth Sweet, of the puriali or Quan-

tious Kind, suppos'd, 'tis safely, to have no Inducements: It

is called the Bore, because the Sweet is of the Sort of Borne

by the Rows, or Plants of Sedge, Oat, and is also call'd the Tendurra Sweet. See Suda-

mou.

Thou hast Hilarion tell us, that it is Peri's frequent

to have People with whom at all times, Life whole one solid Bone: yet without any apparent In-

venience: And M. Fischiier, in his Life of Cardinal Xonex,

Says, That Cardinal; yet it should seem that great Diforders Bancarri are found; as is this Inconveniency

could be but very improperly effect'd; whereas heaviest

and Swimming in the Head. See Suda-

mou. The Ancients invented a great Variety of Sweets, which

they reduced to three Kinds; Anacardia, Retickis, and

Assoueretum. The Suda, is thus call'd, because by joining

the Edges of a Wound, and keeping them together by the

Thread run across them with a Needle; they
grow together, and intake the fibers. See Suda-
mou.

Of these Five, two are perfectly dissol'd, viz. the Chappel

and the Suda, and the Suda with Chappel, as being too barbarous, and

at the same Time unnecessary. The First was call'd

Suda with Chappel, the other is of; and fendered, when the Barrels of Feathers or Quills.

To perform it, two or three Needles,threaded with a double

Thread, were pass'd through the Lips of the Wound, at

the Parts from which the Blood then, and means the Part will

put in the Stitch; and another Pin or Feather bound with the

Ends of the same Thread; that the Feathers might keep the

Lips of the Wound close together.

Secondly, if they had large, crooked Chippus, pointed at each End; one of which they thrust into the upper

Part of the Wound, the other into the lower, to bring the

Lips together.

These Suda, are cruel as they were, yet known to be

useful; for in the only Cases where they should serve infall-

ably, viz. in deep Wounds, where the Contraction of the

Lips is not sufficient to hold them together, the Mager

Tendons; they expose the Patient to terrible Convulsions and

Shuddering, which are avoided, by diminishing the Dilata-

tion of the Wounds, by moderate Compressions, and waiting

till the Fiber, and intake the fibers. See Suda-
mou.

Retickis Suda, were those whereby they endeavor-

ed to stop the Flux of Blood from large Wounds, where

any considerable Veins fall.

To this End they invented several Kinds, in the Number

whereof, were the Suda-maker's, Taylor’s, Skinner’s and other

Scars; all more important than either. Tis evident, the

Suda-maker is a Man of such a Character as he is

forging the Wound to exactly fill’d up, that no Blood could

flow through the Lips thereof; yet will it still flow out of the

Veins; and will thus be forced to make in Way within the

body; the Mager Tendons, which the Part will

swell, rot and gangrene. Yet the Skinner’s Suda, Suda

pedillinum, is still preferred for Wounds of the Intestines;

wherein they think the Skinner did the same, as being on the

Holes made by the Suda, they are leaving them the

Retickis Suda, is of that kind ancient Suda,

whereby the Lips of large Wounds, wherein there was a Loa

Substance, were preserved from reeding too far. But a

Bandage, now, suffices.

The Interwitted Suda, is thus call’d, because the

Needles being left sticking in the Wound, the Thread is

wound round them, and the Mager Tendons, and the Suda

do the threaded Needles they keep in their Suda.

This Suda is perform’d two Ways; for either the Needles

are pass’d across the Wound, or they are hack on the Sides the

Federer’s Suda.

All the Suda in hitherto mention’d, are made with Needle

and Thread; Beside which, there is another Kind, call’d

dry Suda, which are perform’d with Glue or Sizes; or other

propriate Matters.

The dry Suda is ordinarily made with small Pieces of

Leather, or Linnen Cloth, indented like a Saw, so that the

Thread can be pass’d through them, in the Manner as the Tailors do the threaded Needles they keep in their Suda. This Suda is perform’d two Ways; for either the Needles are pass’d across the Wound, or they are hack on the Sides the

Federer’s Suda.

The Saddler’s report, being out into the proper Form,

are apply’d on the firm Federer, according to the Length of the

Wound, reaching from it to the Distance of some Inches; and

after they are dry’d, or well hack’d in the Part, the Lips of the

Wound being approv’d, they can conveniently be held together

by the Suda in that Poulace.

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This
The Sweet that secreted, is various, according to the Variety of the Weather, Soil, Sex, Age, Temperament, Emunctories, Diet, Time of Digestion, &c., as in the Universe. 

In a found Body, Sweet is fearce ever found, but from a fault in some of the fixe Non-naturals: it immediate Eft. 

is alwaies hurtful: By Accident it sometimes doth good. 

The Sweeter is great gladness in the Body, in cafes, as the Palsy, Rheumatism, Sciatica, and many other Diseaies. Diseaies frequently have their Grieues in Sweet. 

Sweating is indicated by the Beginning of a critical Sweet, to show the Body is heat; still more perhaps, that Matter dispersed thro' all the Veins, as in the Plague, 

a venemous Bire, the French Diseaie, e't yet fix'd; by the particular Temperature of the Patient, and by various (Q.) 

Sweating is found in the Fever, and in the majority, particularly in facetious facetious Diseaies, the Ich, Piora, Etc., 

Mortals say, Tell us, That the Sweet of all Quadrupeds, as 

Horses, Affes, &c., is venemous; and that of other 

Beasts is unwholsome. Ttechebus adds, that the Sweet of 

Horses, particularly, is so acid, that it pierces the 

Throat almost to the Heart. 

Naturalists affirm, that Dogs and Cats never sweat, how 

ever before they be, because they are not found to have any 

Pores in the Cartilege. See Pora. 

Emunctories. See Emunctory Agents. 

SWEET, among Raffines, the Almond Furnace. See 

FORMACE. 

SWEET : The Swains call the Mold of a Ship, when he 

beaks, that rests on the Rungheds, the Sweet of her, or the 

Sweep of the fartack. 

Sweeting at Sea, signifies dragging along the Ground, at 

the Bottom of the Sea, or Channel, with a Tree-kill's Grap 

per, and some Hawker or Cable, which is flapped from an 

Anchor. 

SWIMMING, the Art or Art of suffocating the Body in 

Water, and of advancing therein by the Motion of the Arm, 

Legs, and Feet. 

Man alone learns to use it; all other Animals have it 

naturally. 

We have abundant evidence against this: throw any 

Brute, newly born, into a River, and it quives: throw as 

Infant in, e't yet capable of Fear, and it quives not, but is 

drown'd. 

We have abundant evidence for this: throw any 

Brute, newly born, into a River, and it quives: throw an 

Infant in, e't yet capable of Fear, and it quives not, but is 

drown'd. 

M. Treenoov has publish'd a curious Piece in French, call'd 

L'Art de Nager, the Art of Swimming, demonstrated by 

Figures. Before him, Guérard Dégoy, an Equangist, 

and the Rest of the French, of this Art 

Treenoov has done little more than copy from them. 

Indeed, had he but read, with that Application, St 

rach's Tractat de Mot Animale, he would scarce have 

maintained, as he has done, that Men would faint naturally, 

like other Animals, were they not prevented by Fear, which 

magnifies their Danger. 

We have abundant evidence against this: throw any 

Brute, newly born, into a River, and it quives: throw an 

Infant in, e't yet capable of Fear, and it quives not, but is 

drown'd. 

M. Treenoov is that the Human Machine differs very 

solubly in its Structure and Connection from that of 

Brutes and particularly, which is very extraordinary, in the 

Situation of its Centre of Gravity. In Man, the Head 

is considerably regard to the Weight of the rest of 

the Body; by reason the Head is furnish'd with a very 

great Quantity of Brain, and has, besides, a deal of Fieith 

and Bone, and no Carreyes to balance with; it is more 

Water by its own Gravity, the Nobe 

and Ears are soon filled: Thuis the Strong carrying down 

the Weak, the Man soon drown'd, and is lost. 

But Buffalos is other wise: the Head having but 

little Brain, and there being abundance of Sinus therein; his 

Weight, with regard to the rest of the Body, is much 

more considerable; so that they are able to keep it 

up out of Danger of drowning, on the Principles of Statics. 

In effect, the Art of Swimming, which is no other thing to 

be acquire'd but by Exercise, consists principally in keeping 

the Feet and Legs motion and Keeping them above the 

Liberty, Respiration may be carry'd on: For, as to the Feet 

and
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and Hands, 'tis enough to flir them, and to use them as Ours to conduct the Veefiel.

SWIMMING Bladder, a Vehicle of Air, incr'd in the Body, to swell it, and to sustain the animal when it is immers'd in a Body of Water, when the Bulk of this Bladder is, greater or lefier, according to the Depth; and yet receives the same absolute Weight. Now the Rule to determine the Bulk of this Bladder, is to be Body heavier than the Water in which it is immers'd in such a Proportion as the Bulk of it, will necessarily fill; a Body that is lighter, will fill more; and the Body of equal Weight, will fill in Part of the Water.

For the Air in that Bladder being more or less compriz'd, according to the Depth the Fifth foams at; takes up more or less Air, till its Weight is equal to the Weight of the Water in which it is immers'd, when the Bulk of this Bladder is greater, or lefier, according to the several Depths; and yet retains the same absolute Weight. Now the Rule to determine the Bulk of this Bladder, is to be Body heavier than the Water in which it is immers'd in such a Proportion as the Bulk of it, will necessarily fill; a Body that is lighter, will fill more; and the Body of equal Weight, will fill in Part of the Water.

The Fifth, if it be deeper in the Water, its Bulk becoming less by the greater Compression of the Bladder; it will still remain commensurate to the Gravity of the Water in that Depth.

If the Fifth be higher than the middle Region, the Air dilating itself, and the Bulk of the Fifth consequienty increasing, but not the Weight; the Fifth will rise upwards, and fill the Top of the Water.

'Tis probable the Fifth, by some Action, can emit Air out of its Bladder, and take freth in; Mr. Ray observes, that in many Fishes, there is a tubular Channel leading from the Cleft to the Bladder, which serves for the Conveyance; and that there is a mucilaginous Pouch, the Cost of the Bladder, whereby the Fish can contract it when it fills. The same Author adds, in Confirmation of this Declaration of Mr. Ray, that they found, in many Fishes, they might be pricked, or broken, the Fifth immediately sinks to the Bottom, and can neither support nor raiseth itself. And that in this Fish, as Scales, Flies, efg., which are always groveling at the Bottom, in a Blasting Bladder at all.

SWINE-Pox. See Pox.

SWOONING, a Kind of Syncope, or Fainting, wherein the Body is immers'd in that State of its Sense, from its Underlying.

Swooning may be occasion'd by anything that ailes, cor-

rups, or dissipates the Vital Spirits; as, long Watching, vi-

olen Pains, great and sudden Evacuations, patrie Vapours arising from the Body, in general, or in Parts of it.

SWORD, an offensive Weapon, worn at the Side, severally either to prick, or cut, or both. See Steling.

Its Parts are the Blade, Groove, Hilt, or Graphe, and the Pro-

tional Scabbard which covers it. The Matter of Divide divide the Sword into the upper, middle, and lower Parts; or the strong, middle, and small or weak Part. Anciently there were kind of two-handed Swords, called Spatha, which were to be worn with both Hands; which in those Days they could brandish fo nimily, so to cover the whole Body therewith.

The Sword of Alexander, when first vis'd by the Samni-

rians, had a kind of Wooden Scabbard, which would do as much Execution as ours. In Spains, Swords are only allow'd of such a Length, determin'd by Authority. The ancient Cretans and Phoenicians, made their Swords of Iron, and in those Days they could brandish fo nimily, so to cover the whole Body therewith.

The Sword is to the Person, what an Ambition is, when once vis'd by the Spaniards, to have a kind of Wooden Scabbard, which would do as much Execution as ours. In Spains, Swords are only allow'd of such a Length, determin'd by Authority. The ancient Cretans and Phoenicians, made their Swords of Iron, and in those Days they could brandish fo nimily, so to cover the whole Body therewith.

SYCOPHANT, a Greek Term, originally us'd at Athens, for Persons who made their Bittinc to inform against those who told Fops, to the Owners; or against those who, con-

trary to the Law, which prohibited the Exportation of Fops, yet practis'd the Thing; and devid'd the Officers, the Instructors of the Public.

At length, the Term became us'd in the general for all In-

formers, Tattle-bears, Paraffets, efg., especially those the Courts of Princes: And, at last, for a Lyer, Imposter, efg., and so it is us'd in the Language of the Day.

SYCOPHANTIC Plants. See Parasites.

SYLABLE, in the Greek Grammar. There are two Sorts of Sylables, the Sylables of the First and First of the Second sort, in which the Word is increased by a Syllable; and the other Temporal, which is when the Sylable becomes long. See Augmentative.

SYLABIC, in Grammar. Part of a Word, confining of one or more Letters pronounc'd together. See Letter.

Or, a Sylable is a complex Sound, u'd in one Breath, confining either of a Vowel alone, or of a Vowel and one or more Consonants. See the Vowel, Con-

sonant, efg.

Syllae defines a Sylable to a littl, or articulate Voice, of an individual Sound. See Voice.

In every Word, therefore, there are as many Syllables as there are vocal Sounds; and as many vocal Sounds, as there are simple or compound Vowels; each whereof requires a distinct Motion of the peculiar Mariages: Thus, a, ă, a, c, etc. form one Sylable; a, a, c, etc., form two Sylables, ditto; a, a, a, etc., form three Sylables, ditto; small Sounds be writ distinct by each Sylable.

In the Hebrews, all the Syllables begin with Consonants; allowing, that each Sylable of one note, or any has more Syllables than a single Vowel. See Voice.

From the Number of Syllables in Words they become de-

nominated Monosyllables, Bisyllables, Trisyllables, and Poly-

sylables. The First is one Sylable, two Sylables, three Sylables, and many Syllables. See Word, Monosyllable, efg.

The Words derived from the Greek καταλλη, Affliage, are the only Names of Sylables, which make up Sylables of English Voice; it were to be wish'd, we had fix'd and settled Rules to determine the precise Number of Syllables in each Word, that we have Words very dubious in that respect; And therefore this Word comes more precisely to us than in Prof. Many of the Words ending in cius, give a deal of Embarra's to such as place themselves on Eucahætic efg., See Foot, Quality, Measure, efg.

SYLLABUB, a kind of compound Drink, mixt all in all, in the Summer Season; ordinarily made of White-Wine and Sugar, into which is quivered new Milk with a Syring, or Woman Cow.

Sometimes 'tis made of Canary, in lieu of White Wine, in which Case the Sugar is spur'd, and a little Lemon and Nutmeg us'd in lieu of it.

SYLVIA, a kind of Way, the Wine and other Ingredients, which makes them qualify, are mix'd over Night, and the Milk or Cream added in the Morning. The Proporation is, a Pint of White Milk, for White SYLVIA. For White SYLVIA, the Milk, or White Wine, or Rhenish, is put a Pint of Cream, with the Whites of three Eggs. This they steep with Sugar, and best with Birch Rods. This is skim'd, and put a Pint of Milk into it, where, after standing to fette two or three Hours, the Cream is skim'd off. SYLVESEIS, in Grammar, call'd also Conception, is a Figur-

ure whereby we conceive the Sense otherwise than the Sense, as we conceive the Letter, or the Sound of the Words in the Mind, than the Terms themselves.

Other Authors make it a Disproportion, or Unfaultable in the Sense, and not worse in the Sentence; as Res & Res quaest. Authors call the Syllable, Sylaxis. See Syn-

thesis.

'Tis a Figure of very considerable Use for the well under-

standing of Authors: Accordingly, Snyper use it into two Parts.

The Author adds and deducts the Word of a Disproportion, when the Words of a Sylaxis either differ in Gender, or Number, or both; The relation Sylaxis, is when the Relation is the same, and is not express'd; but what we conceive of the Sense is what we think.

SYLLOGISM, in Logic, an Argument, or Form of Rea-

soning, confining of three Propositions; having this Proper-

ity, that the Conclous necessarily follows from the two Pre-

mises; so that if the first and second Proposition be grant'd, the Conclusion must be grant'd in like Manner, and the whole allow'd Demonstration.

If the Premises be only probable, or contingent, the Sylla-

gism is said to be Diseelophial; if they be certain, Apode-

tical; if falre, under an Appearance of Truth, Syllogi-

cism. See Dialectical, Apodetical, and Syllogism.

As often as the Mind observes any two Notions to agree to a third; which is done in two Propositions; it immediately concludes that they agree to each other: Or if it find that there are two Reason, of which one is the same, the other likeness done in two Propositions; it immediately pronounces that they disagre to each other. And such is a Syllogism; in which the conclusion, if it hence appears, is nothing but an inward Diseelour, or Theological, whereby, from two or two Propagation grant'd, is necessarily deduc'd. See Proposition.

Hence, as the Greeks call it Syllogism, the Latins call it Coquetia, or Rationeium, as being a kind of Computation, which, or having diseel'd, is a word, or a word, or the Sun or the Remainder: For, as if we add two together, we thence collect five; & so, if to this Proposition, Man is an Animal, and all Animals eat, you thence deduce this, therefore Man must eat.

Of the three Propositions whereof a Syllogism consist; the first is by way of Emittance, call'd the Proposition, as being preserv'd for the Basis of the whole Argument; the second is call'd the Affirmation, as being subjunctive, and infering.