XIII. *Remarks on some technical Terms used in Botany.*

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AFTER the scientific Observations of Professor Martyn on Botanic Language, published in the first volume of this Society's Transactions, and in an English translation of the *Termini Botanici* of Linné, any thing further on the same subject may seem unnecessary: but I am in the habit of using some terms in a sense different from the Linnean definitions, and of excluding as well as introducing others, in my descriptions of plants; and I wish to learn how far the opinions of more experienced botanists agree with my own. Should I be encouraged, I may probably in future study this part of botany more particularly. What I have now to offer follows alphabetically.

Abbreviatus. This term in *Amæn. Acad.* is only mentioned under Perianthium, where an abbreviated perianthium is defined, not so long as the tube of the corolla. I recollect no instance of its being used in descriptions; so that it is scarcely worth retaining except for a specific name. *Brevis* supplies its place, and admits of degrees of comparison more readily.

Abruptè pinnatum folium. I consider every leaf which terminates without an odd foliolum, as abruptly pinnated. Linné excludes *Cirrhus* also, or any other part: but, in that case, such a leaf
would

would rarely be met with ; for I have yet seen no abruptly pinnated leaf, which had not some little process or other beyond the last foliola. *Cirrhi* are inserted very differently in different plants ; and being particular organs destined to support scandent stems, their insertion should always be separately mentioned.

Acetabuliformis. Like a circular shallow saucer with the sides more or less incurved. *Tab. 5. f. 4.*

Acicularis is nearly synonymous with *subulatus*, but I consider it as indicating a more delicate and pungent point.

Acuminosum folium. This I would define, apice in acumen planiusculum attenuatum, to distinguish it from all other points.

Adscendens. Synonymous with *incurvus*.

Adversorum foliorum paginae superiores, a directione quâ inferuntur ratione caulis, versus cœlum vertuntur, hinc quantum maximum lucis obtinentes : ut folia *Ulmæ campestris*, *Linn.*

The definition of this term in *Amæn. Acad.* is exceedingly obscure, and can be understood only from examples of it. All the *adversa folia* I have seen were both *disticha* and *obliqua*, according to the Linnean meaning of *obliqua*.

Æquata superficies omnis inæqualitatis expers est : nec canaliculata, striata, scrobiculata, punctata, &c.

I have found this term very useful : it differs from *planus*, in not requiring the part to be level, or in a rectilinear direction, but frequently occurs in round bodies ; as in the peduncles of *Ixiæ*.

Alveolata pars depressionibus oblongis exaratur ; ut totus *Liriodendri tulipifera*, *Linn.*

Affurgens

Affurgens scarcely differs from *adscendens* or *incurvus* : it seems peculiarly proper to describe the change which takes place in the position of the leaves of *Mimosa* and other sleeping plants.

Axis. Synonymous with *Columella*.

Bina folia. Leaves inserted in three very different ways may yet all be called *bina* : either when they are opposite, as in *Lamium*; fasciculated, as in *Pinus*; or approximated, as in the flowering branches of *Datura*.

Calathiformis. Bowl-shaped : hemisphærical and concave. *Tab. 5. fig. 5.*

Calyx. Jussieu, to whose judgement I pay the highest deference, contends that this term is the most proper for that involucre, which in the natural order of *Liliaceæ* has hitherto commonly been called corolla. Among other reasons he adduces the Linnæan canon, that this part is a continuation of the cuticle of the plant. I very much doubt, however, if this really be true; for the spathe in this natural order seems to me the first expansion of the cuticle, and the true calyx. A proper bractea will always be found at the base of the pedunculus, though in many genera it is hid between the insertion of the leaves; but in *Hemeranthus* it is coloured, and very conspicuous.

Campanulatus. Somewhat like the bell of a church; at the base more or less bellying out, with the rim a little recurved. *Fig. 6.*

Capreolatus. Synonymous with *cirrhosus*.

Circinalis. This term is confined by Linné to describe the manner in which the young spikes in the natural order of *Boraginææ*, and

the young leaves of *Filices*, are rolled up : it is then synonymous with either *involutus* or *revolutus*.

Colum. A common receptacle on which the seeds are inserted in some pericarpiums : it is probably analogous to the placenta in animals, and very conspicuous in the natural order of *Didynamia Angiosperma*.

Cotyliformis. This term differs from *acetabuliformis* in having straighter sides not incurved. *Tab. 5. fig. 7.*

Crateræformis. Somewhat like *calathiformis*, but not so much bellying out, and rather approaching to *infundibuliformis*. *Fig. 8.*

Cyatbiformis. Like a wine-glass : more or less obconical and concave. *Fig. 9.*

I have found this, and all the other terms of which I have given figures, very useful in distinguishing some of the species of *Narcissus* and *Erica*.

Declinatus. Bent down.

This term is rendered quite unnecessary by *deflexus*, *recurvus*, and *reclinatus*, which express the mode of flexion more precisely.

Discus. The surface of any part excluding the borders.

So I would distinguish it from *Pagina*.

Elliptica pars longior quam lata est, marginibus medio lineis fere parallelis, extremitatibus plus minus semicircularibus, æqualibus.

Linne often confounds this term with *oval*.

Fastigiatus, according to the two Linnean definitions, is synonymous with either *corymbosus* or *conicus*.

I now only use it for any part that is towering or lofty.

Favosus.

Favosus. Somewhat like a honeycomb.

This term will be found very useful in describing the receptacles of the class *Syngenesia*.

Flagellum. Professor Giseke wishes to distinguish a *Caulis farmentosus* by this title: but I think two names for one part unnecessary; and on the same principle I reject *Culmus*, *Scapus* and *Frons*, for *Caulis*, *Pedunculus* and *Folium*.

Hypocrateriformis corolla. I would distinguish this by its having the lower part of the limb perfectly horizontal with respect to the tube: not by the shortness of the tube.

Irregularis corolla. Having its parts differing in proportion.

The essential character of an irregular corolla seems to me to respect solely proportion. Many species of *Gladiolus* have all the divisions of the corolla exactly alike, except the uppermost being a little more erect; and yet they are evidently irregular.

Lamina. I always, with Forkæl, describe the upper part of a petiolated leaf by this term. *Limbus* I confine to corolla, even in polypetalous as well as monopetalous flowers.

Lenticularis. Plus minus sphaericus margine acuto; instar feminum *Dracænæ ensifoliæ*, Linn.

Ligulatus. Somewhat linear, and much longer than broad.

Lyræformis. Figura superne semiovalis, inferne angustior lateribus lineâ plus minus arcuatâ excisis.

The flowers of *Ixia grandiflora*, *Roch.* afford an example of this term.

Marcescens. Not falling off after it is withered; in which sense Lœffling uses it.

Medioliformis. Somewhat globular and truncated at both ends, like the nave of a wheel.

The tube of *Cynoglossum omphalodes*, Linn. is an instance.

Meniscoideus. Somewhat globular, with one side concave.

Nitidus. Synonymous with *lucidus*.

Obliquus. Aslant: cut away in a sloping direction, like the flowers of *Vinca* and leaves of *Begonia*.

Linné has defined this term very differently, and has given for examples of his meaning the leaves of *Protea* and *Fritillaria*: these leaves, however, may be more properly called *torta*; and he himself sometimes uses *obliquus* in the sense I have given to it above.

Pagina. The whole surface of any part, including the border.

Papillaris. Somewhat like a nipple.

I think this term should be distinguished from *verrucosus*. *Papillofus* sounds too like *papulosus*.

Persistens. Continuing a long while green with respect to the other parts of the same flower or plant.

Poculiformis. Hollow and cylindrical with an hemispherical base, the sides at the top straight, and not recurved. *Tab. 5. fig. 10.*

Prismaticus. Synonymous with *triqueter*.

Recepta-

Receptaculum. The common support or base of more flowers than one : it is a very important part in the class *Syngenesia*.

Reclinatus. Curved first in a convex, then in a concave line ; like the leaves of many species of *Erica*.

Scrobiculata pars depressionibus majusculis suborbicularibus excavatur ; ut colum *Trientalis europææ*, Linn.

Spiralis linea uno pluribusve circulis sensim elevatur.

The different parts of vegetables may be either spirally inserted, like the flowers of *Ophrys spiralis*, Linn. or spirally directed, like the leaves of *Costus speciosus*, Smith. : or they may spirally extend themselves, like the stem of *Vallisneria palustris*, Linn.

Strophiola. A fungous or callous appendage placed about the hilum in the seeds of many genera : it is very singular in some of the species of *Mimosa* and *Glycine* from New Holland.

Tortum folium. More or less twisted.

Twisted parts should be accurately distinguished from *spiral* parts, though the same direction occurs in both : but in the former the axis of the spiral line is in the parts themselves ; in the latter quite distinct, or out of them.

Torus. The common support, or base, of the different parts of a simple flower.

In many flowers it is very small, and entirely hid by the parts inserted upon it ; but in *Ranunculus*, *Passiflora*, *Magnolia*, and many other genera, it becomes very conspicuous.

Trapeziformis. An area with four unequal sides.

Trochlearis.

Trochlearis. Pulley-shaped, or like a cylinder that is narrowed in the middle.

The embryo of *Corypha* is an example of this term.

Turbinatus. Top-shaped: it only differs from Pear-shaped in being shorter, and more suddenly attenuated at the base.

Verrucosus. Covered with rough tubercles like warts.

EXPLANATION OF THE FIGURES.

- TAB. V. fig. 4. Corona acetabuliformis Narcissi Radiiflori, *Salisb. Prodr.*
 5. Corona calathiformis Narcissi Grand-Citronier, *Floristarum.*
 6. Flos campanulatus Scillæ campanulatæ, *Soland.*
 7. Corona cotyliformis Narcissi patellaris, *Salisb. Prodr.*
 8. Corona crateræformis Narcissi ampli, *Salisb. Prodr.*
 9. Corolla inferne cyathiformis Apocyni Androsæmifolii, *Linn.*
 10. Corona poculiformis Narcissi poculiformis, *Salisb. Prodr.*

Onchidium tapha.