

www.e-rara.ch

A general natural history

A history of plants

Hill, John

London, MDCCLI [1751]

ETH-Bibliothek Zürich

Shelf Mark: Rar 2575

Persistent Link: <https://doi.org/10.3931/e-rara-20218>

Explanation of the terms used in the descriptions of the flowers and fruits of plants.

www.e-rara.ch

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

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

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

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

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

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

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

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

Explanation of the TERMS used in the Descriptions of the Flowers and Fruits of Plants.

CALYX is a general term expressing the cup of a flower: the part of a plant which surrounds, incloses, or supports the other parts of the flower.

The cups of flowers are very various in their structure, and are distinguished by the several names of, 1. Perianthium. 2. Involucrum. 3. Spatha. 4. Gluma.

1. *Perianthium* expresses that sort of cup of a flower, which either consists of several leaves, or else of one leaf divided into several segments, and surrounds the lower part of the flower.

2. *Involucrum* expresses that sort of cup which surrounds a number of flowers together, every one of which has, beside this general cup, it's own particular perianthium. The involucrum consists of a multitude of little leaves, disposed in a radiated manner.

3. *Spatha* expresses that sort of cup which consists of a simple membrane, growing from the stalk. This kind of cup is of various figures, often diphyllous, or divided into two parts; often simple, sometimes more divided: it incloses sometimes a single flower, sometimes several together, and these have often no perianthium. The spatha is of very different texture and consistence in different plants.

4. *Gluma*. The glume is a species of cup, consisting of two or three membranous valves, which are often pellucid at their edges. This kind of cup belongs to the grasses.

The *Corolla* is the most conspicuous part of a flower; it expresses the coloured, tender part which surrounds the organs of generation. The parts it is composed of are called *petals*: if it consists only of one piece, it is called *monopetalous*; if of more, it is said to be *dipetalous*, *tripetalous*, *tetrapetalous*, and so on, as it consists of two, three, or four, or more parts.

Petal expresses the part of a flower which constitutes the corolla; this generally distinguishes itself by it's singular colour. When the corolla consists of only one petal, it's lower tubular part is called the *tube*; it's upper expanded part, the *limb*: when several petals go to make up the flower, the narrow part, where they are inserted, is called *unguis*; their broader part, toward the end, *bractea*.

Nectarium expresses what is sometimes only a part of the corolla, sometimes, though more rarely, the whole. It is a part destined for the reception of the honey juice of the plant, and is very various in it's figure. Sometimes it is only a hollow in a petal; sometimes it is a little squamma, sometimes a tubercle, and sometimes a plain tube.

Corollula is used to express those little, partial flowers, which together constitute the whole of the compound ones. These are of two kinds, the *tubulatæ* and *ligulatæ*: the tubulated corollulæ are always furnished with a campanulated limb, divided into four or five segments. The ligulated corollula has only a flat, linear limb, terminated by a single point, or by a broader extremity, divided into three or five segments.

Stamina expresses the male organs of generation in flowers: these consist of two parts, a filament and an anthera, though sometimes the anthera stands alone.

The *Filament* is a slender body, supporting a tumid one, which is the anthera on it's head.

The *Anthera* is the principal male organ of generation; it is a small tumid body, affixed on the top of the filament, and is hollow, and contains in it a fine powder, called the *farina*.

Pistil expresses the female organ of generation in flowers; it is composed of three parts, the germen, the style, and the stigma.

The *Germen* expresses a part which supplies the office of an uterus in plants. It is of various shapes, but is always situated at the bottom of the pistil, and contains the embryo seeds.

The *Style* is a part of various figure also, but it is always placed on the germen, and gives origin to the styles; in some plants this is extremely short, in others it seems entirely wanting.

The *Stigma* is also of various figures; it's place, however, is certain: it stands on the top of the style, and, if there is no style, on the top of the germen.

Calyptra expresses a thin membranaceous involucre, usually of a conic figure, which covers the parts of fructification. The capsules of most of the mosses have calyptra.

Pericarpium expresses a covering or case made for the seeds of plants. It is the germen of the pistil enlarged. There are no less than nine species of pericarpia. 1. A capsule. 2. A conceptaculum. 3. A pod. 4. A legumen. 5. A nut. 6. A drupe. 7. An apple. 8. A berry. 9. A strobilus.

1. *Capsule* expresses a pericarpium, composed of several dry, elastic valves, which usually burst open at the points. This kind of pericarpium sometimes contains only one cell or cavity, sometimes more: in the first case, it is called unilocular; in the second, bilocular, trilocular or multilocular, according to the number of cells in it, made for the reception of the seeds.

2. *Conceptaculum*. This expresses a kind of pericarpium, composed of soft and less rigid valves, and containing only one cavity.

3. *Pod*. This term expresses a pericarpium, consisting of two valves, which open from the base to the point, and are separated by a membranaceous partition, from which the seeds hang by a kind of funiculus umbilicalis.

4. *Legume* expresses a pericarpium of an oblong, compressed figure, formed of two valves, joined by a visible suture, both on the upper and under parts, and having the seeds affixed to the upper limb of the two valves, in an alternate order.

5. *Nut*. This term expresses a pericarpium of an extraordinary hardness.

6. *Drupe*. This term expresses a pericarpium, consisting of a soft, fleshy, and succulent pulp, in the center of which there is a nucleus.

7. *Apple*. By this term is expressed a pericarpium, consisting of a solid, fleshy pulp, in the middle of which there are seeds inclosed in membranaceous coverings.

8. *Berry*. By this is expressed a fruit, containing a number of naked seeds, in the midst of a succulent pulp.

9. *Strobilus* expresses a pericarpium, formed of a number of vaginae, with contorted points applied close to one another.

Receptaculum expresses that part of a plant, to which the flower or the fruit adheres; this is a part of a very various figure in the various genera.

Corona expresses any thing growing on the head of a seed. The coronae of seeds are of various kinds; they are sometimes simple, consisting only of a dentated membrane; sometimes pappose, consisting of downy matter. The downy matter, in some cases, is immediately affixed to the seed; in others it has a pedicle growing from it; and it sometimes is composed of simple filaments, sometimes it is ramose.

Amentum expresses what we generally call a *Catkin*. It is a cluster of flowers only of one sex affixed to an axis. In some cases there are squammæ on the axis, which do the office of cups; in others, the flowers are naked.

Volva. A membranous matter, surrounding the bases of many of the fungi, and in many of them of a very singular figure and structure.

Terms used in the description of Roots.

Bulbous expresses a root of a round, or roundish, figure, and usually furnished with fibres at its base. The terms used in describing bulbous roots are, 1. *Solid*, which expresses the whole root to be one uniform lump of matter. 2. *Tunicated*; this expresses such bulbs as are formed of multitudes of coats surrounding one another. 3. *Squammosæ*, expressing such as are composed of, or covered with lesser flakes. 4. *Duplicate*, expressing such as are composed of two; and, 5. *Aggregate*, such as are composed of several smaller roots.

Tuberous expresses a root large and fleshy, thicker than the stalk of the plant, of an irregular figure, and wanting the characters of the *bulbous*. When the tuberous roots adhere immediately to the base of the stalk, they are called *sessile*; when they are fixed to the ends of fibres, *pendulous*.

Fibrous expresses a root, consisting of one, or more, slender bodies, oblong, and less thick than the stalk of the plant. When a fibrous root penetrates straight into the ground, it is called *perpendicular*; when it creeps under the surface, *horizontal*; when somewhat thick, it is called *fleshy*; when very thin, *capillary*; when it runs all the way undivided, *simple*; when divided, or when it sends off smaller roots, *branched*; when its surface is covered with extremely short and fine fibres, *hairy*.

Terms used in describing the Stalks of plants.

Stalk. By this we express that part of a plant, which rises immediately from the root, and which usually supports the leaves, the flowers, and the fruit. The term *Stalk* is used, on most occasions; but, in speaking of the grasses and gramineous plants, the word *culm* is used in its place, to distinguish that peculiar kind of stalk which is general to all these plants, and is not found in any others.

The terms used in describing the stalk of a plant are, 1. *Simple*; by this we understand a stalk which runs up undivided from the root to the top. This is called *naked*, when it has no leaves; when it has leaves on it, *foliose*; when it sends out branches, *ramose*. If it rises strait up, it is called *erect*; if slanting, *oblique*; if it twist round other things, *voluble*; if it bend, *flexuous*; if it floops toward the ground, *reclinate*; if it lie on the ground, *procumbent*; if it emit roots, as it runs along, *creeping* and *sarmentous*.

If the stalk be rounded in shape, it is called *round*; if it make two angles, *ancipital*; if three, *trigonal*; if four, *square*; if more, *polygonal*; if it be lightly ridged and furrowed on the surface, it is said to be *striated*; if more deeply, *canaliculated*; if full of protuberances, *scabrous*; if lightly hairy, *villose*; if more roughly so, *hispid*.

2. *In the branched stalk*, if the branches rise erect, it is expressed by *ascendent*; if they spread, by *diffuse*; if they are very large, it is called *brachiated*.

If the stalk divaricate, or, instead of sending out branches, divides into them, it is called a *composite stalk*; if these divarications proceed by pairs, or every branch is divided only into two others, it is *dichotomous*; if it part into two series of branches, it is expressed by the term *distichous*; if it part into a multitude of ramifications, *subdivided*. All these terms are used also in expressing the different states of the *culm*. When a stalk has no articulations, it is called *equal*; when scaly, *squamose*.

Scapus expresses a peculiar kind of stalk, which supports the parts of fructification of a plant, and does not grow from any part of the common stalk, but rises immediately from the root.

Peduncle expresses that little stalk, which grows from the trunk or branches of a plant, and supports the parts of fructification, the flower, and the fruit, or either: when this is produced from the stalk, it is called *caulinus*; when from the axæ of the leaves, *alaris*; and, when it terminates the plant, or its branches, *terminalis*.

Petiolus expresses that stalk which supports the leaves of a plant, as the peduncle does the fructifications.

Cirrhus expresses the little fibres, which many plants send out from their stalks, and by which they are attached to other bodies.

Terms used in the descriptions of Leaves.

Simple leaves are those, of which the petiole carries but one; *compound leaves* are those, of which the same petiole carries many.

Orbicular expresses a leaf of a roundish figure, the breadth of which is equal to its length, and every part of its edges equally distant from the center.

Subrotund expresses a leaf approaching to the former figure, but departing from it, either in being too long, or too broad, or prominent in some one or more parts.

Ovatum expresses a leaf, the shape of which is like that of an egg, which is longer than it is broad, and the base or lower part of which forms a segment of a circle, though the other extremity is too small to be in proportion to it.

Obverse ovatum expresses a leaf of the same figure with the former, only fixed to the petiole by its smaller end.

Oval. This expresses what might be more distinctively called *elliptic*; a figure approaching to round, but too long for its breadth, and equal in diameter at both extremities, the two ends forming the same segments of a circle.

Oblong expresses a leaf, the length of which is many times equal to the breadth, and the extremities of which are both too narrow to form segments of circles.

Cuneiform expresses a leaf of the shape of a wedge; the length of which greatly exceeds the breadth, and the lower part of which grows smaller all the way.

Lanceolated expresses a leaf of the shape of a spear-point, that is oblong, and growing smaller and narrower, from the middle to the extremity, where it terminates in a point.

[f] *Linear*

Linear expresses a leaf, the two sides of which run almost parallel to one another. The linear leaves are usually narrow, and somewhat broader in the middle than at either end.

Subulated, of the shape of an awl. This expresses a leaf oblong and narrow, broadest at the base, and thence gradually terminating in a point.

Triangular expresses a leaf composed of three rectilinear sides, and three angles, the two inferior ones of which are on a level with the base.

Deltoide expresses a leaf that has four angles, of which those of the summit are farther distant from the center than those of the sides.

Quinquangular expresses a leaf, the sides of which are strait, and make five angles.

Reniform, of the shape of a kidney. This is a leaf of a suborbicular figure, hollowed a little at the base, but that without any angle.

Cordated expresses a leaf of an ovated shape, hollowed a little on each side at the base.

Obversely cordated expresses a leaf of the same figure with the former, but affixed to its petiole, not by the cordated part, which is the base in the former, but by the opposite end.

Lunulated expresses a leaf in form of a crescent: it is a suborbicular leaf, hollowed at the base, with two curvilinear angles, in form of sickles.

Sagittated expresses a leaf formed like the head of an arrow. This is the triangular leaf hollowed at its base, for the insertion of the petiole.

Cordato-sagittated expresses a sagittated leaf, the sides of which are convex.

Hastated, in form of a spear-point. This expresses a triangular leaf, the sides and the base of which are both hollowed, so as in some measure to give the resemblance of a leaf composed of three parts.

Panduriforme; of the shape of a violin. This expresses an oblong leaf, larger at both ends than in the middle, where it is cut in deeply, in a rounded manner.

Bifid; divided into two. This expresses a leaf divided into two parts at the top. When a leaf is thus divided into three parts, it is said to be *trifid*; when into four, *quadrifid*, and so on. *Multifid* expresses a leaf thus divided into a great number of segments.

Trilobous, divided into three lobes, expresses a leaf divided just down to the middle, into three parts, which stand separate from one another, and are rounded at the edges. In the same manner, a leaf thus divided into four parts, is called *quadrilobous*; one into five, *quinelobous*, and so on.

Palmated, in form of an open hand. This expresses a leaf divided into several segments, from the top down to the middle, or to the base.

Pinnatifid expresses a leaf divided into several parts, in form of alæ, or that has three, four, or more, lateral sinus's separated by long, horizontal segments.

Laciniated expresses a leaf which has several sinus's down to the middle, and the lobes which separate these not smooth, but notched, or indented, at the edges.

Sinuated; full of sinus's. This expresses a leaf which has a number of sinus's on its sides, but these separated by lobes not very long, nor themselves indented, or notched, at their edges.

Sinuato-dentated expresses a leaf like the former, but with the lateral lobes of a linear figure.

Retorsum sinuatum expresses a leaf with sinus's at the sides, and with the lobes which divide them pointed, and turned toward the base, like the beards of an arrow.

Quinquepartitum, divided into five parts; a leaf that is separated into five parts, down to the very base, so as to seem made up of five separate leaves, till closely examined. In the same manner, a leaf is said to be *bipartite*, *tripartite*, &c. when the parts it is separated into are two, three, &c. in number.

Integrum, or *indivisum*, expresses a leaf which is intire, and not cut in with any sinus in the disk of the leaf. The term *integerrimum* expresses yet more, that it has no division, or sinuation, of any kind in the border, any more than in the disk.

Dentatum, dentated, expresses a leaf whose edge is beset with horizontal points, of the same matter with the leaf itself, and distinct and separate from one another.

Serrated expresses a leaf whose edge, or border, is notched like a saw, or furnished with points, which make acute angles, and are placed one bending toward the other, and all toward the top.

Retrorsum ferratum; a leaf whose edge is furnished with the same sort of indentings, but in which they are turned backwards, or all look toward the base of the leaf.

Obsoleto ferratum expresses a leaf indentated in the same manner, but the indentings obtuse and weak.

Duplicato-ferratum expresses a leaf ferrated as the first, but with the serratures large, and their edges ferrated again, with indentings of the same kind.

Crenated expresses a leaf, the edges of which are furnished with indentings, which are contiguous to one another, and are neither turned toward the point, nor toward the base.

Acute crenatum; a crenated leaf, in which the indentings are sharp at the ends.

Obtuse crenatum; a crenated leaf, in which the indentings terminate obtusely.

Repandum expresses a leaf, the border of which is marked all round with short lobes, each making a segment of a circle, with obtuse sinus's.

Cartilaginous expresses a leaf, the edge of which is surrounded with a kind of cartilage, or border, thicker than the rest, but of the substance of the leaf.

Ciliated expresses a leaf which is surrounded all the way with parallel hairs, or filaments, so as to give some resemblance of the hairiness of the eye-lids.

Lacerum expresses a leaf, the edge of which is composed of segments of a different shape and figure.

Crispum, curled, expresses a leaf which is undulated, or folded over and over at the edge, which must also be in some manner divided, not entire, either dentated, ferrated, or lacerated.

Erosum expresses a leaf which has several sinus's in it's disk, and also in the edge, or border.

Tomentose expresses a leaf whose surface is covered with hairs so short and fine, that the eye does not distinguish them singly, though the leaf in general is evidently downy, both to the sight and the touch.

Pilose expresses a leaf whose surface is furnished with hairs so large and long, as to be distinguishable by the eye separately. The same idea is expressed also by the terms *hirsutum*, *villosum*, and *lanigerum*.

Hispidum expresses a leaf whose surface is covered with more thick and rigid hairs.

Scabrous expresses a leaf the surface of which has on it several little, irregular prominences.

Aculeated expresses a leaf the surface of which is covered with cartilaginous points, sharp, rigid, and strong enough to wound any tender part of the flesh, and which adhere but slightly to the leaf, and may be easily separated from it.

Spinose expresses a leaf whose disk, or edge, is armed with cartilaginous points, so firmly affixed, that they cannot be separated, without injuring the leaf itself.

Papillose expresses a leaf the surface of which is covered with little, roundish protuberances, or vesicles.

Nitidum expresses a leaf of a smooth and glossy surface, looking as if polished by art.

Plicated expresses a leaf, from the base, or petiole, of which there run, at several distances, vessels, or fibres, which extend themselves to the extreme sides, and some of which raise, and others depress, the disk of the leaf, in an alternate manner, making acute angles.

Undulated expresses a leaf, the exterior part of the disk of which is of more extent than a circle of the same diameter, so that the edges are necessitated to rise and fall in a regular manner.

Rugose expresses a leaf the veins of which are sunk deep, and between which the membranous and fleshy part of the leaf rises in irregular forms, so as to give, upon the whole, a wrinkled surface.

Venosum expresses a leaf on the surface of which there are a vast number of branched vessels, which frequently unite, in an odd manner, one with another.

Nervosum expresses a leaf the vessels of which are simple, and extend themselves parallelly from the base toward the summit, without any ramifications.

Nudum expresses a leaf whose surface is smooth and equal, without any particular marks.

Truncated expresses a leaf the summit, or point, of which seems to have been cut off, or is terminated by a strait line in a transverse direction.

Retusum expresses a leaf whose extremity is terminated by an obtuse sinus.

Præmorsum expresses a leaf which is truncated, and terminated by an acute sinus at the summit.

Emarginatum expresses a leaf which has a little indenting on the summit.

Obtusely

Obtusely emarginated is the term used, when this indenting is terminated on each side by obtuse points.

Acutely emarginated is used, when the points which form the indenting are acute.

Obtuse expresses a leaf which is terminated by a segment of a circle.

Acute expresses a leaf which is terminated by a sharp point.

Acuminated expresses a leaf terminated by a pointed and sharp extremity, like an awl.

Obtusum cum acumine expresses a leaf whose summit is obtuse, but is terminated by a fine, sharp point, affixed, as it were, upon it.

Teres expresses a leaf which is not flattened, as most are, but is of a cylindric figure, excepting the point.

Tubulose expresses a leaf which is hollow within, and makes a kind of tube.

Carnous, fleshy; expresses a leaf which is full of pulp, or of a fleshy substance, contained between the membranes which form the upper and under surface.

Membranaceous expresses a leaf merely composed of membranes, with no pulp between.

Depressed expresses a leaf which has the mark of an impression on one side.

Compressed expresses a leaf which has the same kind of mark on both sides.

Convex expresses a leaf whose middle rises into a protuberant form.

Concave expresses a leaf whose middle is sunk, or hollowed.

Canaliculated expresses a leaf which is hollowed all the way of it's length with a channel.

Ensisiform, of the shape of a sword, expresses a compressed leaf, which is thin, and edged, as it were, on the sides, and which has a high rib running down it's middle.

Linguiform, in shape of a tongue, expresses a linear leaf, which is obtuse, fleshy, depressed, convex on the under side, and usually cartilaginous at the edge.

Triquetrum expresses a leaf which has three faces, or sides, all flat. This is usually also subulated, or grows gradually smaller from the base to the point.

Trigonal expresses a leaf that is much like the triquetrous one, but in this the several faces are each hollowed in form of channels, and the ribs are sharp and membranaceous. A leaf that has, instead of three ribs, or edges, four or five, is, in the same manner, called, *tetragonal*, or *pentagonal*, &c.

Sulcated expresses a leaf that has a number of ridges all round it, with obtuse sinus's.

Striated expresses a leaf that has a number of longitudinal furrows on it's surface.

Compound expresses, in general, a leaf which is formed of several other lesser leaves. In this large sense, however, it is divisible into several kinds: 1. The compound ones properly and distinctly so called. 2. The decomposed; and, 3. The supradecomposed; of each of which in it's place. In describing these kinds of leaves the whole leaf, which is the result of the combination, is called *folium*, and the small leaves, which together compose it, are called *foliola*. A *compound leaf*, properly and distinctly so called, is only formed of one series of *foliola*, or of one composition.

Digitated expresses a compound leaf, formed of a number of simple *foliola*, placed regularly on a common petiole: in a strict sense, however, it is used only to express such a leaf as is composed of more than four *foliola*.

Ternatum expresses a compound leaf, consisting of only three leaves on a common petiole.

Sessile expresses a leaf affixed immediately to the stalk, or root, without any petiole.

Petiolate is the contrary of sessile; it expresses a leaf affixed to a plant, by means of a peculiar pedicle, which pedicle, in case of a leaf, is called petiole, though, in case of fruit, a peduncle.

Binatum expresses a kind of compound leaf, formed only of two *foliola* on one petiole.

Ramulosum expresses a leaf of the compound kind, in which there are several *foliola*, sustained on a branched petiole.

Pinnated expresses a leaf formed in manner of a wing, and composed of two ranges, or series, of *foliola*, annexed to the two sides of one common, oblong petiole. Of the pinnated leaves, however, there are several kinds: 1. The *pinnated with an odd one*. This expresses the pinnated leaf, when, beside the two series just mentioned, there is an odd leaf at the extremity of the petiole. 2. The *pinnated abrupt leaf*. This expresses a pinnated leaf in which there is neither an odd leaf nor a tendril at the end of the petiole. 3. The *oppositely pinnated*; which is when the folioles stand opposite to one another on the common petiole. 4. The *alternately pinnate*; when the folioles stand not opposite, but alternately. 5. The *interruptedly pinnate*; in which the folioles are irregular and unequal in size or situation. 6. The *curvated-pinnate*, wherein the extremity of the petiole has one, or more, tendrils, instead of an odd leaf. 7. The *decurrently pinnate*; in which the folioles extend beyond their proper base,

Leaves of Plants.

Pl. 2.



Distinctions of Leaves according to their Situations. &c.

base in going down the petiole, and, as it were, make it alated. 8. The *membranaceous pinnated*, of the same form with the last, but with the petioles themselves membranaceous and articulated. 9. The conjugated pinnated leaf, when the whole compound leaf consists of only two folioles on the petiole: this kind of pinnated leaf may be either abrupt, cirrated, membranaceous in the petiole, or stipulated.

Lyratum, in form of a lyre, expresses a compound leaf, formed of a simple leaf, which divides itself in it's lower part, in such a manner, that the incisions below make segments, which stand out from the body of the leaf, and are detached from the larger segment, which forms the upper part.

Decomposite expresses a leaf, the common petiole of which divides itself twice, before it is furnished with leaves.

Duplicato-ternatum expresses a leaf consisting of leaves which are themselves composed of three leaves each.

Bigeminatum expresses a leaf formed of a double conjugation of lesser leaves.

Duplicato-pinnatum, or *pinnato-pinnatum*, expresses a leaf composed of several others, each of which is itself composed of several smaller leaves or foliola.

Supradecomposite expresses such leaves as have the common petiole divided more than twice, before it is charged with leaves or foliola.

Triplicato-ternatum expresses a leaf, the petiole of which divides three times, or into three branches, before any leaves or foliola are placed on it.

Ternato-ternatum, the same with *triplicato-ternatum*.

Triplicato-pinnatum expresses a leaf, the petioles of which send out three alated subdivisions, before it has any leaves on it. These are terminated sometimes by two foliola each, and in that case are said to be abrupt; sometimes by an odd leaf, and are then called *triplicato-pinnata cum impari*.

Inflexum expresses a leaf, which, in growing from it's base, turns it's point again toward the plant.

Erectum, *erect*, expresses a leaf so situated, that it makes an acute angle with the stalk.

Patent expresses a leaf which stands almost straight out from the stalk, or nearly at right angles with it.

Horizontal, or *patentissimum*, is a leaf which grows perfectly horizontally with the stalk, or truly at right angles with it.

Reclinate, or *reflex*, expresses a leaf which has it's summit lower than it's base.

Revolutum expresses a leaf, the upper part of which rolls itself downward.

Radicans expresses a leaf which pushes out roots from it's disk, or lower surface.

Natant expresses a leaf which floats upon the surface of the water.

Seminal expresses the leaf which appear first from the seed of a plant, and is usually different from the rest.

Radical expresses a leaf which grows immediately from the root of a plant, not from the stalk.

Cauline expresses a leaf which grows not immediately from the root, but on the stalk of a plant.

Ramosum expresses a leaf which grows not on the main stalk, but on it's branches.

Subulare, a leaf which grows at the ramifications, or under that part of the stalk from whence there grow one, or several branches.

Florale expresses a leaf that is formed near the flower, and which never appears but with the flower.

Peltatum expresses a leaf, the petiole of which is affixed to the disk itself of it, and not to the base, or to the edge of the leaf.

Sessile expresses a leaf which rises immediately from the stalk, without any pedicle.

Decurrent expresses a leaf which adheres immediately to the stalk, or branch of a plant, without any pedicle, and which has it's lower part extended, and running some way along the branch.

Amplexicaule expresses a leaf, the base of which extends itself in such a manner, that it environs and surrounds the stalk every way; in this case the leaf is generally of a sagittated, or heart-fashioned, shape, and is sessile.

Semiamplexicaule expresses a leaf resembling the amplexicaule, but with it's lobes at the base, too small to entirely surround the stalk.

Perfoliate expresses a leaf, the disk of which is pierced by the stalk, the branch, or the peduncle, and does not any where touch or adhere to it's edges.

Connate expresses leaves cohering together, or whose bases unite so as to form but one body.

Vaginans expresses a leaf, the base of which is formed like a cylinder, and surrounds the stalk, as is the case in many of the grasses.

Articulated expresses leaves which grow one on the top of another.

Stellate expresses leaves which grow not less than six at a joint, and are arranged like the rays of a star.

Ternate expresses leaves which grow three at a joint, surrounding the stalk; when there are four or five, they are called *quaternate* and *quinate*; when more than six, *stellate*.

Opposita expresses leaves which stand two and two, with the stalk between them.

Alternate leaves, which do not stand opposite, but one over another all the way up the stalk.

Sparsa, leaves which are placed irregularly over the several parts of the plant.

Conserta expresses leaves placed in clusters, or so close to one another, that it is not easy to discover their exact situation.

Imbricata expresses leaves placed over one another, in the manner of the tiles of a house, or like the scales of fishes.

Fasciculata in little packets; this expresses leaves, many of which arise together from the same point.

Frondes expresses leaves, consisting of several other leaves, and forming the whole of the plant; as is the case in the fern kind, in which, the fructification being on the back of the leaves, the single leaf makes the whole plant. In this case it is not called *Folium*, but *Frondis*.

