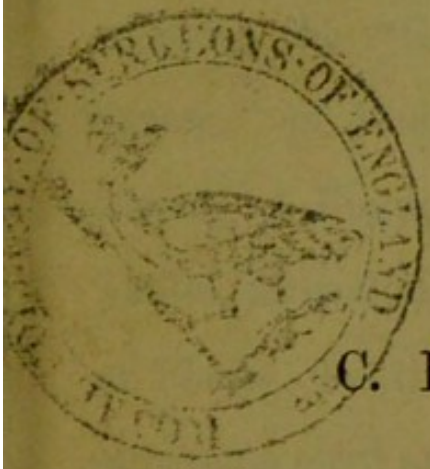
Principles and rudiments of botany : delivered according to an lulian system of arrangement and Julian method of classification / by C.R.W. Watkins.

PRINCIPLES AND RUDIMENTS

OF

BOTANY;

DELIVERED ACCORDING TO AN IULIAN SYSTEM OF ARRANGEMENT AND JULIAN METHOD OF CLASSIFICATION.



BY

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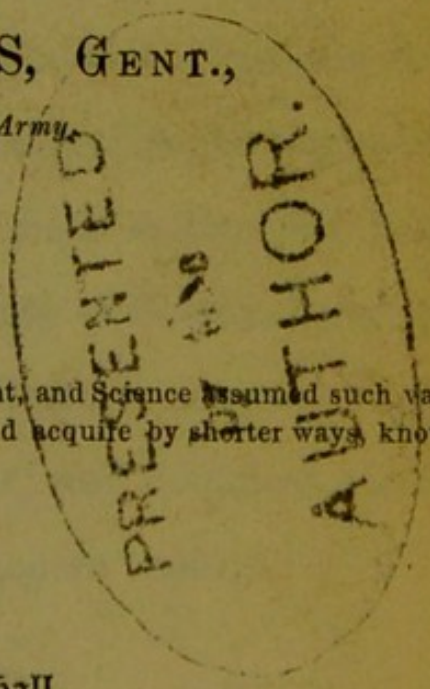

"Seeing that the world hath grown to so great an extent, and Science assumed such vast dimensions, who would not comprehend more readily, and acquire by shorter ways, knowledge and wisdom."—ANON.

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Dedication.

THIS

Literary and Philosophical Treatise,

Descriptive of the Vegetative products of Nature, and comprehending the "Genera Plantarum" of Linneus; the "Sexual System" of Linneus; the System of De Jussieu; the famous Classes of Eminent Botanists; also several original Botanical Tables, as well as the theory and doctrine of Vegetative Products, or Plants; but the several Botanical Classes of this Iulian system of arrangement and Julian method of classification, distinguished by terms, definitions, and denominations more mathematical and appropriate; the Principles and Rudiments of Botany, delivered in language better adapted for the intellectual amusement and instruction of young persons of both sexes; and Botanical science rendered more agreeable to students of modern times,

IS DEDICATED,

TO THE PUBLIC,

BY THE AUTHOR.

PREFACE.

THERE are already published very many good botanical works, adapted for the amusement of the amateur, and technically denominated "popular." This treatise, therefore, relates to another branch or portion of the science of botany, and will enable students to comprehend correctly botanical system and arrangement, as well as to understand the natural affinities and organical structure of vegetative products, or plants.

While premising, I shall indulge my readers and botanical friends with a quotation from Dr. Colin Milne's botanical dictionary. The Doctor is a learned professor, and a "*laudatus vir;*"—"If the sex of plants be a doctrine of so much importance in botany as to justify the joining of things which nature never joined, and the separation of other things which were never meant to be disjoined, it certainly authorized the great reformer of the science to erect several genera out of one, especially when the leading principles of his system required it. The liberties he (Linneus) has taken with the genera of Ray, Tournefort, Boerrhaave, and other eminent botanists, are well known. In fact, what a perplexed study is botany now rendered by the prodigious multiplication of synonymous genera! To whom, then, is that mighty confusion owing? Why, in a great measure, to Linneus, who, by splitting some genera, incorporating other genera, and introducing a variety of new names, has rendered every other system unintelligible without the assistance of his nomenclature." *Third edition*, 1805.

The learned professor of laws estimates lightly the fame of the immortal Swede, Charles Von Linne.

Let my readers peruse another quotation, of later date:—"Hitherto, the science has been in some degree obscured by the terms employed in its illustration. Botanical physiology has been explained too frequently by references to animal economy; and because there are resemblances in some particulars, a too general idea has been entertained that the whole of the one might be understood by reference to the other."—"*Main's Illustrations of Vegetable Physiology, second edition.*"

Another quotation follows regarding the ill habit of writing acquired by botanical writers and authors:—"So much is the diffusiveness of the 'natural system' of De Jussieu complained of by practical as well as literary botanists, that it is a consummation devoutly to be wished for that some influential master, or band of masters, would undertake the task of circumscribing the 'natural system,' and invent some scheme of amalga-

mating the scattered orders into manageable groups, so that the system might be more inviting to the student than it is at present."—"*The Book of Botany*," *fourth edition*, 1844.

Thus, although the system of Antonius Laurentius De Jussieu has been denominated the "natural system," and extolled as excellent, his very pupils and disciples, as well as other botanists, are continually making alterations and emendations. But the system of the "great master," Linneus, remains perfect and entire, as originally published by its great inventor.

The two systems are, comparatively speaking, like two cloaks hung up for public use. The natural De Jussieuian cloak is worn and patched by every botanist and amateur; but, being found defective, the wearer is obliged also to put on the artificial Linnean cloak, because found to be far the better cloak of the two; and the more its goodness is tried the more its superiority becomes manifest. Laurentius De Jussieu has only imitated and derived his system from the sexual system of Linneus; but he has not improved Linneus' system, nor the science of botany, according to a proper way of reasoning; for each class of the Linnean sexual or artificial system comprises more collections, or affinal kinds of plants having a similar organical and constitutional structure, as well as a similar mode of fructification than the classes of De Jussieu's system. The several kinds of plants constituting the classes of De Jussieu's system are not arranged, therefore, according to their natural affinities so methodically and appropriately, nor, consequently, so scientifically as the classes of Linneus' system.

It is, however, amazing that so learned a man as Linneus should not have discovered botanical terms and definitions more mathematical and select. Linneus has harnessed his ideas in the language of his profession as a medical practitioner; and he has barbarised the fair science of botany by mouth-filling, harsh-sounding Greek words, as well as by the queerest analogies between plants and animals.

How mighty strong are the chains of habit and education! From the example of that great philosopher it would seem that the faculties of the human mind are as mechanical as the functions of the human body; and that invisible genii of the Supreme Being keep the keys thereof to supply and let loose the thoughts and imaginations of mortals at their will and pleasure.

Botany is the most excellent region of science, and comprehends a knowledge of the most beautiful objects of creation; a knowledge of all that can charm the intellect or improve the understanding. Is there anything more beautiful than the many-coloured fabric of perfect and expanded flowers?

But the science of botany must be acquired by means of studying the discordant and diverse systems of Cœsalpinus, of Ray, of Tournefort, of Linneus, of De Jussieu; otherwise of their several systems modified and altered by modern professors; systems comprising a quantum of theory and doctrine, clothed in words so unmeaning, technical denominations so uncouth, terms so whimsical, and verbiage so antagonistical, as to perplex, and weary, and deter many from labouring through the varied chaos.

Botanical students are confounded to find that they have to learn a Babel of languages before they can acquire a scientifical knowledge of vegetative products, or plants. The terms and denominations of the *classes et ordines* of the sexual system remind us that Linneus, seemingly not satisfied with the duties of his own profession, meddles with the duties of the professors of law and divinity; for he treats of nuptials and settlement, of many marriages and secret marriages; also of one, two, and three houses, with a morbid perversity and obliquity of imagination almost ludicrous, as if vegetative products were endowed with the functions and faculties of human beings.

Aware, however, of the great defect of his sexual system, Linneus remarks to all botanists and amateurs, in the preface to "*Genera Plantarum*," "New names should alarm no one; if they are not agreeable, form new ones for yourself, or retain the added synonymes if they are more agreeable." Linneus votes for an *omnium gatherum;* all botanists, therefore, are at liberty to choose that system they may consider the best, and to adopt those terms and denominations they may consider the most appropriate.

This literary and philosophical treatise comprehends and comprises two parts. In the "first part," vegetative products are primarily distinguished as grasses, herbs, trees, and fruit trees, or fruit plants, according to their organical and constitutional structure. The material substance of plants is also defined and discriminated, as also the several organical and constitutive parts and portions of plants.

The "second part" treats of the science of botany; comprising botanical physiology, and containing synoptical tabular lists of several systems and methods of classification invented or discovered; also containing synoptical and methodical lists of the principal modes of gemmation, congemmation, and fructification; as well as synoptical and methodical lists of the several kinds of peri-frux, fruxamentum, and fruct-amentum, or diversified organical receptacula, containing the embryo ovula of plants.

With regard to the synoptical list of the several classes, systems, and methods invented from the time of Cœsalpinus until the time of Linneus, should some fair Leuconoe, or still fairer Penelope, peruse the lists, and scan the classes with the piercing eye of feminine perception, and think them deficient, I can only say that the different classes as denominated, together with the names of their several authors, are arranged methodically, according as I found them written in botanical works. I have attributed to each botanist no more than he could fairly lay claim to as his own invention.

Should some student of either sex say that I have yoked too many words to drag along one small class, and that there are sufficient for a Roman triumph, I reply that the names of the addomal and other botanical classes are not longer than the names of classes of the Linnean sexual system, "*Tetrandia Monogynia*," for instance. Besides, it is often proposed to couple Linneus and Laurentius De Jussieu together botanically, and to make their systems "chum," as they say at college, or to make their systems "chul together," as they say in India; so that, to write the

denomination of one class—for instance, of Dodecandria Monogynia (ordo naturalis), Sempervivæ, forty three letters are required according to the conjoined systems of the two professors.

In this botanical treatise, many of the names and denominations are new, but I believe them to be appropriate. The names of classes and technical terms are Latin. With regard to the phraseology of many terms used, I have adopted the letter k instead of the letter c, in order to prevent confusion of ideas; for instance, ikona instead of icona; krementum instead of crementum; kalyx instead of calyx; kapsulum instead of capsulum; kalxonum instead of calxonum. The technical terms and denominations of most other arts and sciences are peculiar, and why should not botanical science have peculiar terms? a botanical Ikonum is not an image.

Several names of plants given as examples in the list of principal modes of gemmation, congemmation, and fructification are taken from Rheede's "Hortus Malabaricus," they are evidently Latin words and names, and if not derived directly from the Latin they may probably be derived from that ancient Pehlevee or Assyrian language the original parent of both the Greek and Latin as well as of the Sunskrit. It seems surprising that Linneus did not adopt many Hindoo names of plants. In the preface to "Genera Plantarum" Linneus observes, "I have given credit to no authors except Dillenius in his 'Hortus Elthamensis,' and to Rheede in his 'Hortus Malabaricus,' whom I have found to be accurate." Yet Linneus rejects the "pura et usitatissima verba Indica," and we are perplexed and mystified with scheuchzeria, weinmannia, erithroxylon, macrocnemum, messerschidmia, forskohlea, lagerstromea, fothergillea, and many other barbaric terms invented by way of keeping botany to himself.

The science of botany improves the mind of every person devoted to the study of language, of poetry, of music, of mathematics, of architecture. The study of botany too surely reminds us that immortality is the goal of human life; and too surely reminds us of the Eternal Architect by whose inconceivable power creation originates and exists.

It behoves every person who has the ability to endeavour to render the font and stream of mental enjoyment as pure as possible, not only by means of method and correct scientifical arrangement, but also by means of a proper choice of words, terms, and definitions, or botanical denominations. Linneus declares that "physicians have no right to prescribe names to botanists." The plants named mechoacan, scammony, soldanella, according to their natural affinities, are comprehended under one genus; viz., Convolvulus. "Are we," adds Linneus, "on their account to make each of them a distinct genus, and contrary to the laws of nature?"

The great difficulty in botanical science lies in determining what constitutes a genus; and what is to be the name, constitutional circumstance, and distinctive fasma of each collection of plants or vegetative products having a similar mode of gemmation, congemmation, and fructification, or a similar mode of propagating their offspring and species. I have adopted the genera of Linneus (and the name of each genus, or affinal kind of vegetative product is written and denominated according to the latest edition of "Genera Plautarum," published by Dr. Reichard), because I

know that a system would be incomprehensible to botanists if those genera were ignored, although I believe many of them to be erroneous and ill-defined. However, I claim the botanical privilege, as a system-builder, of altering and rendering more correctly the name of each several following genus; because these few alterations are according to a correct mode of classification, and in conformity with the principles of this Iulian system of arrangement. The term "fallæ" signifies leaves, both rete-tissued and filo-tissued. In this treatise the term di rythmæ has been instituted as the name of the sweet-william.

The pink (Dianthus) has 4 or 5 idola; 10 to 20 ikona, and 20 to 40 petala. The flowers are few, and di, tri, quinque ligate, and they terminate separately and irregularly. The sweet-william (Di rythme) has 2 idola, 10 ikona and 5 petala. The flowers are numerous and chorovinkulate, and the mode of gemmation comprises several synterminal and equi marginal chorrythma, or conturrythma. They cannot, therefore, be of the same genus; beeause the numerical indices, and typical characters of each gemmos, or hermaphral gemm bud of the two kinds of plants, are not symbolical; but differ, as well as the mode of gemmation, more widely than the specific, and physical circumstances of their constitutional, or peculiar veget-organical structure.

Adenikona	instead of	Adenanthera	Disikona	instead of	Disandra
Afallanthus	,,	Aphyllanthus	Elionidum	,,	Heliophila
Allofallæ	,,	Allophilus	Fallorindæ	,,	Hydrophyllax
Bivertex	,,	Dianthera	Fallika	,,	Phyllica
Calofallæ	,,	Calophyllum	Fallakne	,,	Phyllachne
Caryofallæ	,,	Caryophyllum	Kalykanthus	,,	Calycanthus
Ceratofallæ	,,	Ceratophyllum	Myriofallæ	,,	Myriophyllum
Chærofallæ	,,	Chærophyllum	Podofallæ	,,	Podophyllum
Chrysofallæ	,,	Chrysophyllum	Pallanthus	,,	Phyllanthus
Cyclovertex	,,	Corymbium	Zilofallæ	,,	Zilophyllum
Dirythmæ	for the	Sweetwilliam	Zygofallæ	,,	Zygophyllum.

"All the real knowledge possessed by mankind depends on method," is the leading opinion of Linneus' philosophy; yet Linneus, regardless of science, and the voice of wisdom, immediately converts his classes into ordines, and his ordines into classes; and the system of the great master, like the baseless fabric of a vision, involves disorder and mysticism. Students, instead of arranging their knowledge distinctively and correctly, or methodically, wind up with a medley of andrias, gynias, houses, brotherhoods, powers, syngenesias, gynandrias, namias, gamias, polygamias, cryptogamias. If two armies in the field were suddenly to find their companies expanding into divisions, and their divisions dwindling into companies, what dismal and inextricable confusion would entangle both hosts.

It is the chief object of science to simplify and hamonize; as well as to deliver doctrine briefly consistent with perspicuity. I consider, therefore, that the facility of frequently rendering the singular case of botanical words and terms into the plural case in a similar manner is an improvement in botanical science. Ex., amentum, amenta; vestium, vestia; bractelum, bractela; acetidium, acetidia; frondulum, frondula; petiolum,

petiola; pagænum, pagæna; capriolum, capriola; ikonum, ikona; idolum, idola; stypium, stypia; zelonidium, zelonidia.

The name of a genus has been sometimes classed in two Sexdomal classes, or ikon-idulia; in the first instance, according to the number, or arithmetical quantity of numerical indices—Ex., Phytolacca, Reseda, Trianthema; and secondly, according to the distinctive fasma of the simplex or complex gemm bud—Ex., Statice, Tussilago, Cynara, Humulus, Trifolium.

Botanical knowledge and examples have been derived from Dr. Colin Milnes Botanical Dictionary, 3rd ed., 1805, Encyclopepia Brittanica, Genera Plautarum of Linneus, Systema Vegetabilium of Linneus, Dr. Darwin's Principia Botanica, Robson's British Flora, Hugh Rose's translation of Linneus' Philosophia Botanica, Conversations on Botany, by a bevy of Ladies, 2nd ed., 1818; Lindley and Moore's Ferns of Great Britain and Ireland, William Curtis (Linnean) System of Botany Illustrated, John Miller's Illustrations of Linneus' System, Sir J. Hill's, M.D., English Botany, 1766, William Nicholson's British Encyclopedia, containing an accurate and popular view of the improved state of human knowledge, 1809, as also several Encyclopedias and Botanical Treatises especially l'Histoire Naturelle par Buffon.

PRINCIPLES AND RUDIMENTS OF BOTANY.

OF BOTANY.

STATEMENT AND DEFINITIONS.

BOTANY is a description of the vegetative products of the terraqueous globe and planet.

Vegetative products, or plants otherwise the organical products of the vegetative state of nature, are natural bodies of creation, created and produced from cereal ovula, harvest seeds, or multiform vegetative eggs; and they partake of an organical structure and system of parts, portions, limbs, and members.

Vegetative products, or plants, have a material and fluid increase and growth; also a vitality, or vegetal instinct and functions of sex and propagation. The several organical fibro-membranous limbula et membranula, constituting the masculine and feminine indices of their regenerative vitality and duality, are produced and distinctly visible in the frumental and flor-amental kalyces et kunabula, supporting, encircling, surrounding, enclosing, containing, and enveloping the embryo ovulum et ovula of the parent plant, or plants, during the processes of sexual gemmation, congemmation, regeneration, and fructification.

OF THE PHENOMENA AND ORGANICAL STRUCTURE OF VEGETATIVE PRODUCTS, OR PLANTS.

Vegetative products are primarily distinguished by the science of Natural philosophy, as grasses, herbs, trees, fruit-trees, and ab ovo natal plants.

Vegetative products are also distinguished by the science of Experimental philosophy according to the diverse structure of the umbylikal shaft, or vegetant stem of the plant.

1. *Cylindro-columnate and cylindro-filumnate* stem plants; comprising vegetative products, having either palma-similar and columnate stems; or otherwise having arundo-similar and filumnate stems.

2. *Branched and kortextal* vegetative products; comprising arborescent plants, having ligneous and germinating stems similar to the condensed and indurated stems of the oak tree, teak tree, apple tree, walnut tree, rose tree, holly tree, cedar tree, larch tree, laurel tree, mango tree.

3. *Radikaliæ herbæ and bulbo-stem herbæ;* comprising knobbo-placental and di-placental vegetative products, or plants having an annual stem, or stems of a diversified cylindro-filumnate, and nod-annular, or bracchiulate structure. The material substance and fabric of the umbylikal shaft, or vegetant stem of either herba comprises and consists of a fibro-membranous, or pytho-membranous vegetal krebum, having a filo-tissued and longitudinal texture and continuity; otherwise having a rete-tissued and reticulated, or spongiose and elastic texture and continuity.

4. *The stems of sporigerent plants;* also the stems of fructugerent vegetative products, are of complex or miscellaneous structure.

DESCRIPTIO.

Primo. Of the Stem and constitutional structure of Graminæ plantæ otherwise of cespitose and geniculate grasses of the field; comprising cylindro-filumnate stem plants, or vegetative products having stems similar to the arundo, or reed; the shaft of the stem arising from the multi-fibro membranous root of the harvest seed, or cereal ovulum, sown and disseminated annually.

The material substance and fabric of the cylindro-filumnus, or arundo similar stem comprises and consists of several tubulate fibro-vegetal membranes, or hollow cylindrical portions of vegetative krebum having a fibro-ligneous and laminal or a fibro-succulent and laminal consistency; also a longitudinally tissued texture and continuity. Otherwise, the material substance and internal fabric of the crass-filumnate stem of grasses is congested of fibro-membranous, or of pytho-membranous vegetative krebrum, having a crassulate, or thick succulent texture and continuity.

Foliato. One long narrow leaf, or fallæal membranulum, longitudinally tissued and bractelate, is produced from, and encircles each geniculum, or junctura of the cylindro-filumnate stem of arundo-similar grasses.

Secundo. Of the stem and constitutional structure of Palmæ plantæ, or palma-frond trees and fruit trees.

The stem of Palma frond trees is cylindro-columnate, and comprises the elongated ligneo-columnate stem ofthe Cocos, Schunda, Kaunga, and Tadmor palmæ; and also comprises the crassulumnate stem of the Banana palma; and also comprises the stipulumnate and fibro-ligneous, or stipulumnate and fibro-membranous stems of the Aloe palma, Cycas palma, Sago palma, Ferna palma, Zanthorrœa palma.

The material substance and internal fabric of the Palma ligneo-columnus, or ligneous stem of palma frond trees, consists of elongated and fasciculated fibro-ligneous vegetal membranes congested together and having a continuous and condensed texture and tenacity. The fasciculated and condensed fibro-ligneous krebrum, constituting the palma ligneo-columnus, being disposed and arranged longitudinally and perpendicularly, from its basis unto its apex. Otherwise, the material substance and internal fabric of the crassulumnus, or thick succulent shaft of the Banana palma, consists of a congeries of fibro-membranous and stirpal portions of krebum cyclarly arranged and disposed exteriorly around its superficies and circumference by means of the successive production of fronds one above another. Otherwise the stem of the palma-frond tree is scaphiulumnate and hollow. Otherwise, the stem of the palma frond tree is pytho-ligneous, and its internal fabric is congested of fibro-membranous and pytho-membranous krebrum.

Radicatio. The fibro-membranous crassulumnus, or stem of the Banana palma arises from the placentum of a supra fossilineal bulboum; whereas the ligneo-columnate stem (for instance the Cocos palma) arises from the placentum, or supra fossilineal basis of a circular crebrescent radix. The material substance, diameter and circumference of its vegetant shaft

increase according to the expansion of its internal fibro-succulent krebrum; the ligneous stem of palma frond trees being excentro-crebrescent.

Foliatio. A cyclo-frondurium, or circular series of apo-terminal fronds emanates from the apex of the palm stem, and surrounds the spadi thekal and capitular, and dependent fructification buds, or kalyces enveloping its nuco-domal, bakko-domal, hespero-domal, and melo-domal fruits.

Tertio. Of the stem and constitutional structure of Timber trees of the forest, comprising branched and kortextal vegetative products, otherwise Arborescent plants, having ligneous and germinating stems.

The stem, or trunk of the timber tree of the forest is circumcrebrescent; for the circumference and diameter of its shaft, as well as the material substance of its internal fabric, or ligneous krebum increase annually; that is to say, the constitutional structure of the branched arborescent stem, or trunk, is an organical congeries of reticulated and fasciculated concentrical layers, consisting of a fibro-ligneous substance, or krebrum having a condensed and indurated texture and tenacity. The new annual layer of fibro-succulent membranous krebrum, constituting the cellular, follicular, and vesicular integument, denominated "vital induvreum," being disposed and arranged around the superficies and material substance of the preceding years' indurated layer of wood, but covered and concealed by its exterior organical circumtegument named kortex.

Radicatio. The roots of trees as well as their branches are ligneous and kortextal.

Foliatio. The frondula and leaves of timber trees of the forest are produced from the stem or trunk, and subsequently from the terminal boughs and twigs of its branches, or divergent limbula.

Quarto. Of the stem and constitutional structure of Fruit trees and Fruit plants. The stem of fructugerent vegetative products, otherwise of nuco-domal, bakko-domal, hespero-domal, and melo-domal fruit trees and fruit plants of the orchard, grove, and garden, are of complex, or miscellaneous structure. For instance, the pytho-ligneous stems of the baobab, elderberry, and celandine trees; the stems of the fig-tree and mango tree; the stem of the uva spina, or thorny gooseberry tree; the stem of the arbutus tree; the stem of the capriolar, procumbent, and proserpinant peponum vitilis, or gourd vine. It is evident, therefore, that fruit trees, and fruit plants are to be distinguished according to the specific and physical diversity, substance, and distinctive fasma of the fructum et fructovulum, constituting their fructamentum and fruit, as well as according to the diversified ways and modes of their gemmation, congemmation, and fructification.

Quinto. Of the stems and constitutionsl structure of Radikaliæ herbæ and Bulbo-stem herbæ; otherwise, of knobbo-placental, and di-placental vegetative products. The stem of the herba (whether its shaft arises from the placentum et placenta of an organical bulboum, constituting the supra-fossilineal basis, or round stirpal portion of the stem of the Bulbo stem herba: or whether its shaft arises from the placentum et placenta of a krementa1 and crebrescent radix, or organical root, constituting the subter-fossilineal basis ofthe Radikalia herba) is of miscellaneous structure, and diversified according to its different nature and distinct genus, or kind; as well as according to the different mode of propagation, or

reproduction of its offspring and peculiar species: that is to say, the fibro-membranous, or pytho-membranous krebum, constituting the material substance and internal fabric of the annual stem of the herba, is produced and arranged either longitudinally along, or spirally around the intermedial axis of its progressive motion, according as the vegetant motion and growth of its shaft be perpendicular and erect, turional and torquent, capriolar and tortuous, procumbent and proserpinant, or otherwise parasitical and supra-kortikal; or otherwise articulate and reptant along the diverse mineral bases of the land, and parallel with its superfices.

Foliatio. The fyleum et fylea, that is to say, the fallæal limbula, or membranula constituting the leaves of Bulbo stem herbæ, have a filo-tissued and longitudinal texture and continuity, or parallel consistence.

But contrariwise:—the folium et folia, that is to say, the fallæal limbula or membranula constituting the leaves of Radikaliæ herbæ, have a rete-tissued and reticulated texture, and also a divergent, radial, or diagonal consistence.

OF THE PRINCIPAL DIVERSITIES OF THE STEM OF THE RADIKALIA HERBA.

Primo. The annual stem of the radikalia herba is cylindro-filumnate, and its Scaphiulus, or mono-tubulate shaft is destitute of leaves—Ex., the cetra-scaphiulus, or mono-tubulate stem of the radikalia herba Leontodon.

Secundo, and otherwise. The stem of the raddikalia herba is Nodulate, or nod-annular; a leaf, or leaves being produced and emanant from each nodulum, or nod-annular junctura of its shaft—Ex., the nod-annular stem of the radikalia herba Iris. (Tuberro radice.)

Tertio, and otherwise. The stem of the radikalia herba has a wire like tenuitv, and its shaft is destitute of leaves—Ex., the Slendro-filumnate stem of the grass-leaved radikalia herba Statice (fibro radice), as also the slendro-filumnate stem of the radikalia herba Bellis. (Tuberro radice.)

Quarto, and otherwise. The stem of the radikalia herba is Umbyllumnate and destitute of leaves; spikulate, or sessinal and contiguous chorula of floramental kalyces, being arranged in mathemetical and sequental order, either alternately, or in parallel series along and around the terminal portion of the stem—Ex., the umbyluminate stem of the broad-leaved radikalia herba Plantago. (Fibro radice.)

Quinto and otherwise. The stem of the radikalia herba is Turional, or capriolar, and its torquent, or tortuous shaft winds spirally around the stems of other plants—Ex., the turional stem of the radikal vine herb Humulus turio vitilis. (Knobbo, raddice.) Otherwise its stem is supported by means of organical capriolar limbula, or limbulets. Ex., the capriolar limbula of the grape vine Uva vitis. The capriolar limbula of the pea vine, Pisum vitilis. The capriolar limbulets of the Gloriosa vitilis.

Sexto, and otherwise. The stem of the radikalia herba is Bracchiulate-fibro-membranous frondula, or frondulate and foliate branchlets being produced and divergent from its erect shaft—Ex., the bracchiulate stem of the radikalia herba Dahlia. (Glommo radice.)

Septimo, and otherwise. The stem of the radikalia herba is Thyrsiulate: flowers and leaves being produced and dependant from its erect shaft—Ex., the thyrsiulate stem of the plant named Alcea.

OF THE PRINCIPAL DIVERSITIES OF THE SHAFT OF THE BULBO-STEM HERBA.

Primo. The annual stem of the stirpal bulbo-stem herba is cylindro-filumnate, and its Scaphiulus, or mono-tubulate shaft is destitute of leaves. Ex., the diademio-scaphiulus, or mono-tubulate shaft of the bulbo-stem herba Cepa.

Secundo, and otherwise. The shaft of the bulbo stem herba is Nodulate, or nod-annular; a leaf, or leaves being produced and emanant from each nodiulum, or nod-annular junctura of the shaft. Ex., the nodulate, or nod-annular shaft of the bulbo-stem herba Tulipa.

Tertio, and otherwise. The fibro-membranous annual shaft of the bulbo-stem herba comprises and consists of two several and distinct portions: videlicet, the exterior fibro-laminal Scaphiulate portion, constituting the circumtegument entirely surrounding and enclosing the slendro-filumnate central portion produced from the placentum and basis of the plant, and supportingon its apex three numerical ida of the feminine gender, or passive principle of regenerative vitality. Ex., the conduplicate shaft of the bulbo-stem herba Crocus.

Quarto, and otherwise. The shaft of the bulbo stem herba is Umbyl-lumnate, and destitute of leaves; one chorulum, or several chorula of peri-vinkulate flor-amental kalyces being produced and arranged in mathematical and sequental series, or otherwise alternately and in parallel rows along, and around its terminal portion. Ex., the umbyl-lumnate shaft of the bulbo-stem herba Hyacinthus.

Quinto, and otherwise. The shaft of the bulbo-stem herba is Turional, and its peculiar progressive motion and constitutional structure is spiral. Ex., the turional stem of the spiro vegetant bulbo-stem herba Valisneria.

OF THE MATERIAL AND FLUID, OR CONDENSED AND LIQUID SUBSTANCES CONSTITUTING THE KREBRUM AND SAPPA OF VEGETATIVE PRODUCTS' OR PLANTS.

Vegetative products, or plants have not spontaneous, nor mechanical powers of locomotion and migration; but they derive their nourishment and increase and material substance from the diverse fossil soils and rudimental layers of the garden, field, grove, orchard, meadow, and wilderness by means of their fibro-membranous roots, or organical radical limbula et membranula.

The aqueous sappa, or succulent vegetative juice derived from the various mineral bases of the terraqueous superficies, becomes the aliment of the plant, or vegetative product, during the season of its production and increase, or procreation; and circulating throughout its stem divergent branches and several terminal limbula, is converted by mysterious internal elaboration, and successive chymical processes, into different substances constituting its external and internal krebrum; and also constituting the krebrum and material fabric of the lobal and di-lobal fruges, or cereal ovula and harvest seeds of the grass, herb, tree, and ab-ovo natal vegetative product of the field and wilderness; as well as constituting the fructum et fruct-ovulum, or edible fruit and melobidium of the fruit tree and fruit plant and herb and ab ovo natal vegetative product of the garden, grove, and orchard.

OF THE KREBRUM.

Comprising the coagulated and condensed, or material substance of vegetative products.

The different sorts of krebrum, or material substance of vegetative products and plants are distinguished according to the following method.

1. Pythonidium, comprising	Medullidium et Suberidium.	or soft elastic medullary pith, constituting the internal central krebrum of the vegetative product, or plant.
		or soft elastic suberal cork, constituting the external kortikal krebrum of the tree, or arborescent plant.
2. Viscidium, comprising	Gumidium et Resinidium.	or internal coagulated and gluto-membranous krebrum, soluble in water.
		or internal coagulated and unctuous krebrum, soluble in oil, or alcohol.
3. Fibridium, comprising	Lana-fibridium et Linea-fibridium	or cotton fibre, constituting the interior fibrous krebrum, and crinulate portion of the fruxamentum of the plant Gossypium.
		or fibro-membranous krebrum, constituting the rind, or exterior tegumental portion of the stem of the plant Cannabis.
4. Timber, comprising	Lignum et Kortikum.	or condensed and indurated krebrum, constituting the wood and internal fabric of the tree and fruit tree.
		or tough coriaceous krebrum, constituting the kortex and bark, or external fabric of the tree and fruit tree.
5. Amylidium, comprising	Gluto-amylum et Radix amylum.	or gluto-membranous and starch-like krebrum, produced from the stem of the Sago palma, and rendered edible by art.
		or glommo-membranous and succulent krebrum, constituting the material substance of the potato-root, rendered amylo-farinaceous by art.

The Gux — Frum-amylum — or sicco-membranous krebum, constituting the material substance of the lobal and di-lobal ovula of frumental and podamental plants, as

6. Melobidium, comprehends

- The frux et frugi-melobidium of the grass, herb, tree, and ab-ovo-natal vegetative product.
  - comprising
    - Frum-amylum et Visco-amylum.
      - or sicco-membranous krebum, constituting the material substance of the lobal and di-lobal ovula of frumental and podamental plants, as well as of tamunamental palm trees.
      - or viseo-membranous krebrum, constituting the material substance of the lobal and di-lobal fruct-ovula of nuc-amental, castan-amental and putamun-amental fruit trees.
    - Cydo-melobidium et Pepo-melobidium.
      - or glomero-membranous succulent krebrum constituting the material substance, or fructum enveloping the ovula of pome-amental and cydon-amental kinds of fruit trees.
      - or ob-glomero membranous succulent krebrum constituting the material substance, or fructum, enveloping the ovula of pepon-amental and cucurbit-amental kinds of fruit trees and fruit plants.
- The fructum et fructu-melobidium of the fruit tree and fruit plant.
  - comprising
    - Fico-melobidium et Citro-melobidium.
      - or fibro-membranous pellikalium, and interior saccharine pulp, constituting the fructum enclosing the ovula of papaya-mental and fic-amental fruit trees.
      - or fibro-membranous aromal pellikalium, and interior succulent pulp, constituting the fructum surrounding and enveloping the ovula of citron-amental kinds of fruit trees.
    - Moro-melobidium et Uva-melobidium et Aloova-melobidium
      - or fibro-membranous succulent pulp and pellikalium constituting the separ-perifereal fructum, separately enveloping, or supporting the ovula of mor-amental kinds of fruit trees and fruit plants.
      - or fibro-membranous pellikalium, and saccharine pulp, constituting the round or oval fructum, surrounding and enveloping the ovula of uvramental kinds of fruit trees.
      - or fibro-membranous pellikalium and saccharine pulp, constituting the drupial fructum enveloping the di-partite ovulum of tamun-amental and alooval kinds of fruit trees.
      - or fibro-membranous pellikalium and succulent pulp constituting the fructum enveloping the di-lobal ovulum of putamun-amental and and alooval kinds of fruit trees.

7. Kalxonum, comprising
   - Zelonidium et Silexidium.
     - or hard calculous krebrum, constituting the shell of the nut, cocoa-nut, walnut, and other nucamental kinds of fruit trees.
     - or brittle siliceous krebrum, constituting the fibro-membranous rind, or exterior tegumental substance of the stem of arundo-similar kinds of vegetative products.

OF THE SAPPA.

Comprising the liquid and fluid substances of vegetative products, or plants.

The fluid substance of the vegetative products of nature, denominated sappa, comprehends and comprises the acid, the oily, the unctuous, the bitter, the astringent, as well as the dull and insipid succulenta, or liquid juices of the grass, herb, tree, fruit tree, and fruit plant, or ab-ovo-natal vegetative product.

The several Acetidia, or acid substances are distinguished and specified and arranged methodically in the following synoptical table; and also the several substances having opposite virtues and essential qualities. Properly defined, Acetidia (plural of acetidium, an acid substance) are those vegetal substances, as well liquid and fluid, as material and condensed, having an acid, pungent, or mordent taste; otherwise having stimulant and penetrating qualities.

1. *Acida et Acerbidia, i.e.*, Substances having a sharp, or sour taste, and pungent flavour—Ex., vinegar, sour beer, sour milk, the succulent stem and leaves of the radikalia herba Rumex: also the acid uvamental fruit of the Berberis fruit tree.

2. *Saccharidia et Mitidia, i.e.*, Substances having a sweet taste and pleasant flavour—Ex., honey, sugar, the succulent stem of the gramineal and edible plant Saccharum: also the succulenta, or liquid juices of ripe fruits.

3. *Salidia, i.e.*, Saline substances having a salt, or saline taste, and pungent flavour—Ex., rock salt, the saline waters of the ocean.

4. *Aromatidia et Fervida, i.e.*, Substances having an aromal, or spicy taste, and fervent flavor—Ex., the aromal bark of the ceylon laurel tree. The spicy mordent fervent juice of the ovula and vegetal folliculum constituting the non-apertural frux-amentum of the Peru capsicum plant: also the spicy ovula of the pepper vine: likewise, the spicy ovula of the garden plants—Cardamum, Apium, Carum, Anacardium.

5. *Odoridia et Perfumia, i.e.*, Substances having either a fragrant, or deleterious odour and scent—Ex., the odor and perfume of the flowers, fruits, roots, and viscid substances of various kinds of plants, or vegetative products.

1. *Olidia et Sebatidia, i.e.*, Substances having an oily, sapid, unctuous, or saponaceous taste and greasy flavour—Ex., oleum, or oil, milk, butter, fat, soap, pitch, or the resinidium obtained from the stem and branches of the pine tree: also camphor, or the semi-concrete and unctuous resinidium obtained from the laurel tree.

2. *Amaratidia et Asperidia, i.e.*, Substances having a bitter taste and rough flavor—Ex., gall, nut-gall, bark; the frondulate leaves, and clausural fruxamentum, or pod of the Syrian cassia tree; also the aromal ovula of the turional vine herb, Humulus (knobbo radice).

3. *Hebatidia, i.e.*, Substances having a dull taste and insipid flavor—Ex., farina, gumidia, viz., opium, or the gumidium obtained from the succulent rind of the di-fabbralate, or operculate frux-amentum of the plant Papaver.

4. *Tetridia et Torvida, i.e.*, Substances having a harsh, astringent, austere, corrosive, acrid, nauseous taste and flavour—Ex., the concrete, mineral, acetidium vitriol: also the gumidium, or coagulated viscid sap of the plant Aloe.

5. *Tingidia et Coloridia, i.e.*, Substances having and imparting a dye, or color, either temporary, or permanent—Ex., the succulent juice or sappa of the logwood tree, the sappa of the indigo plant.

OF THE SEVERAL CONSTITUTIVE PARTS, PORTIONS, LIMBS, MEMBRA, MEMBRULA, AND MEMBRANULA OF VEGETATIVE PRODUCTS, OR PLANTS.

The several parts, portions, limbs, membra, membrula, and membranula constituting the organical structure of the grass, herb, tree, fruit-tree, and fruit-plant, or ab ovo natal vegetative product, are—

1. *The Cereal Ovula*, harvest seeds, or multiform Vegetative eggs—constituting the primary organical membra of the vegetative state of nature: and containing the germala of vitality and duality, as well as the axes of vegetative motion, increase, and propagation.

2. *The Placentum*, comprehending and comprising the vegetal womb; also the basis of the stem, aud the place of its germination, increase, and multiplication; as well as comprising the place of the germination of the organical radikal limbula et membranula constituting the radix, or kremental and crebrescent root of the vegetative product.

3. *The Radix*, or kremental and crebrescent root and rootlets (comprehending the subter-fossilineal and organical radikal parts and portions of the vegetative product, or plant) comprises and consists of several fibro-membranous, or fibro-ligneous limbs, limbula, and membranula proceeding from the placentum, and divergent from the basis of the plant, videlicet—

Primo. The fibro-membranous roots, or radikal limbula et membranula of Gramineal plants, or cespitose grasses of the field; also the fibro-membranous, or fibro-ligneous roots of Palmæ plantæ, or palma frond trees and fruit trees.

Secundo, and otherwise. The radix, or organical raditurium of crebrescent roots comprises and consists of several ligneous, or fibro-ligneous radikal limbs and limbula divergent from the placentum and basis of the plant. Ex., the ligneous roots, or fibro-ligneous radikal limbs and limbula of most trees and fruit trees.

Tertio, and otherwise. The kremental and crebrescent radix consists of only one organical limb—Ex., the glommal radix, or globbo-membranous root of the plant named Brassica; (populatim the turnip) alio the kaudexal radix, or cylindro-membranous root of the plants named Apium, Cichoreum, Daucus; also the knobboum, or multi-germinant, knobboal root of the plant named Humulus; also the tuberroum, or multi-germ tuberral root of the plant named Iris.

Quarto, and otherwise. The kremental and crebrescent radix, or organical root comprises and consists of several glommal membra, or knobboal radikal portions distinct and separate from the placentum and basis of the parent plant; but connected by means of radical petiola, or fibro-membranous root stalks—Ex., the bi-glommo radix, or double root of the plant named Ophrys—Ex., the groopio-glommal radix, or groopial root of the plant named Anemone—Ex., the kyr-fasciate radix, or monc-fasciate root of the plant Ophrys—Ex., the di-groopial radix, or plura fasciate root of the plant named Saxifraga.

Ex., the multi-glommal et di-placental radix; comprising the several placental membra, or glommal portions of the radix of the multiger-

minant radikal herb named Helianthus. (knobbo radice.) Also the multi-glommal et di-placental radix, comprising the several placental membra, or glommal portions of the radix of the multi-germinant and radikal herb named Solanum.

4. *The Stem*, comprising and constituting the unbyllikal shaft, or organical jugum and medium of flor amental gemmation, congemmation, and fructification; the Stem is either ligneous, crebrescent, and permament; otherwise the Stem is renewed and multiplied annually.

Primo. From the seminal root of the harvest seed, or cereal ovulum of the annual plant sown and disseminated annually.

Secundo. From the bud germinant from the placentum of the supra-fossilineal bulboum of the stirpal bulbo stem herba.

Tertio. From the bud germinant from the placentum of the subter-fossilineal radix of the knobboal radical herba.

Quarto. From the bud germinant from the placentum of the timber tree of the forest, after its original trunk has been felled by means of woodman's craft.

5. *The Sappa*, or aqueous sap; otherwise the various succulenta, or liquid juices constituting the fluid aliment of the plant, or vegetative product.

The sap circulates throughout the stem and its divergent branches, fronds, frondula, verdant leaves, and umbyllinkulate parts and portions; also throughout the sporamental as well as the frumental and flor amental kalyces et kunabula containing the embryo ovula of the plant, or vegetative product.

6. *The Bud, or Buds*,—comprising and constituting several distinct organical membrula of vegetative propagation, increase and multiplication; and comprehending the buds of sporigerent plants; as well as the buds of frugiferent and fructugerent vegetative products.

7. *The Branches*, boughs and twigs, fronds and frondula, petiola and stirpetiola, gemmbinkula, bulboa, bulbula, and bulbulets, bractela, spines, thorns, prickles, and minute pappuli, comprising and constituting the several limbs, limbula, and membranula divergent from the shaft and axiliar portions of the stem; otherwise divergent from the base and apex of the stem; otherwise produced from the exterior, or interior surface of the plant.

8. *The Verdant Leaves*,—comprising and constituting the several filo-tissued and rete-tissued membranula divergent and dependant separately from the root, stem, and branches—otherwise constituting the membrula, or organical portions of the Fronds, and Frondula.

9. *The Krebrum*, comprehending the coagulated and condensed substances of the vegetative products of nature; otherwise comprehending the material substance of the grass, herb, tree, fruit tree, and fruit plant, or ab-ovo natal vegetative product.

10. *The Kortex*, comprehending the exterior organical circumtegument entirely covering the wood, or ligneous substance and internal fabric of the tree and fruit tree; and comprising, primo, the "vital induvreum;" secundo, the liber; tertio, the subereum, or suberind.

11. *The Kalyx*, comprehending, comprising, and consisting of the

annual axenta, basilia, cymarula, amenta, vestamenta, involucra, et fructa, supporting, encircling, surrounding, enclosing, containing, and enveloping the embryo ovula of the Grass, Herb, Tree, Fruit tree, Fruit plant, or Ab ovo natal vegetative product during the process of gemmation, congemmation, regeneration, and fructification.

OF THE SEVERAL KINDS OF STEM.

The several kinds of Stem, either permanent, or renewed annually, are

1. *The Cylindro-columnus;* constituting the cylindro-columnate stem of Palm trees, or Palma frond vegetative products, and comprising—

Primo. The palma ligneo-columnus; or elongated cylindrical stem of the Cocos palma.

Secundo. The Palma crassulumnus; or short cylindrical stem of the Banana palma.

Tertio. The Palma scaphiulumnus; or hollow cylindrical stem of the Papaya palma.

Quarto. The Palma stipulumnus; comprising the fibro-membranous, or fibro-ligneous stems of the Aloe, Cycas, Sago, Ferna, Zanthorrœa palmæ.

2. *The Truncus;* or branched timber stem of the Arborescent tree comprising,

Primo, the Ligneo-truncus—Ex., the Robur-truncus, the Pino-truncus.

Secundo. The Pytho-ligneo-truncus—Ex., the Pytho-ligneous stems of the Elder-berry and Baobab fruit trees.

3. *The Bineolus;* or Vine stem of vine plants, or vineal vegetative products. The Bineolus comprises, the Vitis, the Vitilis, the Vitex, the Viticulus—viz.:

Primo. The Vitis, or fibro-ligneous, and pytho-ligneous vine stem—Ex., Uva vitis, the grape vine; Hedera vitis, the ivy vine; Viscum vitis, the mistletoe vine.

Secundo. The Vitilis, or fibro-membranous vine stem—Ex., Pisum vitilis, the pea vine, Peponum vitilis, the gourd vine, Galium vitilis, the cyclo-germinant cleaver vine.

Tertio. The Vitex, or multi-stirpetiolate and raditurial vine stem—Ex., Vinca vitex, the periwinkle vine; Rubus-vitex, the raspberry vine, the blackberry vine.

Quarto. The Viticulus, or fibro-membranous and repto-articulate vine stem—Ex., Fragaria viticulus, the strawberry vine; Rana viticulus, the butter-cup vine, or crowfoot vine; Cuscuta viticulus, the dodder vine.

4. *The Caulis,* or bracchiulate erect stem of several kinds of herba—Ex., the Bracchiulate erect stem of the radikalia herba, Dahlia—Ex., the Bracchiulate erect stems of the Radikaliæ herbæ, Pæonia and Urtica.

5. *The Thyrsiulus,* or erect flower and leaf stem without branches—Ex., the Thyrsiulate stem of Lysimachia vulgaris.

THE CYLINDRO-FILUMNATE KIND OF STEM SIMPLEX.

Comprising stems destitute of leaves, nodes, genicula, or junctura; and the shaft of the stem supporting a Coronal, Capitular, or Apoterminal kalyx.

6. *The Scaphiulus*, or hollow monotubulate stem—Ex., the Cetra-scaphiulus, or hollow monotubulate stem of the Radikalia herba Leontodon (kaudexo-radice)—Ex., the Diodemo-scaphiulus, or hollow mono-tubulate shaft of the Bulbo stem herba, Cepa (populatim, Onion).

7. *The Scapulus*, or crass-cylindrical stem—Ex., the Corona-scapulus, or crass-cylindrical stem of the herba Primula—Ex., the Tyaro-scapulus, or crass-cylindrical stem of the herba Dodecatheon—Ex., the Pytho-scapulus, or pytho-scapal stem of the herba, Juncus.

8. *The Slendro-filumnus*, or slender wire-like stem, comprising

Primo. The Cetra-filumnus, or slendro-filumnate stem of the Radikalia herba, Bellis.

Secundo. The Diademo-filumnus, or slendro-filumnate stem of the grass-leaved herba, Statice.

Tertio. The Parvi-filumnus, or parvi-fabbralate stem of several kinds of Cespifoliate Oprinæ plantæ.

9. *The Stipulus*, or short stem of Fungiæ plantæ, and Frondo-fernæ plantæ, comprising,

Primo. The Scaphio-stipulus, or hollow monotubulate stem of Agaricus aurantia.

Secundo. The Crass-stipulus, or thick stem of Agaricus campestris (populatim, Mushroom).

Tertio. The Frondo-stipulus, or tough fibrous stem of Pteris aquilina.

THE CYLINDRO-FILUMNATE KIND OF STEM COMPLEX.

Comprising Geniculate, or Umbyllumnate, or Nod-annular stems ; and the shaft of the stem supporting a Capitular, or a Spikulate, or a Peri-vinkulate and choro-sequental series of Floramenta, or Frumenta.

10. *The Culmulus ;* comprising the geniculate and tubo-filumnate stem, as well as the geniculate and pytho-filumnate stem of Graminiæ plantæ, or Arundo similar grasses—Ex., the Tubo-culmulus, or geniculate stem of the gramineal plants, Triticum, Secale, Poa, Hordeum, Avena—Ex., the Pytho-culmulus, Crass culmulus, or geniculate stem of the gramineal plants, Saccharum, Zea.

11. *The Nodulus ;* comprising the nodulate, or nod-annular stem of several kinds of plants—Ex., the Nodulus, or nod-annular stem of the Radikalia herba Iris (tuberro-radice)—Ex., the Nodulate stem of the bulbo-stem herba Tulipa.

12. *The Umbyllumnus*, supporting a peri-vinkulate series of kalyces, and comprising—

Primo. The Crass-umbyllumnus, or thick umbyllumnate stem of the Bulbo stem herba, Hyacinthus.

Secundo. The Slendro-umbyllumnus, or slender umbyllumnate stem of the fibro-radikal herba, Plantago.

13. *The Fructu-Umbyllumnus*, or umbyllumnate stem of the plant named Bromelia (populatim, Pine-apple), the shaft of the stem supporting an apo-terminal pome-amental fruit.

OF THE SEVERAL KINDS OF BUD.

There are twelve kinds of Bud : each kind of bud comprehending, comprising, and constituting distinct and separate organical membrula of vegetative propagation, increase, and multiplication.

1. *The Seed bud;* comprising the korkulum, and incipient rootlet proceeding from the cereal Ovulum, harvest seed, or multiform vegetative egg, annually planted and disseminated in the fossil soils and rudimental layers of the garden, field, orchard, grove, meadow, and wilderness.

2. *The Germ bud;* comprising the Germ bud proceeding from the placentum of the supra-fossilineal Bulboum of the Bulbo stem herba ; as well as comprising the Germ bud proceeding from the placentum of the subter-fossilineal Radix of the Radikalia herba.

3. *The Leaf bud;* comprising the Leaf bud and Frond bud, proceeding from the inner rind, or interior membranous integument of the Herb and Grass, and Ab ovo natal plant ; also comprising the Leaf bud and Frond bud proceeding from the "vital induvreum" enveloping the ligneous fabric of the Tree and Fruit tree ; as well as comprising the Leaf bud and Frond bud, proceeding from the germinant placentum of the Arborescent plant after its original stem has been felled by means of woodman's craft.

4. *The Kum bud;* comprising the several Kum buds, or fructification buds of Sporigerent plants, or Sporamental kinds of vegetative products.

5. *The Gemm bud;* comprehending and comprising the several Gemm buds, or fructification buds of Frugiferent and Fructugerent vegetative products—viz.,

Primo. The Gemmium, or Mono-sexual gemm bud ; containing 1 Ikonum, or 1 Ikum of the Masculine gender ; otherwise containing many Ikona, or many Ika, varying in number from 1 to more than 100.

Secundo. The Gemma, or Mono-sexual gemm bud ; containing 1 Idolum, or 1 Idum of the Feminine gender ; otherwise containing many Idola, or many Ida, varying in number from 1 to more than 100.

Tertio. The Gemmos, or Hermaphral gemm bud ; containing 1 Ikonum and 1 Idolum, syn-domal together ; or 1 Ikum and 1 Idum syn-domal together ; otherwise containing many Ikona and Idola ; or many Ika and Ida syn-domal together, and each varying in number from 1 to 100.

6. *The Gemmoum*, or Complex gemm bud ; containing many Gemmora and Gemmæ ; otherwise containing many Gemmia and Gemmæ, produced and arranged in verticilliate series—*i.e.*, cetra-cyclarly and concentrically within the same Cetral kalyx.

Primo. The Gemmia ; comprising several centro-cyclar gemletts and Ikona, or numerical indices of the Masculine gender.

Secundo. The Gemmæ ; comprising several circum-cyclar gemmlets and Idola, or numerical indices of the Feminine gender.

Tertio. The Gemmora, or Hermaphral gemmlets ; comprising several centro-cyclar and circum-cyclar, as well as several omnino cetra-cyclar and di cetra-cyclar gemmlets containing both Ikona and Idola.

Gemmletts are the several gemm buds congemnate within the same kalyx.

7. *The Basilikoum*, or Complex et multiplex gemm bud ; containing several gemletts, or lesser gemm buds produced within the same apo-basiliate kalyx, or receptaculum. The gemmlets of the Basilikoum are either Groopial and sessinal upon the basilium of the kalyx :

Otherwise, the gemm buds of the Basilikoum are Terminal and severally supported by synterminal stalklets divergent and radiate from the basilium of the kalyx—Ex., the Complex gemm buds of Geranium, and Primula. The Basilikoum comprises—

Primo. The Tyaral basilikoum or Apo-terminal basilikoum produced from the apex of the cylindro-filumnate stems of Radikaliæ herbæ, and Bulbo-stem herbæ.

Secundo. The Chorythmal basilikoum, or rami-terminal and bracchiulate, as well as axiliar basilikoum produced from the axiliar and terminal umbyllinkulate portions of the branches of arborescent plants, and cauline plants, and vineal plants.

The Hermaphral and Mono sexual gemm buds of the Basilikoum are distinguished as—

Primo. The Tyarium ; *Secundo.* The Tyara ; *Tertio.* The Tyaros.

Primo. The Rythmium ; *Secundo.* The Rythma ; *Tertio.* The Rythmos.

8. *The Spikoum and Panikoum ;* otherwise, the paleal fructification bud of Graminiæ plantæ, comprising the several choro-sessinal and contiguous ; otherwise comprising the several choro-vinkulate frumenta or glum-amenta produced one above another in paral, or alternate series along the sides of a slender fibrous axentum, or umbyllinkulate stalklet. The frubinkulum et ovula, constituting the terminal portion, or portions of the culmulus, is denominated Spikulum, or Panikulum.

The Hermaphral and Monosexual gemm buds of the Spikoum are distinguished as—

Primo. The Spicum ; *Secundo.* The Spica ; *Tertio.* The Spicos.

9. *The Diademoum ;* or Complex et multiplex gemm bud ; containing several gemm buds produced within the same Pharetral kalyx, or receptaculum. The gemmlets of the Diademoum are disposed and arranged in cyclo-tural series upon the rotund and enlarged basilium of the kalyx ; otherwise, the gemlets of the Diademoum are arranged in pyro-concyclar series around the elongated and diamedial basilium of the kalyx.

The Hermaphral and Mono-sequal gemm buds of the Diademoum are distinguished as—

Primo. The Thyrsium, or mas Diademoum.

Secundo. The Thyrsa, or fem Diademoum.

Tertio. The Thyrsos, or hermaphral Diademoum.

Quarto. The Strobilum, or meso-hermaphral Diademoum.

10. *The Kunabulum*, or Complex et multiplex gemm bud ; containing several gemmlets or lesser gemm buds produced within the same Squamal, or Keleal kalyx.

The several gemm buds of the Kunabulum are disposed and arranged spirally ; otherwise arranged in concyclar series ; otherwise arranged in choral and sequental series along and around the elongated, or intemedial, or central basilium of the Kalyx. The Kunabulum comprises,

1. The Kalyk-konulum. 2. The Kalyk-keleum. 3. The Kalyk-orbulum. 4. The Kalyk-glumulum. 5. The Kalyk-tegulium. 6. The Kalyk-testulum. The gemm buds of the Kalyk-konulum, or squamal kalyx are interior gemm buds, disposed and arranged spirally around the intermedial basilium of the kalyx, and they are bi-gemnate or mono-gemnate—Ex., Pinus, Cupressus.

The gemm buds of the Kalyk-keleum, or keleal kalyx are exterior gemm buds disposed and arranged around the elongated basilium of the kalyx in concyclar, otherwise in choro-sequental series.

The gemm buds of the Kalyk-orbulum, or orbicular kalyx are perifereal gemm buds disposed and arranged irradially and divergently from the central basilium of the kalyx—Ex., Platanus.

The Hermaphral and Monosexual gemmlets, or lesser gemm buds of the kunabulum are distinguished as

Primo, the Kunium ; *secundo*, the Kuna ; *tertio*, the Kunos.

11. *The Spath-thekoum ;* or Complex et multiplex gemm bud ; constituting the Involucral fructification bud of several kinds of Herba.

The gemm buds enveloped by the Spath-thekoum of the herba are either Capitular and mono gemm—Ex., Galanthus ; or Capitular and tyaral—Ex., Pancratium. Otherwise the several flor-amenta of the spath-thekoum are arranged around the terminal portion of the umbyllumnate stem of the herba—Ex., Ophrys.

12. *The Spadi*-thekoum ; or Complex et multiplex gemm bud, constituting the Involucral fructification bud of Palma frond trees and fruit trees.

The several floramenta of the Palma spadi-thekoum are chorovinkulate, and they are disposed and arranged in distinct gyro-cyclar series around the elongated basilium of the Spadix—Ex., the Banana palma—otherwise the floramenta are dependent from the terminal portions of the divergent stalklets of the Spadix—Ex., the Cocos palma.

OF THE BRANCHES.

Boughs, and twigs, fronds and frondula, leaves and fimbrula, petiola and crass-stirpetiola, gemm-binkula, bractela, bulboa, bulbula, and bulbulets, spines, thorns, prickles, and minute pappuli ; comprising and constituting the several ligneous, or fibro-membranous limbs, limbula, and membranula divergent from the stem, kortex, and kortikulum ; or otherwise divergent from the base, shaft, and apex of the stem, viz.—

1. *The Ligneous Branches* of timber trees of the forest, and of arborescent fruit trees ; comprising the ligneous branches, boughs, twigs, and deciduous frondula, leaves, and fimbrula of the ash tree, larch tree, chesnut tree, rose tree, elderberry fruit tree, and jessamine vine. Also the ligneous branches, boughs, twigs, and deciduous leaves of the oak tree, poplar tree, apple tree, and grape vine ; as well as comprising the ligneous branches, boughs, and evergreen frondula, leaves and fimbrula of the yew tree, fir tree, holly tree, laurel tree, myrtle tree, and ivy vine.

2. *The Fibro-membranous Fronds;* comprising—

Primo. The Palmatæ frondes ; or apo-terminal fronds of palm trees.

Secundo. The Stirpetiolatæ frondes ; or raditurial fronds of several sporigerent and gemmiferent kinds of plants destitute of a stem.

Tertio. The Crass-stirpetiolatæ frondes ; or crass-stirpetiolate fronds of several kinds of Kaktæ plantæ having thick stipulate limbs ; otherwise having several raditurial fallæal membrula destitute of a stem.

3. *The Fibromembranous Frondula;* comprising—

Primo. The Arborinal et Omnino ramal frondula of the Kalykkonul amental kinds of trees.

Secundo. The Arborinal et Rami-terninal frondula of the Tree and Fruit tree.

Tertio. The Bracchiulate et Foliate frondula of the Herb, and Ab ovo natal vegetative product.

Quarto. The Bracchiulate et Fimbrulate frondula of the Herb and Ab ovo natal vegetative product.

Quinto. The Radikal, et Stirpal frondula ; produced from the radix, or root of several kinds of vegetative products.

4. *The Leaves and Fimbrula;* comprising the several filo-tissued and rete-tissued falleal membranula divergent and dependent separately from the shaft and branches of the stem ; otherwise constituting the membrula, or several equal and similar organical portions of the frond, and frondulum ; otherwise constituting the several stirpal fallæal membrula, et membranula produced and emanant from the radix, or root, and divergent from the basis of the plant, or vegetative product.

5. *The Turiona and Capriola;* comprising the tendrils and curled limbula of vines, or vineal plants growing spirally, or tortuously ; and winding around, or clinging to other plants for support.

6 *The Spines, the thorns, the prickles, the minute pappuli;* comprising the several fibro-ligneous and sharp-pointed indurated limbula produced and divergent from the wood and interior ligneous substance of the tree and fruit tree ; or otherwise produced from the exterior coriaceous substance of the kortex and kortikulum ; as well as comprising the numerous crinulate, cottony, or tomentose limbula, produced from and often covering the entire surface of the fibro-membranous vegetative product.

7. *The Petiolum et Petiola;* comprehending the fibro-membranous stalks and stalklets, or limbula divergent from the stem ; and supporting the pagænal and fimbrulate portions of the fronds, frondula, and leaves, and comprising—

Primo. The Frondinkulum et Frondinkula ; or frond stalks supporting the several fronds and frondula.

Secundo. The Fylinkulum et Fylinkula ; or leaf stalks supporting the filro-tissued leaves, or longitudinally tissued fallæal membranula.

Tertio. The Folinkulum et Folinkula ; or leaf stalks supporting the rete-tissued leaves, or reticulated fallæal membranula.

8. *The Gemmbinkula;* comprehending the several umbyllinkulate stalks and stalklets dependent from the annular, nodular, axiliar, and terminal portion of the stem and its divergent branches, and comprising—

Primo. The Frubinkulum et Frubinkula, or frugiferent stalk and stalklets supporting the fruges and fruxamental kalyces of the Grass, Herb, Tree, and Ab ovo natal vegetative product.

Secundo. The Fructinkulum et Fructinkula, or fructugerent stalk and stalklets supporting the fructovula and fructamenta; or Fructamental kalyces of Fruit trees and Fruit plants.

9. *The Bulboa, Bulbula and Bulbulets;* comprising the organical and stirpal portion, or portions of the stem of the Bulbo stem herba, as well as the basis of its shaft, or shafts. Otherwise comprising several axiliar and organical membrula produced from between the stem and nodulate junctura of its divergent leaves, as exemplified in the Bulbiferent kinds of plants of Lilia genus and species. Otherwise comprising several axental and organical membrula produced from the apex of the stem of the Bulbo stem herba—Ex., the Bulbiferent kinds of plants of Allium genus and species. The Bulboum comprises—

Primo. The Bulboum globbosum; its material substance and globbo membranous fabric consisting of a succulent, dense and undivided krebrum, or melobidium—Ex., the Bulboum globbosum of the herb named Tulipa.

Secundo. The Bulboum squamosum; the material substance and fabric of the squamose bulb comprising and consisting of several fibro-laminal and separate portions of succulent membranous krebrum lapping over one beyond another in regular alternate and circular series—Ex., the Bulboum squamosum of the herb named Lilia.

Tertio. The Bulboum complicatum; the material substance and fabric of the complicate bulb comprising and consisting of an organical congeries of the fibro-laminal portions of its succulent krebrum fitting closely and completely one over another—Ex., the Bulboum complicatum of the plant named Cepa—(populatim the Onion).

OF THE KORTEX.

The several constitutive parts and portions of the Kortex, or exterior organical circumtegument entirely covering the wood and interior fabric of the Tree and Fruit tree, or Arborescent plant are—

1. *The "Vital induvreum;"* comprising the fibro-vascular, fibro-follicular, and fibro-vesicular vegetal web, or reticulated layer of fibro-succulent krebrum, annually produced between the Lignum and Kortex, and covering the preceding years' indurated layer of wood.

2. *The Liber;* comprising the fibro-membranous inner rind, integument, and interior organical layer of the Kortex.

3. *The Subereum and Suberind,* comprising the outer tegument and exterior organical layer of the Kortex—otherwise, the bark, cork, and outer rind of the Trunk and its divergant branches.

OF THE BRACTELA.

The Bractela, are the organical fibro-laminal membranes, or scaphiulate membrula produced from and surrounding, or clasping the placental and axiliar portions of several kinds of plants, and thereby

supporting their flower stalks, frond stalks, and leaf stalks, as well as their stems, and radical limbula—Ex., the Scaphiulate and placental Bractela; surrounding and supporting the flower stem and radical fallæal limbula of plants of Narcissus genus.

Ex., the Axiliar Bractela; produced from, clasping, and supporting the axiliar portions of the plants named Trifolium, Hedysarum, Medicago, Fragaria, Ranunculus, Heracleum, Anethun, Humulus—

Ex., the Axiliar Bractela partially supporting the floramenta of the plant named Tilia—

Otherwise the Bractela constitute the fibro-laminal membranous portions, or alæat membrula of the frux-amentum of several kinds of plants—Ex., the Annular alæate Bractelum, surrounding, and encompassing each ovulum of the plant named Ulmus.

Ex., the Terminal alæat Bractelum, constituting the limbulate portion of the frux-amentum of each ovulum of plants of Pinus genus, Fraxinus genus, Acer genus. The fibro-laminal membrane connecting the Stypia, or cylindrical portions of the Ikona of plants of Geranium genus may be denominated a Bractelum.

The Bractela are separate and distinct membrula from the several leaves produced beneath and contiguous to the gemm buds; for instance the leaves contiguous to the gemm buds of the plant named Lonicera.

OF THE FRONDS AND FRONDULA LEAVES AND FIMBRULA.

FRONDES VIRIDÆ ET VESCÆ.

Comprehending and comprising the several fibro-membranous limbs, limbula, membrula, and membranula produced and emanant from the apex of the stem; otherwise produced and dependent from the shaft and divergent branches of the stem; otherwise produced and emanant from the radix, or root, and divergent from the basis of the plant, or vegetative product.

OF THE VERDANT FRONDS.

Fronds are distinguished as—1. Palmatæ frondes; 2. Stirpetiolatæ frondes; 3. Crass-stirpetiolatæ frondes.

1. OF THE PALMATÆ FRONDES, OR APO-TERMINAL FRONDS.

The Palmatæ frondes, or Apo-terminal fronds of Palm trees, or palmæal vegetative products; are produced and emanant from the apex of the Ligneo-columnate stem of the palm-tree; otherwise produced and emanent from the apex of the Pytho-ligneo-columnate stem of the palm tree; otherwise produced and emanent from the apex of the Scaphiulumnate stem of the palm tree: otherwise produced and emanent from the apex of the Stipulumnate stem of the palm tree.

AS TO STRUCTURE AND DISTINCTIVE FASMA.

Primo. The Palma frond is Mono-pagænal, or Mono-fyleate; and comprises and consists of only one large filo-tissued leaf, or fallæal

membrulum, dipartite by the terminal portion of its frondinkulum, or frondstalk—Ex., the Mono-fyleate frond of the Banana palma.

Secundo, and otherwise. The Palma frond is Mono-pagænal or Mono-foliate ; and comprises and consists of only one large rete-tissued leaf, or fallæal membrulum di-tri-quinque partite by the intermedial fibrulets of its frondinkulum, or frond stalk—Ex., the Mono-foliate frond of the Papaya palma.

Tertio, and otherwise. The Palma frond is Multi-limbulate and Palminal—and comprises and consists of several Digi-radial (or cyclo-radial, or centro-radial) and divergent fallæal membrula arranged around the terminal portion of its frondinkulum, or frond stalk—Ex., the Digi-radial frond of the Mauritia palma, Tadmor palma, Palmetto palma.

Quarto, and otherwise. The Palma frond is Multi-limbulate and Reminal, or Bi-radial ; and comprises and consists of several equal and similar fallæal membrula arranged along both sides of its frondinkulum, or frond stalk. The limbula being either partially reminal, and the frond penna-form—Ex., the Penna-form frond of the Cycas palma ; or the limbula being omnino-reminal, and entirely bi-radial—Ex., the Bi-radial and omnino-reminal frond of the Cocos palma.

Quinto, and otherwise. The Palma fronds are Fibro-crinulate ; and the Apo-terminal falleal membrula comprise and consist of numerous slender gramineal limbula, or grass-like leaves severally dependent from the apex of the stem in a cyclo-turial series—Ex., the gramineal fronds of the Australian grass palm tree, Zanthorrhœa.

Sexto, and otherwise. The Palma fronds are Crassulate ; and the Apo-terminal falleal membrula comprise and consist of several visco-succulent limbula produced and emanant from the apex of the stem in a cyclo-turial series—Ex., the Crass-succulent fronds of the Aloe palma.

The several constitutive portions of the Palma frond are

Primo. The Frondinkulum, or fibro-cylindrical frond stalk divergent from the stem.

Secundo. The Pagænum et Limbula, comprising the several elongated, or expanded membrula, supported by the frondinkulum.

2. OF THE STIRPETIOLATÆ FRONDES, OR RADITURIAL FRONDS.

Primo. The Stirpetiolatæ frondes, comprise the stirpetiolate and raditurial fronds, proceeding from the radix, or root of different kinds of Sporigerent plants, destitute of a stem, or stems, and supporting the kum buds and spor amenta of the fructification upon the surface of the leaves, or pagænal and fimbrulate falleal membrula—Ex., the Stirpetiolate and raditurial fronds of the Frondo-ferna planta of Polypodium genus.

Secundo, and otherwise. The Stirpetiolate frondes comprise the stirpetiolate and raditurial fronds proceeding from the radix, or roots of different kinds of Gemmiferent plants destitute of a stem, or stems, and supporting the gemm buds and flor-amenta of the fructification, arranged in a sequental series along the interlimbulate portion of the frond—Ex., the Stirpetiolate and raditurial fronds of the plant named Lilia convallaria.

3. OF THE CRASS-STIRPETIOLATE FRONDES.

Primo. The Crass-stirpetiolate frondes comprise the thick succulent and enlarged frondose limbs and membrula of vegetative products, having a regular formation and outline, or mathematical structure, but destitute of a stem, or stems—Ex., the Crass-stirpetiolate glomerate frond limbs of the Melon Cactus.

Secundo, and otherwise. The Crass-stirpetiolate frondes comprise the several enlarged fallæal membrula of vegetative products destitute of a Stem, and having an irregular constitutional structure and formation consisting of thick succulent leaves, produced and vegetant diversely one from another—Ex., the Crass-stirpetiolate fronds of the Opuntia Cactus.

The surface of the Crass-stirpetiolate fronds is most frequently garnished with sets of prickles, or thorns arranged in diversified mathematical series.

Tertio, and otherwise. The Crass-stirpetiolate frondes comprise the irregularly divergeut limbula produced from the terminal portion of a Stipulus.

OF THE VERDANT FRONDULA.

Comprehending the Frondulum of the Tree and Fruit tree, as well as the Frondulum of the Herb, and Ab ovo natal vegetative product.

The Frondula are distinguished as 1. The Arborinal et Omnino-ramal frondulum. 2. The Arborinal et Rami-terminal frondulum. 3. The Bracchiulate et Foliate frondulum. 4. The Bracchiulate et Fimbrulate frondulum. 5. The Radikal et Stirpal frondulum.

Of the Arborinal et Omnino-ramal frondulum,

Or frondulum of several Kalyk-konul amental kinds of timber trees of the forest.

The Arborinal et Omnino-ramal frondulum, comprises, 1. The Fallæal frondulum. 2. The Parvi-fallæal frondulum. 3. The Minyulate, or Parvi-limbulate et Parvi-membranulate frondulum. 4. The Divaricate, or Equi-frondulate et Multi-divaricate frondulum. 5. The Di-crinulate, or bi, tri, quinque et multi Di kyr rythmal frondulum.

The Omni-ramal et Fallæal frondulum.

Primo. The Omni-ramal et Kyr-rymnal fallæal frondulum, consisting of fibro-laminal aco-fallæal membranula, arranged around the entire longitudinal surface of the ligneous branch or branchlet, continuously and conturially, but not contiguously—Ex., the Chili Arau-pinus, of Kew Garden.

Secundo. The Omni-ramal et Alterno-sessinal frondulum, consisting of fibro-laminal et aco-fallæl membranula, arranged along the ligneous branch, or branchlet alternately—Ex., the Moreton bay Arau-pinus of K. G.

Tertio. The Omni-ramal et Kyr-sessinal fallæal frondulum, consisting of fibro-laminal et aco-fallæal membranula, arranged entirely around the ligneous branch, or branchlet—Ex., Araupinus Brasiliana of K. G.

The Omni-ramal et Parvi-fallæal frondulum.

Primo. The Omni-ramal et Parvi-fallæal frondulum, consisting of Sequino-fallæal membrula, or small evergreen leaves, arranged equally and entirely along both sides of the ligneous branch, or branchlet—Ex., Taxus sequoia, also Abies Duglassii of K. G.

Secundo. The Omni-ramal et Parvi-fallæal frondulum, consisting of alterno-fallæal membrula arranged alternately along both sides of the ligneous branch, or branchlet—Ex., Arau-pinus excelsior of K. G.

Tertio. The Omni-ramal et Parvi-fallæal frondulum, consistlng of kyrino-fallæal membrula, or small evergreen leaves, arranged entirely around the ligneous branch or branchlet—Ex., Taxus baccata, also Abies excelsior of K. G.

The Omni-ramal et Minyulate, or Parvi-limbulate et Parvi-membranulate frondulum.

Primo. The Omni-ramal et Miny-limbulate frondulum, consisting of numerous miny-kyrinal limbula, or small longitudinal fallæal membrula, equi-divergent around the entire surface of the ligneous branch, or branchlet—Ex., Araupinus excelsior Cunninghamii of K. G.

Secundo. The Omni-ramal et Miny-limbulate frondulum, consisting of numerous miny-kyr-sessinal fallæal membranula, arranged around the entire longitudinal surface of the ligneous branch or branchlet—Ex., Thuja pendula of K. G.

The Omni-ramal et Divaricate, or Equi-frondulate et Multi-divaricate frondulum.

Primo. The Omni-ramal et Equi-frondulate frondulum, comprising and consisting of small separal frondula arranged equally along both sides of the ligneous branch, or branchlet — Ex., Taxodium parvi-frondulum (T. Distichum) of K. G.

Secundo. The Omni-ramal et Multi-divaricate frondulum; comprising and consisting of numerous parvi-fallæal membranula, continually divergent from the ligneous branch, or branchlet—Ex., the trees of Cupressus genus, of K. G.

The Omni-ramal et Di-crinulate, or Bi-Tri-Quinque et Multi Di Kyr-rythmal frondulum..

Primo. The Omni-ramal et Bino-crinulate frondulum, comprising and consisting of numerous sets of Bino-crinulate et Di kyr-rythmal limbula, or fallæal membrula, arranged separately, equally, and entirely around the ligneous branch, or branchlet — Ex., Pinus laricia, also Pinus sylvestris, of K. G.

Secundo. The Omni-ramal et Trino-crinulate frondulum, comprising and consisting of numerous sets of Trino-crinulate et Di kyr-rythmal limbula, or fallæal membrula, arranged separately and entirely around the ligneous branch, or branchlet—Ex., Pinus filiformis, also Pinus teote of K.G.

Tertio. The Omni-ramal et Quino-crinulate frondulum, comprising and consisting of numerous sets of Quino-crinulate et Di kyr rythmal limbula

or fallæal membrula, arranged separately and entirely around the ligneous branch, or branchlet—Ex., Pinus Cimbra of K. G.

Quarto. The Omni-ramal et Multi-crinulate frondulum, comprising and consisting of numerous sets of Multi-crinulate et Di kyr-rythmal limbula, or fallæal membrula, arranged alternately around the ligneous branch, or branchlet—Ex., Larix araucaria of K. G., also Cedrus deodana (or Indian ceda) of K. G.

OF THE ARBORINAL ET RAMI-TERMINAL FRONDULUM, OR LEAF FRONDULUM OF THE TREE AND FRUIT TREE.

The Arborinal et Rami-terminal frondulum of the Tree and Fruit tree, comprises—

Primo. The Rami-terminal et Digi-foliate frondulum, consisting of a radikal series of 3, 5, 7, or more fallæal membrula, or leaves produced and divergent around the terminal portion of the frondinkulum, or frond stalk of the ligneous branch—Ex., the Rami-terminal et Tri digi-foliate frondulum of arborescent plants of Cytisus genus—Ex., the Septem digi-foliate et rami-terminal frondulum of arborescent plants of Æsculus genus.

Seeundo. The Rami-terminal et Remi-foliate frondulum, consisting of a bi-radial, or double series of 4, 6, 8, 10 to 30 fallæal membrula, or leaves produced, and arranged along both sides of a frondinkulum, or frond stalk, either alternately, or oppositely; and also with, or without a terminal frond leaf—Ex., the Quinque remi-foliate frondulum of arborescent plants of Rosa genus, also of Sambucus genus—Ex., the Septem digi-foliate frondulum of arborescent plants of Jasmimum genus—Ex., the Multi remi-foliate frondulum of arborescent plants of Juglans genus, Fraxinus genus, Swietenia genus, Guiacum genus.

OF THE BRACCHIULATE ET FOLIATE FRONDULUM.

Or Multi-pagænulate frondulum of the Herb and Ab ovo natal vegetative product.

The Bracchiulate et Foliate frondulum of the Herb and Ab ovo natal vegetative product, comprises—

Primo. The Bracchiulate et Digi-foliate frondulum, consisting of a radial series of 3, 5, 7, et plura fallæal membrula, or leaves produced and divergent around the terminal portion of a frondinkulum—or frond stalk, of the fibro-membranous stem, or branch—Ex., the Tri digi-foliate frondulum of the plants named Pisum, Medicago, Trifolium—Ex., the Septem digi-foliate frondulum of plants of Helleborus genus.

Secundo. The Bracchiulate et Remi-foliate frondulum, consisting of a bi-radial, or double series of 4, 6, 8, 10 to 30 fallæal membrula, or leaves, produced and arranged along both sides of the frondinkulum, or frond stalk, either alternately or oppositely; and also with or without a terminal frond leaf—Ex., the Multi remi-foliate frondulum of plants of Hedysarum genus, also of Vicia genus.

OF THE BRACCHIULATE ET FIMBRULATE FRONDULUM,

Or Slendro-fabbralate, et Parvi-limbulate frondulum of the Herb, and Ab ovo natal vegetative product.

When the several fallæal limbula, or membrula of the frondulum are very small, and their material substance and fabric of extreme tenuity, they are denominated Fimbrula—Ex., the Bracchiulate et Fimbrulate frondulum of plants of Anethum genus.

OF THE RADIKAL, OR STIRPAL FRONDULUM OF THE HERB AND AB OVO NATAL VEGETATIVE PRODUCT.

The Radikal and Stirpal frondulum is produced from the radix, or root, and divergent from the basis of the plant, and comprises a frondulum separate and distinct from the frondulum supported by the stem, or branches. The frond leaves, or fallæal membrula of the radikal and stirpal frondulum, are distinguished as Scaphiulate, or long, cylindrical, and hollow—Ex., the Scaphiulate frond leaves, or fallæal membrula of the stirpe raditurial frondulum of plants of Allium cepa. Otherwise, the material substance and fabric of the frond leaves, or fallæal membrula of the radikal frondulum of the herb are long, flat, collaminate and pytho-membranous—Ex., the Collaminate frond leaves of the fanlike stirpal frondulum of plants of Iris genus. Otherwise, the frond leaves, or fallæal membrula of the radikal and stirpal frondulum, are, fimbrulate or parvi fabbralate—Ex., the Fimbrulate et Radikal frondulum of plants of Tanacetum genus, Hottonia genus.

OF THE VERDANT LEAVES.

FALLÆ.

A Leaf is a multiform organical membrulum, or membranulum of the vegetative product or plant: its material substance and fabric, comprising and consisting of a thin succulent layer, or layers, of vegetative krebum, having a bi-lateral superficies, and a filo-tissued, or rete-tissued fibro-laminal texture and consistency.

The constitutive parts, or diversified portions of a leaf are—

1. The Pagænum; 2. The Petiolum; 3. The Bractelum.

OF THE PAGÆNUM.

The Pagænum is the flat expanded portion of the leaf terminating the stalk, or stalklet—Ex., the leaves of the plants named Hedera, Glechoma, Malva, Poma. Otherwise, the leaf or fallæal membranulum is produced without an intermediate stalk, or petiolum; and consists of the pagænum only—Ex., the leaves of the plants named Agrostemma, Myosotis.

OF THE PETIOLUM.

The Petiolum comprises the intermediate stalk, or elongated portion of the leaf supporting the pagænum.

OF THE BRACTELUM.

The Bractelum comprises the axiliar and basiliate, or circumplectant

portion of the leaf, encircling, clasping, and surrounding the annular nodes, junctura, and intermedial portions of the stem; or otherwise clasping and encircling, or surrounding the axiliar portions of the stem and leaves—Ex., the Bractelate and circumplectant portions of the leaves of plants named Anethum, Aquilegia, Heracleum, clasping the axiliar portions of their stems and frondula.

AS TO STRUCTURE AND DISTINCTIVE FASMA.

A Leaf is either Monoweb, that is to say, its material substance and fabric is entire and undivided—Ex., Laminaria fascia, also Laminaria fallites (Sir E. Smith's E. Botany). Otherwise a Leaf is Di partite, and divided by its intermedial limbulet into two equal and similar filo-tissued, or rete-tissued portions—Ex., the Di-partite filo-tissued leaves of gramineal plants. Otherwise, a Leaf is Multi-partite, and comprises and consists of several equal and similar membranous portions, or webs, divided by parallel, diagonal, or radial fibrulets—Ex., the filo-tissued leaf of the radikal herb, Plantago—Ex., the rete-tissued leaves of the several plants named Pyrus, Alcea, Ulmus, Rosa. The filo-tissued leaf is denominated Fyleum. The rete-tissued leaf is denominated Folium. The hollow fallæal membrulum, or elongated filo-tissued frond leaf produced from the stirpal portion of the Bulbo stem herba—for instance of the plant named Cepa (populatim, the Onion) is denominated Scaph-phylleum.

OF THE KALYX, AND DUAL PROCESS OF THE FRUCTIFICATION OF THE GRASS, HERB, TREE, FRUIT TREE, FRUIT PLANT, AND AB OVO NATAL VEGETATIVE PRODUCT.

The fructification of vegetative products, or plants, partakes of a dual process.

Primo. The process of the contingent conflux, involution, and renewal of vegetative essence and existence, within the kalyx, by means of the gemmation, congemmation, and conkunabulation of several diversified fibro-membranous limbula et membranula, constituting the Masculine and Feminine indices of regenerative vitality and duality. Otherwise constituting the organical indices of the Active and Passive principles of the vegetative state of nature.

Secundo. The process of the procreation and production of the embryo Ovulum, or multiform vegetative egg, according to the constitutional structure, peculiar species, and fasma of the parent plant, or plants of each distinct kind. The fructification comprehends and comprises also the procreation and production of the annual axenia, basilia, cymarula, amenta, vestamenta, involucra and fructa constituting the Kalyx, or organical receptaculum of the fructification.

OF THE KALYX.

The Kalyx, or organical receptaculum of the fructification (comprising the Spor amental kalyx et kunabulum; as well as the Gemmamental kalyx et kunabulum) supports, encircles, surrounds, encloses, contains, and envelopes the multiform embryo ovulum et ovula of the vegetative

product, or plant during the process of sexual gemmation, congemmation, procreation, and production.

The several organical and constitutive parts, or portions of the Kalyx, are—

1. The Fructification bud, comprising the Kum bud, and the Gemm bud. 2. The Axentum, comprising the Basement of the simplex fructification bud, and the Basilium of the complex fructification bud. 3. The Gemm, comprising the Anthal gemm, the Cymaral gemm, and the Floral gemm of frugiferent and fructugerent plants. 4. The Loculum et locula. 5. The Cymar et Cymarula. 6. The Vestium, comprising the Perifereum of the Anthal gemm, and the Peri-cymar of the Floral gemm. 7. The Ovulum et ovula. 8. The Amentum, comprising the Perifrux and the Frux-amentum. 9. The Fructum, or Fructovulum. 10. The Fruct-amentum, comprising the several kinds of Nuco-domal, Bakko-domal, Hespero-domal, and Melo-domal fructamenta. 11. The Pelli-kalium, comprising the Seminal pelli-kalium, and the Vertumnal pellikalium. 12. The Kortikulum, comprising the Fruxinal kortikulum, and the Fructinal kortikulum. 13. The several Ikona et Ika, comprising the numerical limbula et membranula of the Masculine gender, or active principle of regeneration. 13. The several Idola et Ida, comprising the numerical limbula et membranula of the Feminine gender, or passive principle of regeneration.

OF THE GEMM,

Comprising the Anthal gemm, the Cymaral gemm, the Floral gemm.

The several organical and constitutive parts, or portions of the Gemm, are—

1. The Axentum (a fibro-membranous vegetative fabric of an annular, diskunal, tabular, concave, convex, pyramidal, or cylindrical formation) supporting the Spor amental and Gemm amental parts, or portions of the kalyx et kunabulum. The Axentum comprises the basement of the simplex fructification bud, and the basilium of the complex fructification bnd.

2. The Collet (or central portion of the Gemm, supporting or elevating the Idola et Ida) comprises the Kupoum, or rotund, oblate collet, as well as the Kuspoum, or fibro-columnar collet.

3. The Cymar, comprising one, or several diversified many-coloured fibro-laminal webs, surrounds and protects either completely, or partially, the Collet, as well as the organical indices of regeneration.

4. The Fereum, or space around the Collet, is that portion of the gemm-areum enclosed by the Cymar, or Vestium; and occupied, surrounded, or encircled by the several circumstitial, or cyclostitial, or circumfereal Ikona; as exemplified in the floramental kalyces of the plants, Primula and Nymphæa, and also exemplified in the floramental kalyces of the fructugerent plants Pyrus and Prunus.

5. The Vestium (comprising the Perifereum of the Anthal gemm, and the Peri-cymar of the Floral gemm) is the exterior organical circumtegument of the Gemm bud, but after the Gemm bud has expanded, the Vestium becomes the Peri cymar encircling, and enclosing, and support-

ing the Cymar et Cymarula, or several Cymaral webs of the Flos, or Floral gemm. Otherwise, when the Fructification bud, or Gemm is destitute of a Cymar and constitutes an Anthal gemm, the Vestium becomes then, the Peri-fereum encircling and enclosing the Fereum, or Gemmareum and Indices.

Subsequently, the Vestium becomes, sometimes, the vasculate Peri loculum, or open vestimental Peri-frux encircling and enclosing, or containing the Ovula of several Aprifrux kinds of plants, for instance, plants of Salvia genus. Before the Bud has expanded the interior portions of the Gemm, as also the indices of regeneration, are enveloped and concealed by the exterior kortikal circumtegument, or Vestium, as exemplified in the Poppy bud, the Pea bud, the Alchemilla bud.

OF THE CYMAR ET CYMARULA.

Comprising the many-coloured Cymaral webs, of the Cymaral gemm and Floral Gemm.

The Cymar, or Cymaral web of the Gemm is either an entire fibro-laminal fabric, vas-form and undivided—Ex., the Vasform Cymar of the flower of the Convolvolus vitilis, or scammony vine. Otherwise the Cymar is partite, or divided; and comprises several distinct or separate parts and portions—Ex., the Partite Cymar of the flower of the herb Lamium—Ex., the Partite Cymar of the flower of the herb, Scutellaria—Ex., the Char petala flos, or flower of the plant Papaver—Ex., the Quadra petala flos, or flower of plants, of Brassica genus.

The several constitutive parts, or diversified portions of the Monoweb Cymar, are—

Primo. The Tuboum, comprising the vasculate and hollow, or tubulate and narrow portion of the Cymar.

Secundo. The Corollum, or circular border, comprising the expanded and divergent portion, or porlions of the Cymar.

AS TO STRUCTURE AND DISTINCTIVE FASMA.

The remarkable diversities of the fibro-laminate fabric of the Monoweb Cymar, are—

Vasform, or vasculate; Campaniform, or bellform; Tubaform, or trumpetform; Cylindroform, or cylindrical; Funnelform, or angulated; Planiform, or platterform.

OF THE PARTITE COROLLUM OF THE MONOWEB CYMAR.

The Monoweb Cymar is distinguished according to the diversified outline and circumference of its undivided corollum, or expanded border; as well as according to the number of segments, or equi-sectal portions of its partite corollum; for instance, the outline of the circumference of the expanded border constituting the corollum of the Vasform Cymar of the flower of the Scammony vine, is a circle almost mathematically correct and entire; whereas the Segments, or several equi-sectal portions of the border constituting the Corollum of the Campaniform Cymar of the flower of the plant named Campanula, are five in number.

When the Corollum of the Monoweb Cymar is di-partite, and comprises two opposite and similar portions, divergent from each other; or otherwise comprises two dissimilar and irregularly-formed and divergent portions of different dimensions; the two corollets, or divergent portions of the Cymar are distinguished and described as *Primo.* The Supra corollet, or upper corollet; and, *Secundo.* The Infra corollet, or lower corollet—Ex., the divergent corollets of the plant named Lamium.

The expanded border of the Cymar of the flower of the plant named Glechoma vitilis, or Alehoof vine, is quadra-partite, and comprises four unequally divergent corrollets. Accordingly, the upper and lower Segments of its Corollum are distinguished as the Supra corollet, and the Infra corollet, while the two lateral, or intermedial segments, are distinguished as the Dexter-lateral corollet, and the Sinister-lateral corollet.

OF THE CYMARULA, OR DIVERSIFIED PORTIONS OF THE CYMAR.

Comprising several distinct and separate Cymaral webs of the Gemm or Floral Gemm.

The several separate or dissident and divergent portions of the Cymar are denominated Cymarula, or Cymaral webs; Velamina, or Cymaral hoods; Petala, or Petals; Lapellula, or Lappets; also Fibro-crinula, and Fibro-fimbrula, or Cymaral fringe.

OF THE VELAMINAL AND BI-CYMARAL WEBS OF THE GEMM, OR FLORAL GEMM.

When the divided Cymar comprises two separate and opposite, or dissident and divergent Cymarula of dissimilar fabric and unequal dimensions, the Supra prominent web, partially covering and protecting the indices, is called the Velaminum, or hood; while the lower web is named the Infra cymarulum—Ex., the divergent Cymarula of the flower of the plant named Salvia.

OF THE VELAMINAL AND TRINE CYMARAL WEBS OF THE GEMM, OR FLORAL GEMM.

When the divided, or multiweb Cymar comprises velaminal and Trine-cymaral webs; otherwise, when the dissident and divergent Cymarula are trine alate, or tri paral webs. The three sets of Cymaral webs are distinguished and defined, as—

Primo. The exterior and retro-versal velamina, or cymarula.

Secundo. The convergent and apo-versal velamina, or cymarula.

Tertio. The contextal and co-opertal velamina, or cymarula covering and protecting the indices of the Flos, or Flower—Ex., the Velaminal and Trine-cymaral webs of the flower of Pisum vitilis, or the Pea vine; as also of other Podamental plants. In like manner the Velaminal and Trine-cymaral webs of the flower of the plant named Aconitum (or Monk's-hood), are denominated and described according to their peculiar structure and distinctive fasma, *i.e.*—

Primo. The Supra-prominent web covering and protecting the indices, is named the Velaminum, or hood.

Secundo. The two intermedial Cymarula are distinguished as the Dexter cymarulum and the Sinister cymarulum.

Tertio. The two inferior Cymarula are distinguished as the Dexter petalum, or lapellulum, and the Sinister petalum, or lapellulum.

OF THE PETALA, OR SEVERAL EQUAL AND SIMILAR CYMARAL WEBS OF THE GEMM, OR FLORAL GEMM.

The Flos, or Flower, is also distinguished by the number of its mathematically equal and similar Cymaral webs, denominated Petala, or petals; according to the number of Petala arranged in a circular series and radiate or divergent from the Collet and centre of the Gemm, the Flower is denominated Do-petala flos, Tri-petala flos, Char-petala flos, or Quadra-petala flos, Quine, or Quinque-petala flos, Sex-petala flos, Septem-petala flos, Octo-petala flos, No-petala flos, Decem-petala flos; that is to say, a flower having 2, 3, 4, 5, 6, 7, 8, 9, 10, or more Petala, otherwise mathematically equal and similar Cymaral webs.

When the divergent Petala are numerous and narrow, they are denominated Lapellula, and the Flower named Flos laciniatus.

When the divergent Petala are of extreme, or capillary tenuity, they are denominated Fibro-crinulate, or Fimbrulate.

When the Petala are produced and arranged in a duplicate, or triplicate series, the flower is denominated Flos Bi-laciniatus, Tri-laciniatus.

The mathematically equal and similar portions of the Corollum, or border of the Cymar, are denominated Corollula.

OF THE VESTIUM,

Comprising the Peri-fereum of the Anthal Gemm and the Peri-cymar of the Floral Gemm.

The Vestium is the thekulate and sepalliate fabric, constituting the organical circumtegument surrounding the Gemmium and Gemma, or monosexual gemm buds of uter, or either gender; and also surrounding the Gemmos, or Hermaphral gemm-bud of ambo, or both genders.

The Vestium, primarily envelopes the Gemm bud, but after the bud has expanded, then the Vestium becomes the Peri-cymar, encircling and surrounding the Cymar et Cymarula, or several Cymaral webs of the Flos, or floral gemm. Otherwise, when the expanded gemm bud is destitute of a Cymar, and constitutes an Anthal gemm, then the Vestium is the Peri-fereum encircling and enclosing the Fereum, or gemm areum; as well as the collet and indices. Subsequently (that is, as soon as the Cymar and Cymarula have fallen from the gemm), the Vestium sometimes becomes the vasculate peri-loculum, or open vestimental Peri-frux, enclosing and containing the Ovula of several apri-frux kinds of plants, for instance of the plant named Myosotis.

Ex., the plants Beta, Bosea, Salsola, Ulmus, have Anthamental gemm buds—Ex., the plants Agrostemma, Convolvulus, Primula, Rosa, have Floramental gemm buds.

OF THE SEVERAL CONSTITUTIVE PARTS OR DIVERSIFIED PORTIONS OF THE VESTIUM.

The Vestium is either a Monoweb fabric; otherwise the Vestium is partite, or divided, and comprises several separate and equal parts, or equi-sectal portions.

OF THE MONOWEB VESTIUM.

The several constitutive parts, and diversified portions of the Monoweb Vestium, are—

Primo. The Thekulum, comprising the vasculate and hollow, or tubulate and narrow portion of the Vestium, as exemplified in the Vestium of the Fructamental kinds of plants, Amygdalus and Prunus.

Secundo. The Sepallium et Sepallia, comprising the expanded border, or borders of the Vestium, as exemplified in plants of Agrostemma genus.

OF THE PARTITE SEPALLIUM OF THE MONOWEB VESTIUM.

The Sepallium, or expanded border of the Vestium, is partite into 2, 3, 4, 5, 6, 7, 8, 9, to 12 or more equi-sectal portions, or segments, denominated Sepallula—Ex., the twi-sepallulate peri-cymaral Vestium of the Flos or flower of plants of Portulaca genus—Ex., the quine-sepallulate peri-cymaral Vestium of the Flos, or flower of plants of Solanum genus—Ex., the plura decem sepallulate peri-cymaral Vestium of the Flos, or flower of plants of Sempervivum genus. Otherwise, the Sepallula, or segments of the Sepallium, are alternately equi-sectal—Ex., the octo-sepallulate and alternate peri-cymaral Vestium of the Flos, or flower of plants of Tormentilla genus, of Dryas genus—Ex., the decem-sepallulate and alternate peri-cymaral Vestium of the Flos, or flower of plants of Fragaria genus, of Potentilla genus, of Geum genus, of Comarum genus.

OF THE DIVIDED, MULTIWEB VESTIUM.

The Vestium, or Peri-cymar, is often a divided fabric, and comprises 2, 3, 4, 5, 6, 7, 8, 9 to 15, or more mathematically equal and similar parts denominated Vestula—Ex., the twi-vestulate Peri-cymar of the Flos, or flower of plants of Papaver genus, of Hypecoum genus—Ex., the char-vestulate Peri-cymar of the Flos, or flower of plants of Erica genus, of Nymphæa genus; also the char-vestulate Peri-fereum of the Gemm of plants of Rivina genus—Ex., the quine-vestulate Peri-cymar of the Flos, or flower of plants of Diosma genus, also the quine vestulate Peri-fereum of the Gemm of plants of Beta genus, of Salsola genus, of Bosea genus. Otherwise, the Vestula, or several separal and divergent parts of the Vestium, are produced and arranged alternately—Ex., the quine vestulate and alternate peri-cymar of the Flos, or flower of plants of Cistus genus—Ex., the sex vestulate and alternate Peri-cymar of the Flos, or flower of plants of Tetracera genus—Ex., the decem vestulate and alternate Peri-cymar of the Flos, or flower of plants of Galax genus.

OF THE DUPLEX, OR DOUBLE VESTIUM.

The Vestium is either monoplex, that is to say, the Gemm is surrounded or encircled by only one Vestium—Ex., the monoplex Vestium, or peri-cymar of the Flos, or flower of plants of Agrostemma genus, also the monoplex Vestium, or peri-fereum of the Gemm of plants of Alchemilla genus. Otherwise, the Vestium is Duplex, that is to say, the Gemm is surrounded or encircled by a double Vestium, or duplicate circumtegument—Ex., the two Vestia primarily enveloping the Gemm buds, and subsequently encircling and supporting the petala of the flower, as well as enclosing the Ovula of plants of Alcea genus, of Malva genus.

OF THE INVESTITURIUM, OR MULTI-GEMM VESTIUM.

The Investiturium, or Multi-gemm Vestium, is the organical fibro-membranous circumtegument enveloping and subsequently surrounding the Gemmlets and amenta of the Gemmoum, Diademoum, Basilikoum, or several complex and multiplex fructification buds, and comprises—

Primo. The Cetraretrium, or Cetral investiturium, enveloping and subsequently surrounding the Concyclar and verticilliate gemmlets of the Gemmoum.

Secundo. The Tyaretrium, or Tyaral investiturium enveloping and subsequently surrounding the Synterminal gemmlets of the Tyaral Basilikoum.

Tertio. The Rythmaretrium, or Rythmal investiturium enveloping and subsequently surrounding the Synterminal gemmlets of the Chorrythmal, or Conturrythmal Basilikoum.

Quarto. The Diametrium, or Diamedial investiturium, enveloping and subsequently surrounding the Congemnate and pyro-concyclar gemmlets of the Diademoum.

OF THE INVOLUCRUM, OR INVOLUCRAL VESTIUM.

The Involucrum comprises the Spadi-thekal involucrum and the Spath-thekal involucrum.

OF THE SPADI-THEKAL INVOLUCRUM.

The Spadi-thekal involucrum is the fibro-membranous sheath enveloping the Spadix, or choro-fructinkulate branchlet supporting the floramental kalyces of Palmæ plantæ, or Palma frond fruit trees.

The Spadi-thekal involucrum is divided into one or more fibro-laminal portions.

OF THE SPATH-THEKAL INVOLUCRUM.

The Spath-thekal involucrum is the fibro-membranous sheath enveloping the floramental kalyces of several kinds of Bulbo stem herbæ and Radikaliæ herbæ.

The Spath-thekal involucrum is either Apo-thekal or Omni-thekal—Ex., the Apo-thekal involucrum, enveloping the floramental Kalyces of plants of Narcissus genus, Galanthus genus, Pancratium genus, Arum genus—Ex., the Omni-thekal involucrum, enveloping the floramental kalyces of plants of Orchis genus, Ophrys genus.

OF THE AMENTUM,

Comprising the Peri-frux and the Frux-amentum, as well as the Fruct-amentum.

The Amentum is the diversified organical receptaculum supporting, encircling, surrounding, enclosing, containing, and enveloping the embryo-ovula of the Grass, Herb, Tree, Fruit tree, Fruit plant, or Ab-ovo natal vegetative product.

The several organical and constitutive parts or portions of the Amentum, are—

1. *The Axentum;* comprising the Basement and the Basilium; a fibro-membranous vegetative fabric (of an annular, diskunal, tabular, pyramidal, concave, convex, or longitudinal formation), supporting the several ovula, or fruct-ovula of the Amentum—Ex., the pyramidal basilium supporting the fruct ovula and uval fructum of the Mor-amental kinds of Fruit trees and Fruit plants of Morus genus, of Fragaria genus, of Rubus genus—Ex., the tabular basilium supporting the sagittate, or pappulate ovula of plants of Leontodon genus—Ex., the longitudinal basilium supporting the bractealate ovula of plants of Pinus genus—Ex., the concave basement supporting the aprifrux ovula of plants of Myosotis genus.

2. *The Ovulum et Ovula;* produced and located either externally or internally, and comprising the ovula, or fruges of Frugiferent plants, as well as the Fruct-ovula of Nuco-domal, Bakko-domal, Hespero-domal, and Melo-domal fruit trees and fruit plants.

3. *The Perifrux;* comprising the Apertamentum, or open vasculate receptaculum surrounding and enclosing or only partially covering the ovula—Ex., the open vasculate Peri-frux, or thekulate vestium containing the four ovula of plants of Pulmonaria genus.

4. *The Frux-amentum;* comprising the Opertamentum, or covered fabbralate receptaculum, completely covering and enveloping the ovula—Ex., the Opertamentum, or covered fabbralate Fruxamentum, containing the ovula of plants of Tulipa genus.

5. *The Loculum et Locula;* (or Amentareum) constituting and comprising the internal space of the Amentum, divided into cellula, clausura, or several distinct and separate locula, occupied by the ovulum et ovula. Otherwise, comprising the exterior superficial, or circumfereal locula occupied by the ovula—Ex., the internal loculum containing the several ovula arranged alternately along the longitudinal basilium of the Pod-amentum of the Pisum vitilis, or pea vine—Ex., the exterior locula supporting the several ovula produced and arranged upon the pelli-kalium of the Mor-amentum of the Fragaria viticulus, or Strawberry vine.

6. *The Dissepimenta, or Partitions* of the Amentum; comprising—

Primo. The longitudinal, radial, or concyclar Telamina, constituting the internal partitions of the Amentum—Ex., the radial telaminate dissepimenta constituting the internal partitions of the Amentum of plants of Papaver genus.

Secundo. The separal tegulia, or kortinal and glumal Squamæ, con-

stituting the external imbricate partitions of the Amentum—Ex., the kortinal squamæ, constituting the external partitions of the Kalyk-konulamental kinds of plants of Pinus genus.

7. *The Fructum, or Melobidium;* comprising and constituting the fibro-membranous esculent, krebrum, or edible portion of the fruit of Hesperian and Oriental fruit trees and fruit plants, and comprehending the external melobidium, or pome; as well as the internal melobidium, and fibro-saccharidium, or succulent pulp surrounding the fruct-ovula.

8. *The Fruct-amentum;* comprising the several different kinds of Nuco-domal, Bakko-domal, Hespero-domal, and Melo-domal fruct-amentum.

9. *The Pelli-kalium;* consisting of an entire fibro-membranous organical tegument, and comprising—

Primo. The Seminal pelli-kalium, constituting the husk of the cereal ovulum and fruct-ovulum, or harvest seed of plants—Ex., the fibro-membranous pelli-kalium, or husk enveloping each di-lobal ovulum, or harvest seed, of plants of Pisum genus, Amygdalus genus, Tamarindus genus, Œsculus genus, Brassica genus, Lupinus genus.

Secundo. The Vertumnal pelli-kalium, or entire fibro-membranous rind enveloping the succulent krebrum, or melobidium constituting the interior portion of the fructum, or fruit of the orange, pomegranite, apple, mango, plum, and other fruit trees and fruit plants.

10. *The Kortikulum;* constituting the exterior organical circum-tegument either completely enveloping, or otherwise only partially covering and surrounding the Amentum, or Fruct-amentum—Ex., the fibro-membranous Kortikulum, enveloping the Nucal shell, or Zelonium of the Coconut—Ex., the fibro-membranous Kortikulum, enveloping the Conchal shell of the Walnut—Ex., the fibro-membranous Kortikulum, encircling, or partially surrounding the axental portion of the Pod-amentum of the Pea vine—Ex., the Vestamental Kortikulum. surrounding the fructum and axental portion of the Fruct-amentum of the Strawberry vine.

OF THE MATHEMATICAL, OR NUMERICAL AND TERMINAL LIMBULA ET MEMBRANULA,

Produced and apparent in the Kalyx, or organical receptaculum of the fructification of the Grass, Herb, Tree, Fruit tree, Fruit plant, or Ab-ovo natal vegetative product.

The Mathematical, or Numerical and Terminal limbula et membranula of Vegetative products comprise several diversified slendro-fabbralate, or pavi-membranous portions of the Gemm, constituting the Masculine and Feminine indices of regenerative vitality and duality; otherwise constituting the organical indices of the Active and Passive principles of the Vegetative state of Nature.

OF THE NUMERICAL LIMBULA ET MEMBRANULA OF THE GEMM;

Constituting the indices of the Feminine gender, or Passive principle.

The several limbula et membranula, constituting the indices of the

Feminine gender, are the Idola et Ida, comprising—1. The Kupo-idola et Kupo-ida. 2. The Kuspo-idola et Kuspo-ida.

OF THE IDOLUM ET IDOLA;

Comprising one or many numerical indices of the Feminine gender.

The Idola are the central elongated limbula of the Gemm produced from the kupoum, or rotund, oblate, and oviform Collet of the Gemmos and Gemma; and denominated Kupo-idola. Otherwise, the Idola are the central elongated limbula of the Gemm produced from the kuspoum, or fibro-columna Collet of the Gemmos and Gemma; and denominated Kuspo-idola.

The constitutive portions of the Idolum, are—

Primo. The Stylum, constituting the cylindrical, or long slender portion of the Idolum.

Secundo. The Gemmex et Gemmices, constituting the terminal portions of the Idolum.

When the numerical indices of the Feminine gender are sessinal upon the Collet of the gemm, and constitute organical membranula destitute of an intermedial stylum, they are denominated Ida.

OF THE IDUM ET IDA;

Comprising one or many numerical indices of the Feminine gender.

The Ida are the central membranula of the Gemm produced from and sessinal upon the Kupoum, or rotund, oblate, and oviform Collet of the Gemmos and Gemma, without an intermedial Stylum.

Otherwise, the Ida are the central and apo-terminal membranula of the Gemm, produced from and sessinal upon the Kuspoum, or fibro-columnar Collet of the Gemmos and Gemma, without an intermedial Stylum.

OF THE NUMERICAL LIMBULA ET MEMBRANULA OF THE GEMM;

Constituting the indices of the Masculine gender, or Passive principle.

The several limbula et membranula constituting the indices of the Masculine gender are the Ikona et Ika, comprising—1. The Circumfereal ikona et ika. 2. The Circum-colletral ikona et ika. 3. The Peri-colletral ikona et ika. 4. The Apo-colletral ikona et ika (produced together with the Feminine indices in the same Ad-domal gemmos, or Hermaphral gemm bud). As well as comprising—5. The Di-domal and Di-axental, or Di-gemmnate ikona et ika produced from the Gemmium, or Mono-sexual gemm bud, singly, or severally and separately from the Feminine indices.

OF THE IKONUM ET IKONA;

Comprising one or many numerical indices of the Masculine gender.

The Ikona are the several elongated limbula of the Masculine gender produced either from the Cymar of the gemmos, otherwise produced

from the Vestium, or Peri-cymar of the gemmos ; otherwise produced from the basement of its Collet ; otherwise produced from the margin of its gemmareum ; otherwise produced from the superficies of its Collet ; otherwise produced from the apex of its Collet ; or otherwise, Di-gemnate, and produced from the centre of the Gemmium, or Mono-sexual gemm bud.

When the numerical indices of the Masculine gender are sessinal and constitute organical membranula destitute of an intermedial stypium, they are denominated Ika.

The constitutive portions of the Ikonum, are—

Primo. The Stypium, comprising the cylindrical, or long slender portion of the Ikonum.

Secundo. The Vertex et Vertices, comprising the terminal portion, or portions of the Ikonum.

OF THE DI-DOMAL AND DI-AXENTAL; OR DI-GEMNATE ET SEPARATE IKONA ET IKA.

The Di-domal and Di-axental, or Di-gemnate Ikona comprise the elongated limbula of the Masculine gender produced from the centre of the Gemmium, or Mono-sexual gemm bud separately from the Feminine indices. The Gemmium and Gemma, or Mono-sexual gemm buds of uter, or either gender, being Di-gemnate from the same stem, or otherwise Di-gemnate from separate stems.

The Di-gemnate Ika are produced without an intermedial stypium.

OF THE APO-COLLETRAL IKONA ET IKA.

The Apo-colletral Ikona comprise several numerical limbula of the Masculine gender produced and conterminate together with the Feminine indices from the Apex, or terminal portion of the Collet of the Gemmos.

The Apo-colletral Ika are produced without an intermedial stypium.

OF THE PERI-COLLETRAL IKONA ET IKA.

The Peri-colletral Ikona comprise several numerical limbula of the Masculine gender produced and disposed upon the superficies of the fibro-columnar, or enlarged Collet of the Gemmos, and distinguished as—1. Peri-colletral et Turbatural Ikona. 2. Peri-colletral et Ambo-contural Ikona.

The Peri-colletral Ika are produced without an intermedial stypium.

OF THE CIRCUM-COLLETRAL IKONA ET IKA.

The Circum-colletral Ikona comprise several numerical limbula of the Masculine gender produced from the basement of the Collet of the Gemmos, and distinguished as—

1. The Impar-stypiate et Impar-domal Ikona, in number four ; two Ikona being longer, two shorter.

2. The Impar-stypiate et Impar-axental Ikona, in number six ; four Ikona being longer, two shorter.

3. The Turba-stitial et Separal Ikona, in number from 1 to 500,

produced from the basement and disposed severally and separately around the Collet of the Gemmos ; as exemplified in most of the affinal kinds of plants of the eleven primary Ad-domal classes.

4. The Cyclo-stitial et Rimnal Ikona, produced and arranged upon the margin of the gemmareum of the Gemmos in a circular series.

5. The Cylo-stitial et Contiguous Ikona, produced from the basement of the Collet of the Gemmos in a contingent series.

The Circum-colletral et Bractelate, or Circum-colletral et Combinate, Ikona comprise—

6. The Fasciate et Centro-vergent; the Fastigiate et Apo-vergent; the Bractelate et Cyclo-combinate sets of Ikona, produced from the basement and surrounding the Collet of the Gemmos. The vertical portions of the Ikona being connected together ; otherwise, the Stypial portions of the Ikona being combined, and conjoined by means of Bractela, or fibro-laminal membranes.

The Circum-colletral Ika are produced without an intermedial stypium.

OF THE CIRCUMFEREAL IKONA ET IKA.

The Circumfereal Ikona comprise several numerical limbula of the Masculine gender, produced within the tuboum of the Cymar ; otherwise produced within the tuboum of the Vestium ; and they are disposed and arranged either singly or cyclarly in one or more circular series upon the inner surface of the tuboum of the Cymar ; or upon the inner surface of the tuboum of the Vestium ; or otherwise, upon the annular rim of the gemm-areum.

The Numerical and Circumfereal indices of the Masculine gender are most frequently Ika, *i.e.*, Sessinal membranula destitute of an intermedial stypium.

OF THE VERTICILLIATE ET CONCENTRICAL INDICES OF THE GEMMOUM.

The Gemmora, or Congemnate Hermaphral gemm buds of each Gemmoum, are arranged in Verticilliate, or circular and concentrical series upon the Cetral basilium of an enlarged Kalyx (or Kalykoum). The five numerical indices of the Masculine gender (surrounding the central idolum of each gemmos of the Gemmoum) are Cyclo-combinate and Scaphio-vertinate, or convertinate ; *i.e.*, each set of five cyclo-stypiate indices is terminated and combined by a bractelate annular Vertex.

OF THE SEVERAL KINDS OF AMENTUM,

Or, diversified organical receptaculum, containing the embryo ovula of the Grass, Herb, Tree, and Ab-ovo-natal Vegetative product.

The several kinds of Amentum (comprising the Peri-frux and the Frux-amentum) are primarily distinguished as Apert-amental and Opert-amental.

THE APERTAMENTUM; OR, OPEN VASCULATE RECEPTACULUM,

COMPREHENDING

a Thekulate peri-frux;
or,
Mono-genus Vestamentum,
comprising
the Thekulate peri-frux, or Peri-locidate Vestium, containing the 4 Ovula of several aprifrux kinds of plants of Do ad doma Gemmos and Class.
Ex., plants of
Lycopus genus.
Monarda genus.
Salvia genus.
Ziziphora genus.

SECUNDO.

Also containing the 4 Ovula of several apri-frux kinds of plants of Quino tarrin ad Gemmos and Class.
Ex., plants of
Anchusa genus.
Asperugo genus.
Myosotis genus.
Lithospermum genus.
Symphytum genus.

TERTIO.

Also containing the 4 Ovula of several aprifrux kinds of plants of Dispar twin ikona et quadriuad doma Gemmos and Class.
Ex., plants of
Glechoma genus.
Lamium genus.
Origanum genus.
Prasium genus.

a Cetral peri-frux;
or,
Multi-Genus Cetrarium,
comprising
the Investitarial and Cetral peri-frux, containing the Saggitate, or fibro-natalat, and fileo-plumulate Ovula of several aprifrux kinds of plants of the Gemmora omnino-cetral Gemmoum and Class.
Ex., plants of
Arctium genus.
Cnicus genus.
Sonchus genus.

SECUNDO.

Also of the Cynarula circum Gemmora Gemmoum and Class.
Ex., plants of
Achillea genus.
Senecio genus.
Inula genus.

TERTIO.

Also of the Gemmæ circum Gemmora di-cetral Gemmoum and Class.
Ex., plants of
Centaurea genus.
Helianthus genus.

QUARTO.

Also of the Gemmæ circum Gemmia di-cetral Gemmoum and Class.
Ex., plants of
Filago genus.
Arctotis genus.

a Pharetal peri-frux;
or,
Multi-genus Diametrium,
comprising
the Investitarial and Pharetal peri-frux, or Diametrium, containing the separate Ovula of several apri-frux kinds of plants of Char ad doma Dodecmoum and Class.
Ex., plants of
Dipsacus genus.
Cephalanthus genus.
Gibbularia genus.
Scabiosa genus.

SECUNDO.

Also comprising the Investitarial and Pharetral peri-frux, or Diametrium, containing the separate and fileo-plumulate, or glumulate Ovula of several apri-frux kinds of plants of Quino al doma Dodecmoum and Class.
Ex., plants of
Kuhnia genus.
Brunia genus.

a Glumal peri-frux;
or,
Twi-valvulate Paleum.
comprising
the Mene-glumal and Plura-glumal peri-frux, or Twi-valvulate paleum, containing the Ovula of several graminal kinds of plants of Trine duad doma Gemmos and Class.
Ex., plants of
Triticum genus.
Poa genus.
Hordeum genus.
Phleum genus.

SECUNDO.

Also containing the Ovula of several graminoeal kinds of plants of Sex duad doma Gemmos and Class.
Ex. plants of
Galuia genus.
Oryza genus.

TERTIO.

Also containing the Ovula of several graminoeal kinds of plants of Trine et trine duad Gemmos et Gemminum Syn stemma Class.
Ex., plants of
Andropogon genus.
Ægilops genus.
Holcus genus.
Spinifex genus.

a Kupulate perifrux;
or,
Hemi-spheral Kupalum.
comprising
the Cuplike tortinal peri-frux, or, Hemi-spheral kupalum encircling and supporting the Ovulum of several aprifrux kinds of plants of Decem et bidum Di-gemmate et Syn stemma Class.
Ex., plants of
Quercus genus.

SECUNDO.

Also comprising the Cuplike succulent peri-frux, or, Rotund kupalum encircling and supporting the Ovulum of several aprifrux kinds of plants of Turbo terminal et idum Di-gemmate et Di-stemma Class.
Ex., plants of
Taxus genus.

A NON-APERTURAL SPHERULATE FRUX-AMENTUM:

or,

SPHERO-SAPPA BAKKUM,

comprising

a Bakkum nucleatum.
containing the nucleate Ovulum of several Spheroidal-sappamental kinds of plants of Plura decem ad doma Gemmos and class.
Ex., plants of
Bocconia genus.

SECUNDO.

Also containing the nucleate Ovulum of several Spheroidal-sappamental kinds of plants of Oct tubin ad doma Gemmos sesd class.
Ex., plants of
Daphne genus.

TERTIO.

Also containing the nucleate Ovulum of several Spheroidal-sappamental kinds of plants of Do ika kupo ter ida Gemmos and class.
Ex., plants of
Piper genus.

QUARTO.

Also containing the nucleate Ovulum of several Spheroidal-sappamental kinds of plants of Char ika et idum Di-gemmate et Di stemma class.
Ex., plants of
Viscum genus.

comprising

a Bakkum nidulatum,
containing the nidulate Ovula of several Spheroidal-sappamental kinds of plants of Quino ad doma Gemmos and class.
Ex., plants of
Lonicera genus.
Solanum genus.

SECUNDO.

Also containing the nidulate Ovula of several Spheroidal-sappamental kinds of plants of Turba kupo idum Gemmos and class.
Ex., plants of
Nymphæa genus.

TERTIO.

Also containing the nidulate Ovula of several Spheroidal-sappamental kinds of plants of Turb ika bev ida ambo centaral Gemmos and class.
Ex., plants of
Arum genus.

SPHERO-LAMINAL FOLLICULUM,

comprising

a Folliculum peri-centrum,
containing the sessinal and contiguous, or imbricate Ovula of several Follicular-amental kinds of plants of Quino ad doma Gemmos and class.
Ex., Ab-ovo-natal plants of
Capsicum genus.

comprising

a Folliculum peri-axentum,
containing the sessinal and contiguous, or imbricate Ovula of several Follicular-amental kinds of plants of Quino ad doma Gemmos and class.
Ex., Herbs of
Cynoicum genus.

AN APERTURAL PLURA FORM FRUX-AMENTUM:

or,

MONO-LOCULATE KAPPALUM,

comprising

a Kappalum nucleatum,
containing the nucleate Ovulum of a single Kappal-amental kind of plant of Char ad doma Gemmos and Class.
Ex., plants of
Rhæcma genus.

SECUNDO.

Also containing the nucleate Ovulum of a single Kappal-amental kind of plant of Decem ad doma Gemmos and class.
Ex., plants of
Bucida genus.

TERTIO.

Also containing the nucleate Ovulum of several Kappal-amental kinds of plants of Oct tarrin ad Gemmos and Class.
Ex., plants of
Passerina genus.

QUARTO.

Also containing the nucleate and Bract-annulate Ovulum of several Kappal-amental kinds of plants of Quino tubin ad Gemmos and Class.
Ex., plants of
Ulmus genus.

comprising

a Kappalum nidulatum,
containing the nidulate Ovula of several Kappal-amental kinds of plants of Quino fastigiate et mon ad doma Gemmos and Class.
Ex., plants of
Lysimachia genus.

SECUNDO.

Also containing the nidulate Ovula of several Kappal-amental kinds of plants of Decem duad doma Gemmos and Class.
Ex., plants of
Dirythmos genus.

TERTIO.

Also containing the nidulate Ovula of several Kappal-amental kinds of plants of Decem tri ad doma Gemmos and Class.
Ex., plants of
Arenaria genus.
Stellaria genus.

QUARTO.

Also containing the nidulate Ovula of several Kappal-amental kinds of plants of Decem quinquad doma Gemmos and Class.
Ex., plants of
Agrostemma genus.

AN INTERNALLY DIVIDED FRUX-AMENTUM:

or,

MULTI-CELLULATE KAPPALUM,

comprising

a Kapsellulum nucleatum,
containing the Di-nucleate Ovula of several Kapsellid-amental kinds of plants of Decem ad doma Gemmos and Class.
Ex., plants of
Fagonia genus.

SECUNDO.

Also containing the Di-nucleate Ovula of several Kapsellid-amental kinds of plants of Decem quinquad doma Gemmos and Class.
Ex., plants of
Oxalis genus.

TERTIO.

Also containing the Di-nucleate Ovula of several Kapsellid-amental kinds of plants of Decem decial Gemmos and Class.
Ex., plants of
Neurada genus.

THE OPERTAMENTUM; OR, COVERED FABBRALATE RECEPTACULUM.

D MULTIFORM M:

LPSULUM,
comprising
Sodiatum nidulatum,
ing the Di-nidulate
several Kapcellul-
kinds of plants of
idoma Gemmos and
s.
kants of
ns genus.

SECUNDO.

ntaining the Di-
il Ovula of several
ful-amental kinds of
of Flura decem ad
mmos and Class.
lants of
sum genus.

TERTIO.

ontaining the Di-
il Ovula of several
ful-amental kinds of
of Turba-kupo ber-
mos and Class.
plants of
ster genus.

QUARTO.

ntaining the Di-
il Ovula of several
ful-amental kinds of
of Decem ika turrin
mos and Class.
plants of
thenia genus.

AN EXTERNALLY DI-PARTITE, OR DIVIDED FRUX-AMENTUM:

or,

DI-LAMINAL FOLLICULUM,

comprising
an Utricul um Mono-sil,
containing the imbricate Ovula of several Mono-sil amental kinds of plants of Quine tubin-ad Gemmos and Class.
Ex., plants of
Nerium genus.
Cameraria genus

SECUNDO.

Also containing the imbricate Ovula of several Mono-sil amental kinds of plants of Quine tubin ad Gemmos and Class.
Ex., plants of
Perculuria genus.
Melodinus genus.

comprising
a Conceptaculum Bi sil,
containing the imbricate Ovula of several Bi-sil amental kinds of plants of Quine ad doma Gemmos and Class.
Ex., plants of
Vinca genus.
Anagallis genus.

SECUNDO.

Also containing the compressed Ovula of several Bi-sil amental kinds of plants of Quine turrin ad Gemmos and Class.
Ex., plants of
Cinchona genus.

A CO-OPERTAMENTAL BI-LAMINATE FRUX-AMENTUM:

or,

TWI-VALVULATE DIS-SILLULUM PODIUM,

comprising
a Podium sil oblum,
containing several Ovula arranged alternately and dependent from both sides of the intermedial dissepiment of a short, retund, or oblate pod.
Ex., the Sil-oblum, or short oblate Pod, containing the alternate Ovula of several Co-opert amental and Quadra-petala kinds of plants of Quadra et twin ikona et idum Gemmos and Class.
Ex., plants of
Draba genus.
Iberis genus.
Myagrum genus.
Vella genus.

comprising
a Podium sil-lumbulum.
containing several Ovula arranged alternately and dependent from both sides of the intermedial dissepiment of a long cylindrical, or slender Pod.
Ex., the Sil-lumbulum, or long cylindrical Pod, containing the alternate Ovula of several Co-opert-amental and Quadra-petala kinds of plants of Quadra et twin ikona et idum Gemmos and Class.
Ex., plants of
Arabis genus.
Brassica genus.
Cheiranthus genus.
Raphanus genus.

or,

TWI-VALVULATE DIS-CELLULUM PODIUM,

comprising
a Legumen conchatum,
containing several Ovula, arranged alternately and dependent from only one side of a conchal Pod sine clausura; its valvula not divided by external junctura.
Ex., the Legumen, or Monoclausural conchal Pod, containing the alternate Ovula of several Co-opertamental kinds of plants of Decem ad doma and Trine cymaral Gemmos and Class.
Ex., plants of
Anagyris genus.
Hymenea genus.
Cercis genus.
Sephora genus.

SECUNDO.

Also containing the alternate Ovula of several Legumental kinds of plants of Decem fastigiate et Trine cymaral Gemmos and Class.
Ex., plants of
Crotolaria genus.
Ulex genus.
Spartium genus.

TERTIO.

Also containing the alternate Ovula of several Legumental kinds of plants of Decem di-fastigiate et Trine cymaral Gemmos and Class.
Ex., plants of
Pisum genus.
Lotus genus.
Vicia genus.

comprising
a Kodium clausuratum,
containing several Ovula, arranged alternately and dependent from only one side of a clausural and extra collaminate Pod; its valvula divided by external junctura.
Ex., the Kodium, or Extra-collaminate clausural Pod, containing the alternate Ovula of several Co-opert amental kinds of plants of Decem ad doma and Quine petala Gemmos and Class.
Ex., plants of
Cassia genus.
Guilandina genus.
Parkinsonia genus.
Poinciana genus.

SECUNDO.

Also containing the alternate Ovula of several Kodi-amental kinds of plants of Decem di-fastigiate et Trine cymaral Gemmos and Class.
Ex., plants of
Coronilla genus.
Hippocrepa genus.
Scorpiurus genus.
Hedysarum genus.

A TEGULIATE SEPAR-LAMINAL FRUX-AMENTUM;

or,

SQUAMAL KUNABULUM,

comprising
a Kalyk kunulum,
containing the separal bractelate Ovula of several Kalyk kenul-amental kinds of plants of Turba terminal et idolum Di-kunabulate et Syn stemma Class.
Ex., plants of
Pinus genus.

SECUNDO

Also containing the separal bractelate Ovula of several Kalyk kenul-amental kinds of plants of Un et twin idola Di-kunabulate et Syn stemma Class
Ex., plants of
Casuarina genus.

comprising
a Kalyk kelenum,
containing the separal spricate Ovula of several Kalyk kele-amental kinds of plants of Char et du idola Di-kunabulate et Syn stemma Class.
Ex., plants of
Betula genus.

SECUNDO.

Also containing the separal and nucleate Ovula of several Kalyk kele-amental kinds of plants of Decem et du idola Di-kunabulate et Syn stemma Class.
Ex., plants of
Carpinus genus.

TERTIO.

Also containing the separal spricate Ovula of several Kele-amental kinds of plants of Un et un idolum Syn-kunabulate et Syn stemma Class.
Ex., plants of
Cynomorium genus.

or,

IMBRICATE KUNABULUM,

comprising
a Kalyk testulum,
containing the separal nucleate Ovula of several Kalyk testul-amental kinds of plants of Char-ika et bev ida Di-kunabulate et Syn stemma Class.
Ex., plants of
Cupressus genus.

comprising
a Kalyk orbulum,
containing the separal apricate and fibro-setulate Ovula of several Kalyk orbul-amental kinds of plants of Turba et bev idola Di-kunabulate et Syn stemma Class.
Ex., plants of
Platanus genus.

SECUNDO.

Also containing the separal Di-nucleate Ovula of several Kalyk orbul-amental kinds of plants of Turb ika terminal et du idola Di-kunabulate et Syn stemma Class.
Ex., plants of
Liquidambar genus.

A DI-TEGULIATE SEPAR-LAMINAL FRUX-AMENTUM;

or,

TEG-GLUMAL KUNABULUM,

comprising
a Kalyk glumulum,
containing the separal and tri-lateral apricate Ovula of several Kalyk glumul-amental kinds of plants of Trine et trine ida Syn-kunabulate et Syn stemma Class.
Ex., plants of
Carex genus.

Otherwise of Di-kunabulate et Di stemma Class.
Ex., plants of
Carex genus.

comprising
a Kalyk glumulum,
containing the separal and areneal spricate Ovula of a single Kalyk glumul-amental kind of plant of Quine et du idola Di-kunabulate et Di stemma Class.
Ex., plants of
Humulus genus.

SECUNDO.

Also containing the glossy apricate Ovula of several Kalyk glumul amental kinds of plants of Char et idum Di-kunabulate et Di-stemma Class.
Ex., plants of
Urtica genus

Also of Di-kunabulate et Syn stemma Class.

or,

INVESTITURIAL IMBRICATE KUNABULUM,

comprising
a Kalyk tegulum,
containing the Kappa-nidulate and fibro-crinulate Ovula of several Kalyk tegul-amental kinds of plants of Oero et quad ida Di-kunabulate et Di stemma Class.
Ex., plants of
Populus genus.

SECUNDO.

Also containing the Kapcell-nidulate and fibro-crinulate Ovula of several Kalyk tegul-amental kinds of plants of Oero et quad ida Di-kunabulate et Di stemma Class.
Ex., plants of
Salix genus.

or,

INVOLUCRAL IMBRICATE KUNABULUM,

comprising
a Kalyk tegulum,
containing the Separal nucleate Ovula of several Kalyk tegul-amental kinds of plants of Do et idum Spath-thekal et Di-kunabulate et Di stemma Class,
Ex., plants of
Cecropia genus.

N.B. Kelenum, from chele, a crab's claw.
Testulum, from testudo, a tortoise.
Tegulate, covered in the manner of tiles.
Imbricate, one laid over another, as scales, in alternate and continual series.
Kunabulum, a cradle.
Kenulum, a small cone.

Or, d

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OF THE SEVERAL KINDS OF FRUCT-AMENTUM.

Comprising the edible Krebrum and Fruct-ovulum constituting the fructum and fruit of the Fruit tree and Fruit plant.

The several kinds of Fruct-amentum are distinguished Primarily as Nuco-domal, Bakko-domal, Hespero-domal, Melo-domal.

NUCO-DOMA,

comprehending

a Drupium Kortextinum;
or,
Zeia amentum,
comprising
a Scaphio-lobal fruct-ovulum;
or,
Di-lobal fruct-ovulum,
constituting the fruit of the
Coconut,
Walnut,
Nut,
Almond.

a Kapsellum Kortinum;
or,
Castan-amentum,
comprising
a Glomme-lobal fruct-ovulum;
or,
Di-lobal fruct-ovulum,
constituting the fruit of the
Chesnut,
Beechnut.

BAKKO-DOMA

comprehending

a Pulpa Druptum;

or,
Alleov-amentum;
comprising
the pulpy fructum
and
Di-lobal fruct-ovulum,
constituting the fruit of the
Plum,
Cherry,
Peach,
Mango,
Godoe ambaloo,
Kodoko ambaloo, H.M.

or,
Alleov-amentum
comprising
the pulpy fructum,
and
mono-lobal fruct-ovulum,
constituting the fruit of the
Date.

a Pulpa-Bakkum;

or,
Uv-amentum;
comprising
the pulpy fructum
and
ovula
constituting the fruit of the
Grape,
Currant,
Gooseberry,
Berberry,
Cranberry,
Elderberry.

or,
Mor-uv-amentum;
comprising
the pulpy fructum
and
ovula
constituting the fruit of the
Mulberry,
Raspberry,
Blackberry,
Strawberry.

HESPERO-DOMA;

comprehending

a Pulpa Foli-uvium;

or,
Citruv-amentum
comprising
the pulpy fructum,
and
di-lobal fruct-ovula
constituting the fruit of the
Orange,
Citron,
Shaddock,
Lime,
Lemon,
Pomegranate,
Mangosteen.

or,
Ficuv-amentum;
comprising
the pulpy fructum
and
ovula,
constituting the fruit of the
Fig,
Pappaw,
Atty aloe,
Itty aloe,
Per aloe,
Ark aloe, H.M.

MELO-DOMA;

comprehending

a Crass-succulent Fructum;
or,
Pom-amentum;
comprising
the glomeral fructum,
and
di-lobal fruct-ovula,
constituting the fruit of the
Quince,
Pear,
Apple,
Haw,
Guava,
Custard apple,
as well as of other Pom-amental
and
Cydoe-amental, Fruit-trees,
and Fruit-plants.

a Crass-succulent Peponum;
or,
Pepon-amentum:
comprising
the ob-glomeral fructum,
and
di-lobal fruct-ovula,
constituting the fruit of the
Gourd,
Melon,
Pumpkin,
Cucumber,
Pine-apple,
as well as of other Pepon-amental,
and
Cucurbit-amental Fruit-trees and Fruit plants.

A SUMMARY COMPENDIUM

OF THE

SCIENCE OF BOTANY.

Comprising synoptical and tabular lists of several systems of arrangement, and methods of classification invented by botanists and philosophers for the purpose of distinguishing the different kinds of Grass, Herb, Tree, Fruit tree, and Fruit plant, or Ab-ovo natal vegetative product.

Multitudinous and innumerable vegetative products of diversified structure and species are distributed throughout the planetary zones and terraqueous regions of our mundane orb: different kinds of Grass, Herb, Tree, Fruit tree, and Fruit plant, or Ab-ovo natal vegetative product being produced and adapted to the different mineral bases of its superficies, according to the peculiar climate, diverse state of the atmosphere, and season of production prevalent in each zone, region, country, territory, and locality.

The philosopher, male or female, who acquires a perfect knowledge of vegetative products, or plants, that is to say, a knowledge of the essential properties, relative nature, constitutional structure, and distinctive fasma of each genus and kind of Grass, Herb, Tree, Fruit tree, and Fruit plant, or Ab-ovo natal vegetative product, as well as a knowledge of the specific and physical diversities of their several constitutive parts, portions, atoms, and ingredient particles, knows the Science of Botany. Therefore, in order that students of both sexes may be enabled to learn and deliver botanical knowledge and science systematically and comprehensively by the medium of theory and logical doctrine, botanists and philosophers have distinguished all vegetative products, or plants, discovered and known into separate Classes, defined, determined, and denominated according to different systems of arrangement, or methods of classification.

Primo.

The natural products of the vegetable kingdom (otherwise, the organical products of the vegetative state of nature) have been distinguished by the Science of Natural Philosophy into ten classes, usually and generally denominated "Natural Classes," defined, determined, and denominated—

1st. From the primary phenomena of material substance and increase.

2nd. From constitutional circumstances of structure and propagation.

3rd. From specific and physical diversities of the several parts, portions, atoms, and ingredient particles of vegetative products or plants.

NAMES OF CLASSES, OR "NATURAL CLASSES."

1. Algæ. 2. Lichenæ. 3. Fungiæ, or funguses. 4. Musci, or mosses. 5. Filices, or ferns. 6. Gramina, or grasses. 7. Herbæ, or herbs. 8. Bulbosæ, or bulbous plants. 9. Palmæ, or palms. 10. Arbores, or trees.

Secundo.

Many eminent botanists and philosophers have either completely, or only partially described and classified the natural products of the vegetable kingdom. Their celebrated names, as also the denominations and definitions of the several famous classes, and different systems, or methods invented by them, are stated and arranged in sequental order. (*See* Famous classes of eminent Botanists.)

NAMES OF EMINENT BOTANISTS AND PHILOSOPHERS.

Cæsalpinus, Morison, Herman, Ray, Knautius, Boerhaave, Tournefort, Camellius, Rivinus, Ruppius, Ludwigius, Pontedera, Magnolius, Linneus, Dillenius, Royen, Haller, Wackendorf, Vaillant, Artedius, Linneus, Laurentius de Jussieu, Linneus, cum multis aliis, as Catesby, Rheede, Millar, Curtis, Milne, born, or celebrated during the present, or fourth century of the modern commercial age and era.

Tertio.

The natural products of the vegetable kingdom (otherwise, the organical products of the vegetative state of nature) have been scientifically and comprehensively described and arranged, according to the theory and doctrine of Linneus, into a Sexual System of twenty-five classes, defined, determined, and denominated according to the number, figure, situation, and proportion of the Stamina and Pistilla. The Stamen is denominated by Linneus, the Male, and defined as an organ (appropriated for the preparation of the Pollen) and derived from the wood. The Pistillum is denominated by Linneus the Female, and defined as an organ (appropriated for the reception of the Pollen), and derived from the pith. According to Dr. Milne, "the Stamen is a slender thread placed around the seed-bud," and "the Pistillum is an erect column, generally placed in the flower, within the Stamina."

The twenty-five classes of the Sexual System are subdivided by Linneus into ordines, genera, and species, according to the natural characters and differences, as well as according to the number, figure, situation, and proportion of all the parts of the fructification. (*See* Scientifical and Classical System of Linneus.)

Quarto.

The natural products of the vegetable kingdom (otherwise, the organical products of the vegetative state of nature) have been described and arranged according to the theory and doctrine of Antonius Laurentius de Jussieu, that is to say,—All plants are arranged primarily into four great collections, or turbæ, videlicet—1. Acotyledones. 2. Monocotyledones. 3. Di-cotyledones. 4. Plantæ incertæ sedis. The four turbæ are subdivided into nineteen classes. Fifteen classes of the primary turbæ comprise 100 ordines, distinguished according as the Stamina are Hypo-gyna, or Epi-gyna, or Peri-gyna. The four remaining classes comprise several kinds of plants, distinguished as Plantæ germine supero, or germine infero, according to the diverse fabric of their monosexual, or con-sexual gemm bud.

The plants of the four great turbæ, or collections, are also distinguished as Apetalæ, Mono-petalæ, Poly-petalæ. (*See* Scientifical and Classical System of De Jussieu.)

"FAMOUS CLASSES" OF EMINENT BOTANISTS.

Terms, definitions, and denominations of several classes, and systems, or methods of arrangement invented by different Botanists and Philosophers from the time of Cæsalpinus unto the time of Linneus.

Primordiulus. Cæsalpinus' system, comprehending ten classes.

Plants described and defined according to several diversities of the basis, root, receptaculum, and flower; also, according to the number of receptacula, and the number of seeds produced.

Class 1. Arbores corculo ex { apice / basi } seminis.

2. Herbæ, defined according to the number of seeds produced, as mono-spermæ, di-spermæ, tetra-spermæ, multi-spermæ.
3. Herbæ mono-coccæ.
4. Herbæ mono-capsulæ et bi-capsulæ.
5. Herbæ fibrosæ, *i.e.*, having fibrous roots.
6. Herbæ cichoraceæ.
7. Herbæ flore communi.
8. Herbæ a-nanthæ et a-spermæ.
9. Herbæ bulbosæ.
10. Herbæ pluribus folliculis (with many follicular receptacula).

Secundiulus. Morison's system, comprising twelve classes.

Plants described as Trees, Herbs, Grasses, and scandentes, and defined according to four or five several modes of flowering; also according to the diversified fabric of the receptaculum and flower; as well as according to the number of receptacula.

11. Arbores.
12. Frutices et suffrutices.
13. Herbæ scandentes.
14. Herbæ leguminosæ et siliquosæ.
15. Herbæ culmiferæ (as grasses).
16. Herbæ { papposæ lactescentes. / umbelliferæ. / corymbiferæ. }
17. Herbæ galeatæ (or corydales).
18. Herbæ tri-coccæ.
19. Herbæ tricapsulares, 4, 5, 6 et multi-capsulares.
20. Herbæ bacciferæ.
21. Herbæ capillares.
22. Heteroclitæ.

Tertiulus. Herman's system, comprising nine classes.

Plants described and defined according as the receptaculum is uncovered, or covered, also, according as the fruit of the tree is dry, or carnose, umbilicated, or non-umbilicated; or otherwise as the tree is iuliferous.

23. Herbæ { gymno-spermæ, comprising 1, 2, 3, 4 et gymno-polyspermæ (uncovered). / angio-spermæ, comprising 1, 2, 3, 4 et multi-capsulares (covered). }

24. Herbæ { gymno-mono-spermæ simplices.
gymno-mono-spermæ compositæ.
25. Herbæ { gymno-di-spermæ stellatæ.
gymno-di-spermæ umbellatæ.
26. Herbæ { gymno-tetra-spermæ asperifoliæ.
gymno-tetra-spermæ verticillatæ.
27. Herbæ apetalæ glumosæ.
28. Herbæ apetalæ calyculatæ.
29. Herbæ nudæ muscosæ.
30. Arbores iuliferæ et fructu sicco.
31. Arbores carnosæ { umbilicatæ, or pomiferæ.
non-umbilicatæ, or bacciferæ.

Quartiulus. Cr. Knautius' system, comprising three classes.

Plants described and defined according to Ray's method.

32. Herbæ mono-petalæ 4, 5, 6 et multi-petalæ et a-petalæ.
33. Staminiæ, *i.e.*, without petals and calyx.
34. Inconspicuæ, or imperceptible.

The 4 petala flowers being also distinguished as { regulares. irregulares. tetra-petala

Quintiulus. Boerhaave's system, comprehending five classes,

And comprising the classes of Herman blended with the classes of Ray and Tournefort.

35. Herbæ mon-angiæ 2, 3, 4, 5, et poly-angiæ.
36. Herbæ { mono-cotyledones bracteatæ.
mono-cotyledones a-petalæ.
37. Herbæ amentaceæ.
38. Arbores rosaceæ.
39. Arbores multi-siliquæ et siliquosæ.

Sextiulus. Ray's system, comprehending six classes.

40. Herbæ submarinæ et fungi, et musci, et capillares.
41. Arbores arundinaceæ, or palms.
42. Plantæ { mono-tyledon *i.e.*, germinating from the seminal root of the harvest seed with— { 1 lobulum & seminal leaf.
co-tyledones { 2 lobula & seminal leaves.
43. Plantæ, having the flower { apart from the fruit.
together with the fruit.
44. Herbæ { siliquosæ / siliculosæ bearing { large and long pods.
small and rotund pods.
45. Herbæ { planipetalæ, comprising the plants named — Lactuca, Leontodon, Tragopogon, &c.
discoideæ, comprising the plants named — Aster, Senecio, Tussilago, &c.
corymbiferæ, comprising the plants named — Heliflos, Taygetes, Bellis, &c.
capitatæ, comprising the plants named — Carduus, Arctium, Dipsacus, &c.

Septiulus. Camellus' system, comprehending one class.

Plants described and defined according to the non-apertural, or multi-apertural fabric of the receptaculum denominated by Camellus pericarpium.

46. Plantæ, Pericarpia a-fora, uni-fora, bi-fora, 3, 4, 5, 6, et plura-fora.

Octiulus. Rivinus' system, comprising two classes, one simplex, one duplex and complex.

Plants described and defined (including Ruppius' improved classes), according to the number and regularity, or irregularity, of the flower petals, also according to several diversities of the receptaculum.

47. Simplices { regulares / irregulares } mono-petalæ, 2, 3, 4, 5, 6, et multi-petalæ.
47. Compositæ ex flore { regulari. / irregulari. / regulari et irregulari.

48. Plantæ, having the pericarpium, or receptaculum { uncovered. / dry, or / carnose.

Noniulus. Cn. Knautius' system, or method, comprising a duplex and complex class.

Plants described and defined according to the uniformity and difformity of the flower petals.

49. Simplices mono-petali { uniformes et 2, 3, 4, 5, 6 et poly-petali. / difformes et 2, 3, 4, 5, 6 et poly-petali.
also { mono-petali aggregati uniformes. / mono-petali aggregati difformes. / mono-petali aggregati uniformes-difformes.

Deciulus. Ludwigius' system, or method, comprehending one class,

And comprising the classes of Linneus' "Sexual System" diversified.

50. Plantæ Mon-antheræ, mono-styli, Di-antheræ, di-styli, Tri-antheræ, tri-styli, Pent-antheræ, tetra-styli, Poly-antheræ, poly-styli.

Undeciulus. Tournefort's system, comprising fourteen classes.

Plants described and defined according to the diversified fabric of the flower, and the number of its petals; also, according as flowers are simplices, compositæ, a-petalæ, an-anthæ, or papilionaceæ.

51. Herbæ Simplices mono-petalæ { campaniformes. / infundibuliformes. / labiatæ. / anomalæ.

52. Herbæ Simplices poly-petalæ { cruciformes. / rosaceæ. / umbellatæ. / caryophyllaceæ. / liliaceæ. / papilionaceæ. / anomalæ.

53. Herbæ compositæ { flosculosæ. / semi-flosculosæ. / radiatæ.
54. Arbores papilionaceæ.

Dodeciulus. Pontedera's system, comprehending one class,

Comprising and combining the classes of Rivinus and Tournefort.

55. Plantæ gemmis carentes lingualatæ.

Decimus-tertiulus. Magnolius' system, comprehending five classes.

Plants described and defined according to the number of the flower petals; also, according as the Calyx is external, or internal, or otherwise external and internal; or otherwise external and internal both.

56. Herbæ calyce externo includente florem { ignotum. / stamineum. / mono-petalum. / poly-petalum. / compositum.
57. Herbæ calyce externo sustinente florem { mono-petalum. / poly-petalum.
58. Herbæ calyce interno tantum.
59. Herbæ calyce externo internoque flore { mono-petalo. / di-tri-petalo. / tetra-petalo. / poly-petalo.
60. Arbores calyce { externo tantum. / interno tantum. / externo internoque simul.

Decimus-quartiulus. Linneus' system, or methodus calycina, comprising seven classes.

Plants described and defined according to specific and physical diversities of the Calyx.

61. Calyx { spathaceus. / glumaceus. / amentaceus.
62. Calyx { umbellatus. / communis. / duplicatus.
63. Calyx { floribundus. / coronatus.
64. Calyx { anomalus. / difformis.
65. Calyx caduceus.
66. Calyx persistens { uniformis { mono-petalus. / poly-petalus. / difformis { mono-petalus. / poly-petalus.
67. Calyx { incompletus. / a-petalus. / nudus.

Decimus-quintiulus. Haller's system, comprehending one class.

Plants described and defined according to diversities of arithmetical proportion between the stamina and petals of the flower.

68. Plantæ
- isostemones, having an equal number of stamina and petals.
- di-plostemones, having twice as many stamina as petals.
- staminibus sesquialteris, having half as many more stamina as petals.
- staminibus 4 ringentes, having four stamina and gaping corolla.
- staminibus sesquitertiis, having one-third part more stamina than petals.
- mejestemones, having a lesser number of stamina than petals.
- poly-stemones, having many more stamina than petals.

69. Compositæ, comprising compositæ and aggregatæ.

Decimus-sextiulus. Royen's system, or natural method, comprising eight classes.

Plants described and defined according to specific and physical diversities of the several parts, or portions, of the receptaculum et receptacula of the fructification.

70. Lilia.
71. Ringentes.
72. Columniferæ.
73. Palmæ.
74. Lythophyti.

75. Plantæ
- calycifloræ.
- fructifloræ.

76. Plantæ
- olygantheræ.
- diplos-antheræ.
- poly-antheræ.
- crypt-antheræ.

77. Plantæ
- amentaceæ.
- umbellatæ.
- compositæ.
- aggregatæ.

Decimus-septiulus. Wackendorf's system (from Haller), comprising two classes.

Plants described and defined according to arithmetical diversities of the stamina and petala.

78 Homoio diperianthæ. Plants (with seed vessels). The number of stamina, petala, and vestula equal.

79. Anomoio diperianthæ. Plants (with seed vessels). The number of stamina and petala equal.

Decimus-octiulus. Vaillant's system, or complex method of Ordines.

Plants described and defined according to several diversities of the Calyx; as well as according to several diversities of the coronula of the seed contained therein.

80. Calyx
- simplex
- imbricatus,
- calyculatus

receptaculum
- nudum
- paleaceum,
- pilosum

coronula
- plumosa.
- nulla.
- pilosa.

Decimus-noniulus. Artedius' system, or method, comprehending one class.

Plants described and defined according to diversities of the Involucrum.

81. Involucrum { universale et partiale. / partiale tantum. / nullum.

Vigesimus et Vicesimus { *et Vigintiulus Linneus'* { *System of Ordines Naturales, or Fragmenta Methodi Naturalis, comprising twenty classes.*

Plants described and defined according to the relative nature, as well as specific and physical diversities of the several parts and portions of different kinds of plants.

82. Palmæ.	89. Piperitæ.	96. Rotaceæ.
83. Calamariæ.	90. Cucurbitaceæ.	97. Contortæ.
84. Spathaceæ.	91. Putamineæ.	98. Bicornes.
85. Succulentæ.	92. Coniferæ.	99. Coadunatæ.
86. Senticosæ.	93. Rheadæ.	100. Inundatæ.
87. Ensatæ.	94. Corydales.	101. Algæ.
88. Sarmentosæ.	95. Gruinales.	

To these famous classes may be added the two classes of Theophrastus "Gramina" and "Graminibus affines."

THE SCIENTIFICAL AND CLASSICAL SYSTEM OF LINNEUS DENOMINATED THE SEXUAL SYSTEM.

The several Classes defined, determined, and denominated according to the number, figure, situation, and proportion of the Stamina and Pistilla.

No.	Name of each Class.	Number of stamina in each Class.	Number of pistilla in each Class.	In the 13 primary classes, each ordo, according to the number of its pistilla, denominated mono gynia, di-gynia, tri-gynia, tetra-gynia, penta-gynia, hexa-gynia, hepta-gynia, poly-gynia.
1	Monandria	1 stamen	and 1, 2	in the same Hermaphrodital flower.
2	Diandria	2 stamina	„ 1, 2, 3	„
3	Triandria	3 stamina	„ 1, 2, 3	„
4	Tetandria	4 stamina	„ 1, 2, 3, 4	„
5	Pentandria	5 stamina	„ 1, 2, 3, 4, 5, et poly	„
6	Hexandria	6 stamina	„ 1, 2, 3, 4, 5, et poly	„
7	Heptandria	7 stamina	„ 1, 2, 3, 4 . . 7	„
8	Octandria	8 stamina	„ 1, 2, 3, 4 . .	„
9	Enneandria	9 stamina	„ 1, 2, 3 . . 6	„
10	Decandria	10 stamina	„ 1, 2, 3 . 5 .	„
11	Dodecandria	12 to 19 stamina	„ 1, 2, 3, 4, 5, et poly	„
12	Icosandria	20, or more stamina inserted on the calyx	„ 1, 2, 3, 4, 5, et poly	in the same Hermaphrodital flower.
13	Poly-andria	20 to 1000 stamina inserted on the receptacle	„ 1, 2, 3, 4, 5, 6, et poly	in the same Hermaphrodital flower.
14	Di-dynamia or 2 powers	4 stamina { 2 stamina longer / 2 stamina shorter }	and 1	in the same Hermaphrodital flower.
		Di-dynamia	comprises 2 ordines Ex	{ Gymnospermia, having the seeds uncovered. / Angiospermia, having the seeds covered.
15	Tetra-dynamia or 4 powers	6 stamina { 4 stamina longer / 2 stamina shorter }	and 1	in the same Hermaphrodital flower.
		Tetra-dynamia	comprises 2 ordines Ex	{ Siliculosa, having short, rotund, or oblate pods. / Siliquosa, having long cylindrical pods.
16	Mon-adelphia or one brotherhood	Stamina united by their filaments into one body	and 1, 2, 3 . 5	in the same Hermaphrodital flower.
		Mon-adelphia	comprises 8 ordines Ex	Tri-andria, pent-andria, hept-andria, oct-andria dec-andria, endec-andria, dodec-andria, poly-andria.
17	Di-adelphia or two brotherhoods	Stamina united by their filaments into two bodies	and 1	in the same Hermaphrodital flower.
		Di-adelphia	comprises 4 ordines Ex	Pent-andria, hex-andria, oct-andria, dec-andria,
18	Poly-adelphia or many brotherhoods	Stamina united by their filaments into three or more bodies	and 1, 2, 3 . 5	in the same Hermaphrodital flower.
		Poly-adelphia	comprises 4 ordines Ex	Pent-andria, dodec-andria, icos-andria, poly-andria.
19	Syngenesia, or confederate males	Stamina connected by the anthers forming a cylinder; seldom by the filaments	and 1	in the same Hermaphodital flower.
		Syngenesia	comprises 6 ordines Ex	Polygamia equalis, polygamia superflua, polygamia frustranea, polygamia necessaria, polygamia segregata, monogamia.
20	Gynandria, or feminine males	Stamina inserted on the pistilla	and 1, 2, 3 . . .	in the same Hermaphrodital flower.
		Gynandria	comprises 9 ordines Ex	Di-andria, tri-andria, tetr-andria, pent-andria, hex-andria, oct-andria, dec-andria, dodec-andria, poly-andria.
21	Monoecia, or one house	Male flowers and female flowers on the same plant	and 1, 2, 3, 4	
		Monoecia	comprises 11 ordines Ex	Mon-andria, di-andria, tri-andria, tetr-andria, pent-andria, hex-andria, hept-andria, poly-andria, mon-adelphia, syngenesia, gyn-andria.
22	Dioecia, or two houses	Male flowers and female flowers on different plants	and 1, 2, 3, 4, 5, 6	
		Dioecia	comprises 15 ordines Ex	Mon-andria, di-andria, tri-andria, tetr-andria, pent-andria, hex-andria, oct-andria, ennea-andria, dec-andria, dodec-andria, icos-andria, poly-andria, mono-adelphia, syngenesia, gyn-andria.
23	Polygamia, or many marriages	Hermaphrodital flowers and male flowers, or female flowers in the same species	and 1, 2, 3	
		Polygamia comprises	3 { ordines / or / houses } Ex	Mon-oecia, di-oecia, tri-oecia.
24	Cryptogamia or secret marriages	Flowers concealed within the fruit, or clandestinely		
		Cryptogamia	comprises 4 ordines Ex	Filices, musci, algæ, fungi.
25	Palmæ			

THE SCIENTIFICAL AND CLASSICAL SYSTEM OF ANTONIUS LAURENTIUS DE JUSSIEU,

ENTITLED

"Genera plantarum secundum ordines naturales disposita."

Juxta methodum in horto regio parisiensi exaratam.

(*Turba prima, comprehending one class.*)

PLANTÆ A-COTYLEDONES.

Corculum seminis cotyledonibus destitutum.

Class 1. Comprising—1. Fungi; 2. Algæ; 3. Hepaticæ; 4 Musci; 5. Filices; 6. Naiades.

(*Turba secunda, comprehending three classes.*)

PLANTÆ MONO-COTYLEDONES.

Corculum seminis ex radicula plumula et unico lobo seu cotyledone constans.

2. Stamina hypo-gyna, comprising—7. Aroidiæ; 8. Typheæ; 9. Cyperoideæ; 10. Graminiæ.

3. Stamina peri-gyna, comprising—11. Palmæ; 12. Asparagi; 13. Junci; 14. Lilia; 15. Bromeliæ; 16. Asphodeli; 17. Narcissi; 18. Irides.

4. Stamina epi-gyna, comprising—19. Musæ; 20. Cannæ; 21. Orchideæ; 22. Hydrocharidæ.

(*Turba tertia, comprehending eleven classes.*)

PLANTÆ DI-COTYLEDONES.

Corculum seminis ex radicula plumula et lobo, seu cotyledone gemino constans.

5. Apetalæ Stamina epi-gyna, comprising 23 Aristolochiæ.

6. Apetalæ Stamina peri-gyna, comprising—24. Elæagni; 25. Thymeliæ; 26. Proteæ; 27. Lauri; 28. Polygoneæ; 29. Atriplices.

7. Apetalæ Stamina hypo-gyna, comprising — 30. Amaranthi; 31. Plantagenes; 32. Nyctagynes; 33. Plumbagines.

8. Mono-petalæ corolla hypo-gyna, comprising—34. Lysimachiæ; 35. Pediculares; 36. Acanthi; 37. Jasminiæ; 38. Vitices; 39. Labiatæ; 40. Scrophulariæ; 41. Solaneæ; 42. Boraginiæ; 43. Convolvuli; 44. Polemoni; 45. Bignoniæ; 46. Gentianæ; 47. Apociniæ; 48. Sopotæ.

9. Mono-petalæ corolla peri-gyna, comprising — 49. Guiacanæ; 50. Rhododendra; 51. Ericæ; 52. Campanulaceæ.

10. Mono-petalæ corolla epi-gyna Antheræ connatæ, comprising—53. Chicoraceæ; 54. Cinarocephalæ; 55. Corymbiferæ.

11. Mono-petalæ corolla epi-gyna Antheræ distinctæ, comprising—56. Dipsaceæ; 57. Rubiaceæ; 58. Caprifoliæ.

12. Poly-petalæ Stamina epi-gyna, comprising—59. Aralia; 60. Umbelliferæ.

13. Poly-petalæ Stamina hypo-gyna, comprising—61. Ranunculaceæ; 62. Papaveraceæ; 63. Cruciferæ; 64. Capparidæ; 65. Sapindi; 66. Acera; 67. Malpighiæ; 68. Hyperica; 69. Guttiferæ; 70. Aurantia; 71. Meliæ;

72. Vites; 73. Gerania; 74. Malvaceæ; 75. Magnoliæ; 76. Annonæ; 77. Meni-spermæ; 78. Berberides; 79. Tiliaces; 80. Cisti; 81. Rutaceæ; 82. Caryophylleæ.

14. Poly-petalæ Stamina peri-gyna, comprising—83. Sempervivæ; 84. Saxifraga; 85. Cacti; 86. Portulaceæ; 87. Ficoideæ; 88. Onagræ; 89. Myrti; 90. Melastomæ; 91. Salicorniæ; 92. Rosaceæ; 93. Leguminosæ; 94. Terebintaceæ; 95. Rhamni.

15. Apelatæ, seu a pistillo segregratæ, comprising—96. Euphorbiæ; 97. Cucurbitaceæ; 98. Urticæ; 99. Amentaceæ; 100. Coniferæ.

(*Turba quarta, comprehending four classes.*)

PLANTÆ INCERTÆ SEDIS.

DISTINGUISHED AS

16. Mono-petalæ
- germine supero — Ex., Amasonia, Bassonia, Badula, Bladhia, Ceodes, Codon, Dorœna, Eriphia, Galax, Galipœa, Geniostoma, Montabia, Maba, Mæscharia, Monnieria, Lerchea, Penæa, Porana, Rapulia, Roporea, Saraca, Tapura, Stilbe, Timbutela, Willichia, Weigela.
- germine infero — Ex., Phyllachne, Fostera, Chloranthus, Pongatium.

17. Poly-petalæ
- germine supero — Ex., Dialium, Azima, Agathophyllum, Aldrovanda, Astronium, Calodendrum, Dobera, Embelia, Dionæa, Crinodendrum, Comersonia, Caltha, Caryocar, Gluta, Geruina, Krameria, Lophantus, Melicytus, Lindera, Melicope, Nandinia, Oriza, Penantia, Reridula, Pyrola, Skimmia, Qualea, Salacia, Sauvagesia, Schæfferia, Ruyschia, Sorubea, Soulanea, Trilix, Sassia, Vochsia.
- germine infero — Ex., Aphyteia, Adenia, Bignonia, Fontelia, Strumpfia.

18.
- Apetalæ
  - germine supero — Ex., Ariba, Aquilaria, Amanoa, Cassytha, Coriaria, Capura, Cometes, Meborea, Scopolia, Tomex.
  - germine infero — Ex., Catonia, Gonocarpus, Lincolnia, Trewia, Mniarum.
- Hermaphroditæ

19.
- Apetalæ
  - germine supero — Ex., Ascarina, Antidesma, Glochidion, Pandanus, Batis, Nepenthes, Tonina, Siparuna, Trophis.
  - germine infero — Ex., Cynomorium, Datisca.
- Diclines

QUINTO.

In this literary and philosophical treatise the theory and doctrine of botanical knowledge and science is delivered according to an Iulian system of arrangement, and Julian method of classification ; that is to say, vegetative products, or plants, otherwise the organical products of the vegetative state of nature, are described and distinguished into 5 Primordinal classes, 15 Secundinal, or veget-organical classes, 76 Trinal, or Sexdomal classes, 44 Quaternal, or Fructification classes, and 75 Quinal, or General Botanical classes, defined, determined, and denominated according to various processes of propagation and procreation, or reproduction and construction happening during the veget-organical existence of the plant, or vegetative product.

1. From the primary phenomena of material substance, as well as of vegetative increase and multiplication.

2. From several constitutional circumstances of veget-organical structure, as well as of vegetative propagation.

3. From the process of the germination and production of the stem, whether its shaft arises from the seminal root of the harvest seed, or cereal ovulum sown and disseminated annually ; or otherwise arises from the placentum of the supra-fossilineal bulboum of the Bulbo-stem herba : or otherwise arises from the placentum of the subter-fossilineal multiform radix of the Radikalia herba ; or otherwise arises from the placentum of the ligneous Arborescent plant after its original stem has been felled by means of woodman's craft.

4. From the process of the germination, radication, production, and increase of the ligneous roots, or radical limbula et membranula of the Tree and Fruit tree ; as well as from the process of the regermination, remutation, and renewal of fibro-membranous radikal limbula et membranula proceeding from the stirpal placentum of the Bulbo-stem herba ; or otherwise proceeding from the knobboal placentum, or organical radix of the Radikalia herba.

5. From the process of the vegetant growth, and multiplication of the fibro-membranous and pytho-membranous annual stem, or stems of uter, or either herba.

6. From the process of the vegetant growth and increase of the interior ligneous krebrum, or wood ; as well as of its exterior kortex and bark, constituting the material substance and fabric of the permanent stem, or timber trunk of the Tree and Fruit tree.

7. From the process of the germination and expansion, increase and multiplication of the several leaves, fronds, frondula, branches, boughs, and other organical limbs, limbula, and membranula, divergent and dependent from the shaft of the stem ; or otherwise produced and emanant from the apex of the stem ; or otherwise produced and emanant from the radix, or root, and divergent from the basis of the stem, or vegetative product.

8. From several diversified ways and modes of gemmation ; that is to say, from the varied process of the production, allocation, disposition, arrangement, and envelopment of the Fructification buds (either singly

and separately, or together), and comprehending the kum buds, or sporamental buds of Sporigerent plants, as well as the gemm buds of Frumental and Floramental plants, or Frugiferent and Fructugerent vegetative products.

9. From the process of the contingent conflux, involution, and renewal of vegetative essence and existence by means of the gemmation, congemmation, and conkunabulation of diversified organical limbula et membranula contained within the several kalyces, or fructification buds; and constituting the active and passive principles of regenerative vitality and duality.

10. From the process of the procreation and production of the cereal ovula of the several kinds of Grass, Herb, Tree, Fruit tree, Fruit plant, and Ab-ovo-natal vegetative product annually.

11. From the process of the procreation and production of the annual receptacula, axenta, basilia, cymarula, vestamenta, periferea, involucra, et fructa, constituting the kalyces et kunabula, supporting, encircling, surrounding, enclosing, containing, and enveloping the embryo ovula of vegetative products, or plants.

12. From the process of the procreation, and production, and maturation, annually of the Fruct-ovulum and Fructum, or melobidium, constituting the esculent krebum, or edible portion of the Fruit of Hesperian and Oriental fruit trees of the grove, and orchard, and garden.

13. From the process of the regermination and reproduction, or renewal of the supra-fossilineal bulboum of the Bulbo-stem herba.

14. From the process of the regermination and reproduction, or renewal of the subter-fossilineal radix of the Radikalia herba; as well as from the process of the continual increase of its krebrum, or material substance and fabric.

15. From the process of the annual regermination and reproduction, or renewal of germala, or germ buds from the stem and branches of the Tree and Fruit tree.

16. From the several diversified ways and modes of the patefaction, and diruption of the organical Kalyces and Amenta, or Fructamenta; for the purpose of disseminating, dispersing, and distributing the harvest seeds, or cereal-ovula of the Grass, Herb, Tree, Fruit tree, and Fruit plant, or Ab-ovo-natal vegetative product.

OF THE FIVE PRIMORDINAL BOTANICAL CLASSES.

The Primordinal Botanical Classes, according to the ancient Hebrew Scriptures of the Holy Bible, are—1. Grasses; 2. Herbs; 3. Trees; 4. Fruit trees; 5. Ab-ovo-natal plants, or vegetative products.

OF THE FIFTEEN VEGET-ORGANICAL, OR SECUNDINAL BOTANICAL CLASSES.

Distinguishing Vegetative products, or plants, according to an Iulian system of arrangement, and Julian method of classification; and comprehending the mode of propagation as well as the constitutional circumstances, and peculiar organical structure of the plants of each class.

SECUNDINAL BOTANICAL CLASSES.

No.	Characteristic terms.	Denominations.	Definitions, or distinctive fasma and kind.
1	Marinæ	Algæ plantæ	Sporigerentes, having kum buds and spor-amenta.
2	Ex krebrescentes	Oprinæ plantæ	Sporigerentes ,, ,,
3	Cespitosæ et a fallæ	Fungiæ plantæ	Sporigerentes ,, ,,
4	Cespitosæ et viticulatæ	Mossæ plantæ	Sporigerentes ,, ,,
5	Radikaliæ et frondosæ	Frondo-fernæ plantæ	Sporigerentes ,, ,,
6	Cespitosæ et geniculatæ	Graminiæ plantæ	Having culmi-spikulate and glumal frux-amenta, or frumenta.
7	Knobbo-placental	Radikaliæ herbæ	Having coronal et tyaral; also axiliar and terminal and multi-vinkulate gemm buds and frux-amenta.
8	Di-placental	Bulbo-stem herbæ	Having capitular et plura capitular, also choro-vinculate gemm buds and frux-amenta.
9	Apo-frondosæ	Palmæ plantæ, or Palma frond trees and fruit trees	Having spadithekal and capitular, or multi-choro-vinculate amenta and fruct-amenta.
10	Fallææ et frondulatæ	Ramosæ arbores	Having rami-loculate, or axiliar and multi-terminal gemm buds and frux-amenta.
11	Fallææ et frondulatæ	Ramosæ plantæ	Fructugerentes, having rami-loculate, or axiliar and terminal gemm buds and fruct-amenta.
12	Proserpinant et capriolar	Vineæ plantæ	Having axiliar and terminal gemm buds and frux-amenta.
13	Radikaliæ et frondosæ	Stirpetiolatæ plantæ	Having peri-frond et inter-frond gemm buds and frux-amenta.
14	Erectæ et fallææ	Ab-ovo-natæ plantæ	Having thyrsiulate gemm buds and frux-amenta.
15	Aquarinæ et alluviæ	Palustrinæ	Natal and vegetant in ponds and pools of rain water.
		Lacrinæ plantæ	Natal and abiding in lakes.
		Fluvirinæ	Natal and abiding within the tide stream.

DESCRIPTIO.

Or a description specifying the diverse organical and constitutional structure, as well as the material substance and fabric of the vegetative products, or plants of each Secundinal Botanical class.

1. *Algæ plantæ, sporigerentes;* comprising marine vegetative products, having several verdant and fibro-succulent fallæal membrula, frond leaves, and membranula destitute of a stem, or stems.

The several kum buds and spor-amenta of Algæ plantæ are produced from the stirpal, axiliar, and terminal portions of the plant; otherwise produced from and disposed regularly, or irregularly, upon the superficies of the fibro-laminate, fibro-fimbrulate, fibro-crinulate, or varicose limbula, and visco-gelatinous membranes constituting their organical structure. The numerical indices of regenerative vitality, as well as the embryo spora contained in the several spor-amental kalyces of Algæ plantæ, are latebral and imperceptible.

Algæ plantæ are distinguished as—1. Visco-gelatinous et Fallæ-organical, or Tuberculatæ Algæ; 2. Articulatæ et Raditurial, or Stirpe-thekal Algæ.

Of the Visco-gelatinous et Fallæ-organical Algæ; otherwise wrack, or sea weeds, comprising plants of—

Ulva genus, Foliatio et Gemmatio. The material substance and fabric of vegetative products named Ulva comprises and consists of visco-gelatinous and transparent membranous krebrum, having the kum buds and spor-amenta sparginal upon its superficies.

Fucus genus, Foliatio. The verdant and coloured frond leaves, or fallæal limbula of plants of Fucus genus are elongated and laminate; or otherwise multi-varicose and fimbrulate, *i.e.*, the margins, or rims of the viscid membranula of the plant are crisped, curled, laciniate, fretted, fibro-crinulate, or much varied.

Gemmatio. The Tuberculate kum buds and spor-amenta are produced from the axiliar and terminal portions; or otherwise are sparginal, regularly or irregularly, upon the superficies of the several laminal, or varicose frondeal leaves and membranula.

Of the Articulatæ et Raditurial, or Stirpe-thekal Algæ.

Conferva genus, Foliatio. The material substance and fabric of the slender fibro-crinulate limbula constituting the Raditurial frond leaves of plants of Conferva genus, are either geniculate and divided into distinct portions, or otherwise have a continuous and capillary fabric.

Gemmatio. The spor-amenta are produced at the articulate junctura; otherwise, are lineal and terminal.

Isoetes genus, Foliatio. The Raditurial frond leaves of plants of Isoetes genus are grasslike, but partite, or divided by transverse junctions, or collaminate junctura.

Gemmatio. The spor-amenta of plants of Isoetes genus are produced from the stirpe-thekal, or radikal and placental portions of the leaves.

To these may be added plants of Pilularia genus, and Marsilea genus, genus, and Zostera genus.

2. *Oprinæ plantæ, sporigerentes;* comprising Ex krebrescent vegeta-

tive products, or plants, produced and emanant upon the humid surface of bark, wood, stones, rocks, bones, &c. Otherwise produced from the surface of the ground when saturated with moisture, and often vegetating abundantly in the cold regions of Lapland. The numerical indices et membranula are latebral and imperceptible.

Oprinæ plantæ are distinguished as—1. Cespe-fallæ et sparginal oprinæ ; 2. Cespe-fallæ et stipulatæ oprinæ ; 3. Divarical et tuberculatæ oprinæ.

Cespe-fallæ et sparginal oprinæ plantæ, Foliatio et Gemmatio. The fallæal limbula of Sparginal oprinæ plantæ vegetate contiguously together upon the basis of various substances of the terraqueous superficies, and cover its surface with a thin layer of fibro-membranous krebrum supporting the sparginal, or scattered spor-amenta of its fructification—Ex., Plants of Blasia genus.

Otherwise, Cespe-fallæ et sparginal oprinæ plantæ, increase laterally by means of roots, or radical membranula, produced from the under surface of the frond leaves. The spor-amenta being supported on the hollow surface of the frond leaves, as exemplified in plants of Riccia genus.

Otherwise, the spor-amenta being produced from the terminal portions of the frond leaves—Ex., Plants of Targiona genus.

Cespe-fallæ et stipulatæ oprinæ plantæ, Foliatio et Gemmatio. Stipulatæ oprinæ plantæ comprise plants having spor-amenta produced from the apex, or terminal portion of a minute stipulus—Ex., Plants of Marchantia genus, Anthoceros genus.

Divarical et Tuberculatæ oprinæ plantæ. Are vegetative products destitute of a stem, or stems ; the material substance and fabric of the plant comprising numerous varicose and irregularly divergent frondose membranula, having a visco-succulent consistency and texture.

Gemmatio. The tuberculate spor-amenta are supported by the terminal portions of the frondose vegetative product—Ex., Plants of Lichen genus.

Plants of Mucor genus, Tremella genus, Clethrus genus, Helvella genus, Peziza genus may also be described as Oprinal vegetative products.

Mucor, or mould. Described by Linneus as a fungia planta, produced with stiped vesicles, containing numerous seeds (or spora). Plants of Mucor genus are most frequently excrescent from rotten, moist, or decaying animal and vegetal substances.

Tremella. Described by Linneus as a fungia planta, or vegetative product, pellucid, membranous, gelatinous, leafy, and differing from plants of Lichen genus, in the tubercles and targets not being obvious.

Clethrus. Decribed by Linneus as a fungia planta, or vegetative product, consisting of a netted, windowed, hollow body ; the ramifications everywhere connected.

Helvella. Described by Linneus as a fungia planta, or vegetative product, above and below polished, top shape.

Peziza (or kortinal kind of Oprina planta). Described by Linneus as a sessinal fungia planta, or bell form, fibro-membranous vegetative product of a tenacious, coriaceous, visco-laminose texture and con-

sistence excrescent from the bark of timber trees. The spor-amenta not always obvious to sight.

3. *Fungiæ plantæ, sporigerentes.* Comprising circumlimbulate vegetative products, destitute of leaves, or verdant fallæal membrula. Fungiæ plantæ vegetate either supra fossilum, or subter fossilum. The subter fossilum kinds of plants are groopial. The supra fossilum kinds of plants are turba-stitial, or otherwise cyclo-stitial, and vegetate in a circular series. The Stipulus, or short stem of the Fungia planta supports around the apex and axentum of its shaft, a radial circum-divergent kalyx, or terminal kunabulate fructification bud; the series of spor-amenta containing the embryo sporula being disposed and arranged intermedially between the telaminal webs, or fimbrulate membranula dividing its globular, cetral, conoform, or cupola form kalyx internally.

The numerical indices, as well as the embryo spora, of Fungiæ plantæ are latebral and imperceptible; while the material substance and fabric of the entire vegetative product comprises and consists of a light, soft, elastic, edible krebrum (populatim, the mushroom). Also of the Fungia class are the greater and lesser toadstools. Plants of the toadstool species have a lurid hue; the koriaceous visco-membranous krebrum, or succulent sappa, constituting their material substance and vegetal fabric being poisonous.

Fungiæ plantæ are distinguished as—1. Orbinal; 2. Kupo-stipulatæ; 3. Stirpe-limbulatæ.

Orbinal fungiæ plantæ; comprise the truffle and plants of Lycoperdon genus.

Kupo-stipulatæ Fungiæ plantæ; comprise plants of Agaricus genus, of Boletus genus, having fibro-membranous roots, or slender fibro-reticulated radical membranula; as well as plants of Hydnum genus, having a conoform imbricated root.

Stirpe-limbulatæ Fungiæ plantæ; comprise plants of Phallus genus, of Clavaria genus. The stirpal, or placental portion of the crass-stipulus and slendro-stipulus of the Fungia vegetative product being surrounded by a fibro-membranous sheath.

4. *Mossæ plantæ, sporigerentes;* comprising cespitose and erect, or proserpinant and viticulate vegetative products of diminutive structure, produced and vegetant in the water upon a submersed basis. Otherwise produced and vegetant upon humid stones, timber, walls, &c. Otherwise frequently intermingled with the grasses of the field. The kum buds, or fructification buds of Mossæ plantæ are produced and supported by the several divergent and terminal fibro-crinulate, or fibro-fimbrulate fallæal limbula et membranula constituting their organical structure. Otherwise, a slender semi-frondulate stem, or stemlet of extreme tenuity is terminated by an operculate spor-amental kalyx, containing the minute embryo spora latebral and imperceptible, as well as the numerical indices, or organical membranula of their regenerative vitality.

Erectæ Mossæ plantæ comprise vegetative products of—

Byssus genus; each cespe-crinulate limbulum being of extreme tenuity.

Buxhaumia genus; each stirpe-fallæal stemlet supporting an apo-terminal spor-amentum.

Mnium genus; ditto ditto ditto

Sphagnum genus; omnino-fallæal, and supporting terminal spor-amenta.

Splachnum genus; omnino-fallæal, and supporting terminal spor-amenta.

Polytrichum genus; raditural; each semi-fallæal stemlet supporting a terminal spor-amentum.

Viticulatæ Mossæ plantæ comprise vegetative products of—

Lycopodium genus; the frond stalks omnino-fallæal, and supporting terminal and spikulate spor-amenta.

Phascum genus, or viticulate et reptant moss; the omnino-fallæal frond stalks, or raditural fronds, supporting centro-sessile spor-amenta.

Fontinalis genus, or fluitant moss; each omnino-fallæal frond stalk supporting several axiliar spor-amenta.

Jungermannia genus; each terminal stemlet of each omnino-fallæal frond stalk supporting an apo-terminal spor-amentum.

Hypnum genus; each axiliar stemlet supporting an apo-terminal spor-amentum.

5. *Frondo-fernæ plantæ, sporigentes.* Comprising frondose plants, or vegetative products, having one, or many raditurial fronds, or frond leaves produced either from the placentum of a tuberral radix, or crebrescent root. Otherwise, produced from the terminal portion of a stipulus, or short fibro-membranous frond stem.

The several kum buds, and spor-amenta of the fructification of Frondo-fernæ plantæ, are either supra frond and equi-sparginal, being produced and distributed over the pagænal surface of the fronds; or axiliar, being produced from the intermedial or terminal axils of the fronds. Otherwise the spor-amenta are spikulate and plura spikulate, or multi-sessinal and contiguous, being produced from the terminal portion, or portions of the frond stalks, or stipulus.

The numerical indices, as well as the embryo spora, of the fructification of Frondo-fernæ plantæ, are latebral and imperceptible.

FRONDO-FERNÆ PLANTÆ

Are distinguished as—1. Raditurial; 2. Articulatæ; 3. Stipulatæ—

Of Raditurial Frondo-fernæ plantæ, having fronds produced from the radix, or root, without an intermedial stem, or stems, and each frond of the plant being monopagænal, or multipagænal.

OF THE SEVERAL KINDS OF RADITURIAL FRONDO-FERNÆ PLANTÆ, HAVING MONO-PAGÆNAL FRONDS, COMPRISING PLANTS OF

Asplenium genus (marginikum), Foliatio. The mono-pagænal frond leaves of plants of Asplenium genus are long and wide, and the margin of each frond leaf is crisped, curled, or fretted.

Gemmatio. The several sporul-amenta, or sets of kum buds, are

produced and disposed along the varicose margin, or rims of the frond leaf.

Hemionitis genus (transfallikum), Foliatio. The mono-pagænal frond leaves of plants of Hemionitis genus are long and wide, and the margin of each frond leaf is entire.

Gemmatio. The linear sets of kum buds, or spor-amenta, are arranged longitudinally and at intervals between the diagonal sets of fibrulets, each parallel sporul-amentum occupying more than half the length of the fibrulets.

Lonchitis genus (luna fallikum), Foliatio. The mono-pagænal frond leaves of plants of Lonchitis genus are luna-form, or moonletted.

Gemmatio. The linear sets of kum buds, or sporul-amenta, are arranged irradially. Each sporul-amentum, or linear set occupying more than half the length of the fibrulets.

OF THE SEVERAL KINDS OF RADITURIAL FRONDO-FERNÆ PLANTÆ HAVING MULTI-PAGÆNAL FRONDS, COMPRISING PLANTS OF

Polypodium genus (fernikum), Foliatio. The frond leaves of plants of Polypodium genus are long, entire, diparal, diagonal, and sessinal; otherwise, the pagænal portions of each frond are partite membranula, and not separate membrula.

Gemmatio. The several separal, equi-sparginal kum buds, or spor-amenta, are arranged in a double series, and terminate the inner and opposite transverse fibrulets divergent from the intermedial fibrulum of each frond leaf. One kum bud to each inner transverse fibrulet.

Parechnum genus (transilikum), Foliatio. The several leaves of each multi-pagænal frond of plants of Parechnum genus are long, entire, diagonal, and alternately arranged.

Gemmatio. The linear sets of kum buds, or sporul-amenta, are arranged in parallel series along the inner transverse fibrulets divergent from the intermedial fibrulum of each frond leaf. Each parallel set of kum buds occupies the whole length of the fibrulet.

Blechnum genus (parallikum), Foliatio. The several leaves of each multi-pagænal frond of plants of Blechnum genus are long, and rather narrow, sessinal, and almost entirely omnino-reminal.

Gemmatio. The linear sets of kum buds, or sporul-amenta, are arranged along both sides of the diagonal fibrulum divergent from the intermedial frond stalk.

Acrostikum genus, Foliatio. The several leaves of each multi-pagænal frond of plants of Acrostikum genus are long, and rather broad, and much reticulated; the inferior surface of each frond leaf being covered by the spor-amenta.

Gemmatio. The several kum buds, or spor-amenta, are very numerous and contiguous, and disposed upon or between the reticulated fibrulets.

Trichomanes genus (imikum), Foliatio. The several leaves of each multi-pagænal frond of plants of Trichomanes genus are much divided, and similar to the leaves of plants of Heracleum genus.

Gemmatio. The kum buds and spor-amenta are produced from the tips, or extremities of the several frond leaves.

Adiantum genus (riminikum), Foliatio. The several leaves of each multi-pagænal frond of plants of Adiantum genus are similar to the leaves of the Birch tree.

Gemmatio. The kum buds, or spor-amenta, are produced from the reflected margins, or rims of the frond leaves.

Osmundia genus (panikulum), Foliatio. The several leaves of each multi-pagænal frond of Osmundia genus are long, entire, opposite, biparal, sessinal.

Gemmatio. The mode of fructification of plants of Osmundia genus is panikulate, or multi-spikulate, and comprises several series of sessinal and contiguous spor-amenta arranged along terminal stalklets divergent from the end of each frond stalk.

OF ARTICULATÆ; OR RADITURIAL AND STIRPE-THEKAL FRONDO-FERNÆ PLANTÆ, DESTITUTE OF A STEM, OR STEMS, COMPRISING PLANTS OF

Equisetum genus (di spikum), Foliatio. The frondose limbula, or several fallæal membrula of the Raditurial frondo-fernæ plantæ of Equisetum genus are articulate and divided into several tubulate portions by collaminate junctions, or annular junctura. Each raditurial frond is simplex, and constitutes a single frond limb, produced separately from the root. Otherwise, each raditurial frond is complex and surrounded by several series of gyro-cyclar stalklets, produced from each articulate and bractelate junctura.

Gemmatio. The spor-amenta are spikulate, and produced from the culmi-terminal portion of the frond stalk. Otherwise, the spikulum is the terminal portion of a separate and distinct frondose limbulum.

Isoetes genus (stirpe-thekum), Foliatio. Plants of Isoetes genus have raditurial and articulate frond leaves; each gramineal, or grasslike frond leaf being divided by collaminate and transverse junctions.

Gemmatio. The spor-amenta are produced from the stirpe-thekal, or placental portions of the frond leaves.

Pilularia genus (stirpe-axilikum), Foliatio. Plants of Pilularia genus are repto-articulate, and each raditurial series, or set of gramineal leaves is produced separately.

Gemmatio. The spor-amenta are stirpe-axiliar, and produced from the basis of the leaves.

Marsilea genus (stirpe-thekum et apo-terminikum), Foliatio. The frond leaves of plants of Marsilea genus are apo-terminal, opposite, and supported by a slender frond stalk.

Gemmatio. The spor-amenta of plants of Marsilea genus are stirpe-thekal and apo-terminal.

To these may be added plants of Chara genus, Hippuris genus, Salicornia genus.

OF STIPULATÆ ET STIRPENAL FRONDO-FERNÆ PLANTÆ.

Having a frondulum, or frond leaf, produced from the radix, or root, and clasping the whole stipulus, or frond stem, with its circumplectant bractelum. The frondinkulum, or petiolum of the frond leaf, being

divergent from the terminal portion of the stipulus. Otherwise, comprising raditurial frondo-fernæ plantæ, having several mono-pagænal frond leaves produced from the radix, or root ; each frond leaf being separate and divergent from the basis of the stipulus, or frond stem.

Ophioglossum genus (spikulum), Foliatio et Gemmatio. Plants of Ophioglossum genus are mono-fallæal and stipulate ; and their constitutional, or organical structure, is distinguished by having a slender stipulus, or frond stem terminated by a spikulum, or kyr sessinal series of contiguous spor-amenta. A single leaf, or fallæal membranulum, is divergent from the terminal portion of the stipulus ; the whole circumference of its shaft being surrounded by the bractelate circumplectant portion of the frond leaf.

Onoclea genus (panikulum), Foliatio et Gemmatio. Plants of Onoclea genus are mono-frondulate and stipulate ; and their constitutional, or veget-organical structure is distinguished by having a short stipulus, or frond stem, terminated by panikulate, or several sessinal and contiguous series of spor-amenta arranged around terminal axenta divergent from the terminum of the stipulus, or frond stem. A single frondulum is divergent from the terminal portion of the stipulus ; the whole circumference of its shaft being surrounded by the bractelate circumplectant portion of the frond stalk.

Arum genus (spaththeko spikulum), Foliatio et Gemmatio. The fructification of plants of Arum genus comprises a cymaral spikulum of sessinal and contiguous spor-amenta, arranged around the terminum of the stipulus, or long succulent frond stem. A raditurial series of mono-pagænal apo-terminal fronds being produced, and divergent from the basis of the stipulus. Plants of arum genus yield berries.

Pteris genus (aquilina), Foliatio. The multi-pagænal fronds of stipulate frondo-fernæ plantæ of Pteris genus are terminal, and produced from the apex of a short tough fibro-membranous stipulus, or frond stem.

Gemmatio. The spor-amenta are contiguous and marginal, and surround the margins of the several frond leaves in a continuous linear series.

6. *Graminiæ plantæ frugiferentes ;* comprising Arundo similar plants ; or cespitose and geniculate vegetative products having a tubo-filumnate, otherwise a crass-filumnate stem, or stems, arising from the seminal root of the harvest seed sown annually ; as many as 20 or 30 geniculate stems, or culmuli, being produced and vegetant from the expanded basis of the root of the cereal ovulum sown during the proper seed time. Otherwise, the stem of the gramineal plant arises from the placentum of an organical radix, or knobboal germinant root. The Spikula et Panikula (comprising the several contiguous and sessinal series of spika, also comprising the several choro-vinkulate series of panika) are produced and arranged in mathematical and similar series along the terminal and axental portion of the geniculate stem ; otherwise, disposed along the terminal portions of the umbyllinkulate stalklets divergent from the several terminal junctura of the geniculate stem. Each spikum et panikum containing a sicco-membranous ovulum of the

gramineal plant is destitute of a cymar, its Perifrux comprising and consisting of a twi-valvulate, or plura-valvulate glumal husk, or paleum.

7. *Radikaliæ herbæ;* described previously.

8. *Bulbo-stem herbæ;* described previously.

9. *Palmæ plantæ;* or Palma frond trees and fruit trees; described previously.

10. *Ramosæ arbores frugiferentes;* described previously.

11. *Ramosæ plantæ fructugerentes;* described previously.

12. *Vineæ plantæ;* or proserpinant and capriolar plants; comprising all kinds of Vines, or Vineal vegetative products. Vineal plants partake of the nature of both trees and herbs; and may be distinguished according to the diverse material substance and fabric of the Bineolus, or Vine stem; as well as according to the peculiar progressive motion of its shaft, and together constituting its organical and constitutional structure as a Vine plant, or Vineal vegetative product. The material substance and fabric of the Bineolus, or Vine stem, as well as the constitutional structure of each kind of Vineal vegetative product, is constantly the same; and its turional, or torquent, its repent and superficial, or its reptant and articulate vegetant motion and proserpinant growth, either spirally around other plants; otherwise, superficially along the surface of the soil, is not a habit acquired by cultivation or change of climate: but the Vineal plant, or Vine, continues a Vineal vegetative product during its veget-organical existence: its mode of propagating its offspring and species, as well as the constitutional circumstances and peculiar structure of its stem, or umbyllikal shaft, never varying. As the sheep changes not its nature, and never becomes a goat, although in tropical regions its wool may vary and become a sort of hair, so the frondulum and leaf, or fallæal membrula and membranula of the vine plant may vary; but its twi-germinant, or alterno-germinant, or cyclo-germinant, or thyrsiulate germ buds, as also its gemm buds, will ever continue to sprout and produce the same kinds of fruxamenta and fructamenta; as will likewise its frugiferent or fructugerent offspring plant.

The fish of Balæna genus belongs not to the class Quadrupes, or Bestia; neither is its organical and constitutional structure, nor its peculiar animal nature specified, nor defined, nor distinguished by the term Mammalia; because the carn-ossinal fabric, and the several limbula of its body are not constructed for locomotive and migrational movements upon the land. On the contrary, the viscera, fins, and entire continuity of its constitutional, or distinctive organical structure, as well as the oleaginous krebrum constituting the material substance of its huge body, are adapted for swimming. All the muscular powers and migrational habits of the whale being peculiar to animals of the Piscis, or Pinnata class. Whales constantly live, breathe, feed, migrate, propagate their offspring, and exist always in the ocean waters; and moreover, they are destitute of feet. Therefore, its mammæ, or organs of nutrition, also the circumstances of bringing forth viviparous offspring, and suckling them with milk, distinguishes the fish of Cetaceous, or whale kind, from every other kind of fish; in like manner, as the

circumstances of the conception and parturition of Ova distinguishes the Ab-ovo natal kind of animal of the Serpens class, or Reptilis class, from the Utero-placental kind of animal belonging to the Quadrupes, or Bestia class.

The Bineolus, or vine stem of vineal vegetative products, vines, or vine plants, comprises the Vitis, the Vitilis, the Vitex, the Viticulus (previously described). Vineæ plantæ are also distinguished as—1. Turio-vineæ ; 2. Caprio-vineæ.

Turio-vineæ plantæ comprise—*Primo.* Sinisturiæ vitiles plantæ, or vine plants torquent and winding spirally around other plants towards the sun, or leftways—Ex., Plants of Dioscorea genus, Hippocratea genus, Humulus genus, Lonicera genus, Menispermum genus, Tamus genus. *Secundo.* Dexturiæ vitiles plantæ, or vine plants torquent and winding around other plants contrary to the motion of the sun—Ex., Plants of Convolvulus genus, Basella genus, Cynanche genus, Euphorbia genus, Eupatorium genus, Ipomœa genus.

Caprio-vineæ plantæ ; comprise vineal plants, having Capriola, or curled limbula, produced from the axiliar and terminal portions of the branchlets, or frond stalks—Ex., Plants of Pisum genus, Vicia genus, clinging to other plants for support.

Vineæ plantæ are also distinguished as—

Primo. Viticulate et reptant subter-fossilum—Ex., Plants of Mentha genus.

Secundo. Viticulate et reptant supra-fossilum—Ex., Plants of Fragaria genus.

13. *Stirpetiolatæ plantæ et crass-stirpetiolatæ plantæ gemmiferentes ;* comprising frondose and raditurial vegetative products, or plants destitute of a stem, or stems ; but having several multi-limbulate and gemmiferent fronds produced from a radix, or germinant root ; as well as comprising erect plants destitute of a stem, but having one, or several thick frondose limbs and limbula distinguished by their irregular fabric and growth ; or otherwise distinguished by the regular fabric and mathematical outline of their superficies.

The several stirpetiolate, crass-stirpetiolate, crassulumnate, and glomerate, or enlarged succulent limbs, or limbula of plants of Cactus genus, are often destitute of leaves, and most frequently garnished with prickles, or spines.

The gemm buds, or fructification buds of Stirpetiolatæ plantæ are either conchordant and intermedial, *i.e.*, produced and arranged in sequental order along the frond stalk and intermedially betweeu the limbula, or fallæal membrula of the fronds. Otherwise, the gemmatio is equi-sparginal and peri-frond, and the gemm buds are arranged cyclarly around, or along the crass-stirpetiolate limbula. Otherwise, the gemmatio is supra-frond and superficial, and the gemm buds are produced from the angulate, or protuberant portions and knobs of the multi-lateral, glomerate, and other thick, crassulate, or enlarged petiola, limbula, and fallæal membrula of the plant.

14. *Ab-ovo natæ plantæ ;* or erect and fallæal vegetative products ; comprising those gemmiferent (non-vineal, non-gramineal, non arbore-

scent) kinds of plants, having a stem arising from the seminal root of the harvest seed, or cereal ovulum sown and disseminated annually.

If it be reasonable to class the fish of the deep sea with the quadruped of the land, it is also reasonable to class Ab-ovo natal vegetative products separately ; inasmuch as the Ab-ovo natal plant, or vegetative product, is destitute of a placentum and organical radix ; and therefore does not vegetative in the same manner as the tree and herb, because the constitutional circumstances of its structure are different, as well as its relative nature, and its mode of propagating its offspring and species. The botanist, as well as the gardener should know, and be able to distinguish such kinds of plants as exist during only one season, and be prepared to gather their cereal ovula, or harvest seeds.

The philosopher, as well as the skilful and practical botanist, should also know, and be able to deliver the doctrine and knowledge of the properties and distinctive fasma, or specific and physical diversities of each several kind of kremental and crebrescent radix, or germinant root. For there is no use in the science of botany, unless for the improvement of husbandry, and medicine, and the arts of life. Without this ultimate purpose Botany is a mere game of play.

Examples of Ab-ovo natæ plantæ are plants of Spinacia genus, Amaranthus genus, Impatiens genus, Amethystea genus, Celosia genus, Gomphræna genus, Beta genus, Cheiranthus genus.

15. *Aquarinæ plantæ.* Aquarinæ plantæ are those peculiar kinds of vegetative products, vegetating and abiding ; as well as producing their offspring and species in Palustrinal, Lacrinal, and Fluvirinal waters ; and comprise — 1. Sabrinæ ; 2. Naiadæ ; 3. Inundæ ; 4. Alutilæ.

Sabrinæ plantæ. The gemm buds and many petal'd flor-amental kalyces of Sabrinæ plantæ float and expand upon the level surface of the water—Ex., Plants of Nymphea genus, Nelumbium genus, Valisneria genus. To these may be added plants of Menyanthes genus, *i.e.*, the yellow petal'd fringed Buck bean, having axiliar and terminal chor-rythmal gemm buds and floramental kalyces.

Naiadæ plantæ. The gemm buds and kalyces of Naiadæ plantæ are axiliar and sessinal, or axiliar and spikulate and gyro-cylar—Ex., Myriofallæ, Potamogeton, Hippuris.

Inundæ plantæ. The gemm buds and kalyces of Inundæ plantæ are stirpe-thekal, and produced from the stirpal, articulate, and terminal portions of the leaves—Ex., Pontederia, Marsilea, Pilularia, Isoetes, Crinoetes, or Conferva fluvirina.

Alutilæ plantæ. The gemm buds and kalyces of Alutilæ plantæ are axiliar and terminal—Ex., Plants of Elatine genus, Callitriche genus, Cerato-fallæ genus ; comprising those viticulate kinds of plants covering the surface of ponds and ditches.

OF THE SEVENTY-SIX SEXDOMAL, OR TRINAL BOTANICAL CLASSES.

Distinguishing vegetative products, or plants, according to an Iulian system of arrangement and Julian method of classificatlon ; and comprehending several Syn-domal and Di-domal Ikonidulia, or Botanical classes denominated according to the various production, quantity, number, disposition, proportion, combination, and envelopement (either together, or singly and separately) of the Masculine and Feminine indices of regenerative vitality and duality contained and apparent in the Anth-amental, Cymar-amental, and Vest-amental kalyces et kunabula of the Grass, Herb, Tree, Fruit tree, Fruit plant, or Ab-ovo natal vegetative product.

The 10 Primary Addomal classes are named according to the number of Idola supported by the Collet of each Gemmos.

The numerical Ikona et Ika of each primary Addomal class, are circumcolletral, and comprise separal and stitial limbula, or sessinal membranula in number from 1 to 500, produced from the basement and surrounding the collet of the Gemmos.

Name of each Gemmos, or Hermaphral gemm bud, denominated according to the number of its Ikona and Idola.	Name of each Ad-domal et Separ-ikonidulium, or Botanical class. MONAD DOMA, Name of each Genus, or affinal kind of vegetative product, as denominated in the "Genera Plantarum" of Linneus; but defined with different terms according to the constitutional circumstances and distinctive fasma of its Kalyx, or organical receptaculum.
Un ad.	Ex., Anthamental et Aprifrux, Hippuris—Ex., Anth et Cobrafrux, Salicornia. Ex., Cymaral et Apertamental, Boerhaavia.
Do ad.	Ex., Cymaral et Apertamental, Boerhaavia. Ex., Cymaral Dialium.
Corollum of the Cymar impar di-partite et impar sect.	Ex., Floramental et Aprifrux, Amethystea, Cunila, Collinsonia, Lycopus, Monarda, Morina, Rosmarinus, Salvia, Ziziphora.
Corollum of the Cymar equi-partite.	Ex., Floramental et Opertamental, Ancistrum, Olea, Ligustrum, Phillyrea, Gratiola, Veronica, Pederota—Ex., Circæa—Ex., Globba—Ex., Nyctanthes.
Corollum of the Cymar impar di-partite et impar sect.	Ex., Floramental et Opertamental, Bivertex, Calceolaria, Fumaria, Justicia, Monnieria, Pinguicola, Utricularia.

Trine ad.	Ex., Anth et Aprifrux, Cyperus, Eriophorum, Fuirena, Nardus, Pommereulla, Kyllingia, Schœnus, Scirpus.
	Ex., Anth et Opert, Ortegia, Rotala.
3 petala.	Ex., Flor et Opert, Callisia, Cneorum, Rumphia, Zyris.
5 petala.	Ex., Polycnemum, Valeriana, Hippocratea, Loeflinglia.
6 petala.	Ex., Spath-thekal et Cymaral, Commelina, Crocus, Gladiolus, Iris, Ixia, Lygeum, Antholyza, Galaxia, Moræa, Wachendorfia—Ex., Cymaral, Dilatris.
Char ad.	Ex., Anth. 4 Vestula, Acæna, Rivina, 4 Sepallia, Camphorosma, Salvadora.
Corollum of Cymar, 4 sect.	Ex., Flor et Aprifrux, Knautia, Cephalanthus, Dipsacus, 4 Petala, Protea.
„ 5 sect.	Ex., Flor et Aprifrux, Allionia, Globularia, Scabiosa—Ex., Anth, Cometes, Dorstenia.
4 petala.	Ex., Flor et Opert, Cornus, Epimedium, Fagara, Ludwigia, Othera, Orixa, Ptelea, Skimmia, Trapa, Banksia, Harthogia—Ex., Cissus, Samara.
4 corollula.	Ex., Flor et Opert, Callicarpa, Centunculus, Diodia, Galium, Petesia, Plantago, Rubia, Rhacoma, Scoparia, Spermacocce, Sanguisorba—Ex., Peplis.
4 corollula.	Ex., Flor et Opert, Aquartia, Blæria, Ægiphila—Ex., 5 Petala, Siphonanthus.
Quine ad.	Ex., Anth et Aprifrux, Gonocarpus—Ex., Anth et Cobrafrux, Thesium.
	Ex., Anth et Opert, Achyranthes, Illecebrum.
5 corollula.	Ex., Flor et Aprifrux, Cerinthe, Echium, Mirabilis, Nolana, Onosma, Plumbago, Symphitum—Ex., Cobrafrux, Borago.
5 petala.	Ex., Flor et Opert, Aquilicia, Argofallæ, Butneria, Ceanothus, Celastrus, Cedrela, Corynocarpus, Claytonia, Cyrilla, Celosia, Diosma, Euonymus, Escallonia, Genifra, Glaux, Gronovia, Hirtella, Itea, Hovenia, Hedera, Roridula, Sauvagesia—Ex., Fruct Mangofera.
5 corollula.	Ex., Flor et Opert, Anagallis, Atropa, Azalea, Bellonia, Brossea, Capsicum, Chiococca, Cordia, Coris, Conocarpus, Cortusa, Datura, Erithalis, Echites, Ehretia, Ellisia, Genipa, Hyoscyamus, Jacquinia, Ignatia, Lonicera, Hydrofallæ, Lisianthus, Ipomoea, Mus-

	sænda, Macrocnemum, Menyanthes, Nicotiana, Porana, Phyteuma, Rondiletta, Patagonula, Portlandia, Psychorea, Scævola, Strychnos, Solanum, Physalis, Soldanella, Rauvalfia, Theophrasta, Spigelia, Samolus, Randia, Trachelium, Triostera, Sideroxylon, Schwenkia, Verbascum, Varrona, Vinca.
Cymar vasform, or entire	Ex., Flor. Convolvulus, Matthiola. Ex., Flor. Brunia, Kuhnia, Lagoecia. Ex., Spath-thekal et Cymaral, Heliconia—Ex., Cymaral, Rhamnus.
Sex ad.	Ex., Anth et Aprifrux, Ehrharta. Ex., Flor et Aprifrux, Richardia.
6 petala.	Ex., Flor. Tacca, Prinos, Peplis, Leontice, Loranthus, Nandina.
3 petala.	Ex., Flor. Tillandsia, Tradescantia, Bursera—Ex., 5 petala Frankenia.
6 petala.	Ex., Cymaral, Albuca, Alstromeria, Anthericum, Asparagus, Cyanella, Dracæna, Erythonium, Fritillaria, Gloriosa, Lindera, Lilium, Ornithogalium, Phormium, Pollia, Scilla, Uvularia.
6 corollula.	Ex., Cymaral, Agave, Aloe, Convallaria, Hyacinthus, Yucca, Polianthes.
6 petala.	Ex., Spath-thekal et Cymaral, Amaryllis, Bulbocodium, Galanthus, Leucojum.
6 corolluula.	Ex., Spath-thekal et Cymaral, Gethyllis, Hypoxis, Hemerocallis.
Sept ad.	Ex., Flor. Æsculus, Disikona, Limeum, Trientalis.
Oct ad.	Ex., Anth et Aprifrux, Lachnea. Ex., Anth et Opert, Dodonea. Ex., Flor et Aprifrux, Gnidia—Ex., Flor et Cobrafrux et Bractangulate, Combretum.
4 petala.	Ex., Flor et Opert, Allofallæ, Antichorus, Ophora, Erica, Epilobium, Gaura, Grislea, Disikona, Lawsonia, Melecocca, Memecylon, Osbeckia, Oenothera, Amyris, Rhexia, Zimenia, Vaccinium.
5 petala.	Ex., Flor. Blakea, Tropæolum, 8 petala Mimusops. Ex., Cymaral et Apert, Fuchsia.
Non ad.	Ex., Flor. Cassyta, Tinus.

Decem ad.	Ex., Anth (5 petala, Bucida, Samida).
5 petala.	Ex., Flor. Bergera, Chalcas, Clethra, Dionæa Dictamnus, Fagonia, Guaiacum, Hæmatoxylon, Limonia, Ledum, Melastoma Quassia, Murraya, Pyrola, Melastoma Heisteria, Jussieua, Ruta, Thryallis, Zygofallæ.
5 corollula.	Ex., Flor. Arbutus, Andromeda, Epigæa Kalmia, Gualtheria, Rhododendron.
5 petala.	Ex., Cymaral et Co-opertamental, Copaifera.
Trine cymaral.	Ex., Flor et Co-opert, Anagyris, Cercis Hymenæa, Sophora.
5 petala.	Ex., Flor et Co-opert, Bauhinia, Cassia Cæsalpinus, Cynometra, Prosopis, Adenikona, Guilandina, Myroxylon, Poincinia Parkinsonia.

Plura decem ad.	Ex., Anth. Asarum, Bocconia, Hudsonia, Sterculia. Trianthema.
4 petala.	Ex., Flor. Apactis, Garcinia, Halesia, Dodecas, Rhizophora.
5 petala.	Ex., Flor. Eurya, Peganum, Nitraria, Portulacca, Triumfetta.
6 petala.	Ex., Flor. Blakia, Ginora, Lythrum.
5 petala.	Ex., Flor. Plura 10 ika, Vatica, Canella.

Vigint ad.	Ex., Flor et Fruct, 5 petala, Cratægus, Elæocarpus.

Plura vigint ad.	Ex., Flor. Decumaria, Philadelphus.

Turb ad.	Ex., Anth. Delima, Laetia, Prockia, Seguiera, Trewia—Ex., Cymar. Rheedia.
4 petala.	Ex., Flor. Calofallæ, Caryofallæ, Grias, Mammæa, Sparmannia.
5 petala.	Ex., Flor. Cleyera, Cistus, Elæocarpus, Loosa, Mentzelia, Ochna, Sloanea, Sarracenia, Vallea, Vateria—Ex., Bract-annulate, Tilia.
5 petala.	Ex., Flor et Fruct, Prunus, Amygdalus, Chrysobolanus, Myrtus, Punica, Plinia, Psidium.
6 petala.	Ex., Flor Lagerstromea, Lecythis, Thea—Ex., Fruct, Sonneratia.

DUAD DOMA.

Un duad.	Ex., Anth Blitum, Mniarum—Ex., Glum, Cinna (gram).
	Ex., Cym. Corispermum, Callitriche.

Do duad.	Ex., Glum. Anthoxanthum (gram).
Trine duad.	Ex., Glum. (Graminiæ plantæ), Alopecurus, Agrostis, Aristida, Anthistiria, Arundo, Avena, Bobartia, Briza, Bromus, Cornucopeia, Dactylis, Elymus, Cynosurus, Festuca, Lagurus, Lolium, Hordeum, Melica, Melium, Panicum, Paspalum, Phalaris, Poa, Phleum, Rotbollia, Secale, Saccharum, Stipa, Triticum, Tripsacum, Uniola.
Char duad.	Ex., Anth et Aprifrux, Aphanes.
4 petala.	Ex., Flor et Aprifrux, Hammamelis, Crucita. Ex., Flor et Opert, Buffonia, Cuscuta—Ex., Cym. et Opert, Gomozia. Ex., Flor et Co-opert, Hypecoum.
Quine duad.	Ex., Anth. (5 Vestula, Beta, Chenopodium, Herniaria, Salsola)
5 petala.	Ex., Flor. Anabasis, Bumalda, Heuchera, Lincolnia, Nama, Russelia, Velezia.
5 corollula.	Ex., Flor. Cynanchum, Hydrolea, Steris.
5 petala.	Ex., Flor et Chorythmal, Apium, Ægopodium, Anethum, Angelica, Æthusa, Athanasia, Ammi, Artedia, Astranta, Bunium, Bubon, Bupleurum, Carum, Cussonia, Coriandrum, Cicuta, Chærofallæ, Cuminum, Cachrys, Crithmum, Conium, Caucalis, Daucus, Echinophora, Eryngium, Ferula, Heracleum, Hasselquistia, Hydrocotyle, Imperatoria, Ligusticum, Laserpitium, Pimpinella, Pastinaca, Phellandrum, Peucedania, Oenanthe, Seseli, Smyrnium, Scandix, Sison, Sium, Selinum, Sanicula, Tordylium, Thapsia—Ex., Phyllis—Ex., Coprosma.
Sex duad.	Ex., Glum et Gram, Gahnia, Oryza.
Oct duad.	Ex., Anth. Galenia. Ex., Flor. Codia, Moehringia, Schmidelia, Weinmannia.
Decem duad.	Ex., Anth. 5 sepallia (Chrysosplenium, Herniaria, Sceleranthus, Trianthema).
5 petala.	Ex., Flor. Cunonia, Dirythmæ, Gypsophila, Hydrangea, Royena, Saponaria, Saxifraga.
Plura decem duad.	Ex., Flor et Vest, Agrimonia. Ex., Flor et Opert, Heliocarpus.

Turba duad.	Ex., Anth. Fothergillia. Ex., Flor. Curatella, Bixa.

TRIAD DOMA.

Trine triad.	Ex., Anth et Cobrafrux, Triplaris.
5 vestula.	Ex., Anth et Opert, Minuartia, Mollugo, Queria.
5 corollula alternate.	Ex., Flor et Opert, Montia, Polycarpon.
Quine triad.	Ex., Anth. Vestium, (5 partite, Pharnaceum, Zylofallæ.)
5 petala.	Ex., Flor. Alsine, Dripys, Sarothra, Semecarpus, Turnera. Ex., Cym. Basella.
Sex triad.	Ex., Anth, Flagellaria.
6 petala.	Ex., Cym. Helonias, Melanthium—Ex., Spaththekal et Cym, Colchicum. Ex., Flor et Cobrafrux, Rumex. Ex., Flor et Opert, Trollium.
Oct triad.	Ex., Anth et Cobrafrux (5 sepallia, Polygonum, Coccoloba).
4 petala.	Ex., Flor et Opert, Cardiospermum, Paullinia, Sapindus.
Decem triad.	Ex., Anth (5 vestula, Cherleria, Garidella).
5 petala.	Ex., Flor. Arenaria, Banisteria, Cucubalis, Deutzia, Silene, Stelleria. Ex., Flor et Bractealate, Hiræa, Triopteris.
Plura decem triad.	Ex., Cym et Cobrafrux, Pallasia—Ex., Flor et Cobrafrux, Visnea. Ex., Flor et Opert, Euphorbia, Reseda.
Viginti et plura 20 triad.	Ex., Flor et Fruct, Mespilus, (K. G.)
Turba triad.	Ex., Anth. Sesuvium—Ex., Cym, Delphinium. Ex., Flor. Corchorus, Reseda.

QUAD DOMA.

Char quad.	Ex., Flor (4 petala, Myginda, Sagina, Tillæa).
Quine quad.	Ex., Flor. Evolvulus.
Oct quad.	Ex., Anth et Cobrafrux, Petivera.
4 petala.	Ex., Flor et Opert, Adoxa, Elatine, Haloragis, Paris.
Turba quad.	Ex., Anth. Tetracera. Ex., Flor. Caryocar.

QUINQUAD DOMA.

Quine quinquad.	Ex., Anth. Gisekia. Ex., Flor et Cobrafrux (5 petala, Sibbaldia, Statice).
5 petala.	Ex., Flor et Opert, Aralia, Abroma, Aldrovanda, Commersonia, Crassula, Drosera, Linum, Mahernia.
Decem quinquad.	Ex., Flor et Aprifrux (5 petala, Suriana, 10 petala, and 5 sepallia, Forskohlea).
5 petala et 5 sepallia.	Ex., Flor et Opert, Agrostemma, Bergia, Cerastium, Lychnis, Oxalis, Penthorum, Sedum, Spergula, Spondias, Dianthus—Ex., 5 corollula, Cotyledon.
5 petala et 5 vestula.	Ex., Flor et Fruct, Averrhoa, Hugonia.
Plura 10 *quinquad.*	Ex., Anth. Glinus. Ex., Flor. Euphorbia.
Viginti quinquad.	Ex., Anth. Tetragonia.
5 petala.	Ex., Flor et Fruct, Cratægus, Mespilus, Pyrus, Sorbus.
Turba quinquad.	Ex., Anth. Aizoon.
5 petala.	Ex., Cym. Aquilegia, Nigella.
5 petala.	Ex., Flor. Brathrys, Spiræa.

SEXTAD DOMA.

Sex sextad.	Ex., Flor. Alisma, Sempervivum.
No sextad.	Ex., Spath-thekal et Cym, Butomus.
Turba sextad.	Ex., Cymaral, Helleborus.

SEPTAD DOMA.

Sept septad.	Ex., Flor. Septas.
Viginti septad.	Ex., Flor. Cimicifuga.

OCTAD DOMA.

Octo octad.	Ex., Cym. Phytolacca.
Plura decem octad.	Ex., Flor et Aprifrux, 4 petala, 8 sepallia altern, Tormentilla.

DECIAD DOMA.

Decem deciad.	Ex., Flor. Neurada. Ex., Cym. Phytolacca.

Viginti deciad.	Ex., Cym. Phytolacca.
Turba deciad.	Ex., Cym. Nigella, 5 petala—Ex., Flor. Mesembryanthemum, many petala.

BEVAD DOMA.

Plura decem bevad.	Ex., Flor et Opert, Sempervivum.
Viginti bevad.	Ex., Flor et Aprifrux, or Suprafereum, 5 petala et 10 sepallia, Comarum, Geum, Fragaria, Potentilla.
Turba bevad.	Ex., Anth et Cobrafrux, Kalykanthus. Ex., Flor et Aprifrux, Ranunculus, Atragene, Dryas. Ex., Cym et Aprifrux, Anemone, Clematis. Ex., Cym et Opert, Hydrastis, Isopyrum. Ex., Flor et Pomamental, Rosa.

The Gemmos contains 4 Di-stitial et Impar-stypiate Ikona; two longer, two shorter. The Impar-domal Collet of the Gemmos supporting one Idolum.

Name of each Impar-stypiate et Impar-domal Ikonidulium, or Botanical Class.

DISPAR TWIN IKONA ET QUADRINAD DOMA.

Open vasculate vestimental Perifrux.	
Cymar di-partite et 1 3 di sect.	Ex., Flor. Ballota, Betonica, Dracocephalum, Galeopsis, Hyssopus, Leonurus, Melittis, Molucella, Phryma, Origanum, Phlomis, Prasium, Prunella, Satureja, Stachys, Trichostemma, Thymbra, Thymus, Lamium.
Cymar di-partite et 2 3 di sect.	Ex., Flor. Ajuga, Cleonia, Clinopodium, Hormium, Lavendula, Marrubium, Melissa, Selago, Sideritis, Teucrium.
Corollum 4 or 5 impar partite.	Ex., Flor. Glechoma, Mentha, Nepeta, Ocymum, Perilla, Scutellaria.

DISPAR TWIN IKONA ET INTEGER DOMA.

Covered fabbralate Fruxamentum.	
Cymar di-partite et 1 3 di-sect.	Ex., Flor. Bartsia, Castilleja, Euphrasia, Chelone, Gerardia, Columnea, Acanthus, Bontia, Dodartia, Hyobanche, Lindernia, Lathræa, Melampyrum, Orobanche, Pedicularis, Stemodia, Torenia, Schwalbea, Vandelia, Rhinanthus, Avicenna.
Cymar di-partite et 2 3 di-sect.	Ex., Flor. Antirrhinum, Begonia, Buchnera, Cymbara, Citharoxylon, Celsia, Selago, Gesneria, Mimulus, Tozzia—Ex., Spathekal, Craniolaria.

Corollum 6 partite.	Ex., Flor. Vitex—Ex., Flor. 3 partite, Ovieda.
Corollum 4 impar partite.	Ex., Flor. Cornutia, Digitalis, Gmelina.
Corollum 4 impar partite.	Ex., Flor. Halleria, Hebenstretia, Lantana, Lippia, Linnea, Manulea, Melianthus, Millingtonia, Obolaria, Petrea, Premna.
Corollum 5 impar partite.	Ex., Flor. Barleria, Bignonia, Besleria, Brownwallia, Capraria, Celsia, Clerodendron, Durante, Hemmeris, Ruellia, Sesamum, Scrophularia, Thunbergia, Volkameria, Crescentia.
5 corollula.	Ex., Flor. Alectra, Erinus, Dombeya, Limosella, Loeselia, Martynia, Pedalium, Sibthorpia, Amasonia.

The Gemmos contains 6 Di-stitial et Impar-stypiate Ikona; four longer, two shorter. The Impar-axental Collet of the Gemmos supporting either one Idolum, otherwise one Idum.

Name of each Impar-stypiate et Impar-axental Ikonidulium, or Botanical Class.

QUADRA ET TWIN IKONA DI-STITIAL ET IDOLUM.

Sil-oblum Podium.	Ex., Flor et Quadra petala. Alyssum, Clypeola, Biscutella, Anastatia, Cochlearia, Iberis, Lepidium, Lunaria, Myagrum, Peltaria, Subularia, Thlaspi, Vella, Draba.

QUADRA ET TWIN IKONA DI-STITIAL ET IDUM.

Sil-lumbulum Podium.	Ex., Flor et Quadra petala, Arabis, Brassica, Cardamine, Cleone, Cheiranthus, Dentaria, Isatis, Sinapis, Sisymbrium.
	Ex., Flor et Quadra petala, Bunias. Crambe, Chamira, Erysimum, Elionidum, Hesperis, Raphanes, Ricotia, Turritis.

The Gemmos is Monad doma, otherwise Bevad doma, and contains several Constitial and Peri-colletral ikona; or several Consessinal and Peri-colletral ika, produced upon and around the superficies of its fibro-columnar, or enlarged collet.

Name of each Peri-colletral et Turbatural Ikonidulium, or Botanical Class.

5 petala.

PERI-COLLETRAL ET TURBATURAL. MONAD DOMA.

Turba tural.	Ex., Flor. Alcea, Althea, Bombax, Camellia, Carolina, Gordonia, Gossypium, Lavatera, Hibiscus, Malope, Malachra, Malva, Urena, Stewartia, Grewia, 4 petala, Barringtonia, 6 petala, Zylopia.

6 petala.	PERI-COLLETRAL ET TURBATURAL BEVAD DOMA.
Turba tural.	Ex., Flor. Unona, Uvaria.

The numerical Ikona of the Gemmos are circum-colletral and cyclo-stitial, and comprise several Cyclo-rimnal indices produced from the margin of the Gemmareum, and arranged in a cyclar series. Otherwise, the numerical Ikona are Cyclo-contiguous indices produced from the basement of the Collet of the Gemmos, in a contingent series, or adherent.

The Gemmos is Monad doma, or Plurad doma.

Name of each Circum-colletral et Cyclo-stitial Ikonidulium, or Botanical Class.

5 petala.	CYCLO-STITIAL ET RIMNAL. MONAD DOMA.
Decem rimnal.	Ex., Flor. Quisqualis.
Viginti rimnal.	Ex., Flor. Prunus, Myrtus, Laurus.
Plura 20 *rimnal.*	Ex., Flor. Punica.
5 petala.	CYCLO-STITIAL ET RIMNAL. PLURA DOMA.
Viginti rimnal.	Ex., Flor. Mespilus, Sorbus, Cratægus.
Viginti rimnal.	Ex., Flor. Pyrus.
Turba rimnal.	Ex., Flor. Rosa—Ex., Anth, Kalykanthus.
5 petala.	CYCLO-STITIAL ET ADHERENT. MONAD DOMA.
Quine contingent.	Ex.,Flor.Viola, Impatiens, Jasione, Strumpfia.

The numerical Ikona of the Gemmos are circum-colletral and combinate, or collected and combined together; and comprise several Fasciate et Centro-vergent, or Fastigiate et Apo-vergent, or Scaphiulate et Cyclo-combinate sets of indices produced from the basement and surrounding the collet of the Gemmos. The vertical portions of the Ikona being connected together; otherwise the stypial portions of the Ikona being combined together by means of Scaphiulate bractela, or fibro-laminal membranes. The genus, or kind of plant, is distinguished by the velaminal and trine-cymaral webs of its Floral gemm; otherwise by the 5 equal petala of its Floral gemm.

Name of each Circum-colletral et Combinate Ikonidulium, or Botanical Class.

The Circum-colletral et Fasciate et Centro-vergent Ikonidulium.

5 petala.	MONO-FASCIATE ET EQUI-VERGENT. TRIAD DOMA.
Quine equi-vergent.	Ex., Flor. Passiflora.

5 petala.	DI-FASCIATE ET DI-VERGENT. PLURAD DOMA.
Tri et quinque rythmal.	Ex., Flor. Hypericum.

The Circum-colletral et Fastigiate et Apo-vergent Ikonidulium.

Trine cymaral et co-opertamental.	BRACTELATE ET OMNI-FASTIGIATE. MONAD DOMA.
Octo fastigiate.	Ex., Flor. Dalbergia, Polygola, Securidaca.
No fastigiate.	Ex., Flor. Abrus, Borbonia.
Decem fastigiate.	Ex., Flor. Amorpha, Anthyllis, Arachis, Aspalathus, Crotolaria, Ebenus, Erythrina, Genista, Lupinus, Nissola, Anonis, Piscidia, Ulex., Pterocarpus, Spartium.
Trine cymaral et co-opertamental.	BRACTELATE ET DI-FASTIGIATE. MONAD DOMA.
Decem di-fastigiate.	Ex., Flor. Æschonomene, Astralagus, Biserrula, Cicer, Colutea, Coronilla, Cytisus, Dolichos, Ervum, Galega, Geoffreya, Glycine, Glycyrrhiza, Hedysarum, Hippocrepis, Indigofera, Lethyrus, Lotus, Medicago, Ornithopus, Orobus, Phaca, Phaseolus, Pisum, Psoralea, Robinia, Scorpiurus, Trifolium, Trigonella, Vicia, Faba.
5 petala.	BRACTELATE ET OMNI-FASTIGIATE. MONAD DOMA.
Quine fastigiate.	Ex., Flor. Lysimachia.
Octo fastigiate.	Ex , Flor. 4 petala, Aytonia.
No fastigiate.	Ex., Flor. Dryandra.
Decem fastigiate.	Ex., Flor. Geranium, Connarus.
Turba fastigiate.	Ex., Flor. Adansonia, Lida, 4 petala, Mesua, 6, or 8 petala, Gustavia.
5 petala.	BRACTELATE ET OMNI-FASTIGIATE. QUINQUAD DOMA.
Quine fastigiate.	Ex., Flor. Hermannia.
5 petala.	DI-BRACTELATE ET DI-FASTIGIATE. MONAD DOMA.
Viginti di-bractelate.	Ex., Flor. Citrus.
5 petala.	DI-BRACTELATE ET DI-FASCICULATE. MONAD DOMA.
Quine sex rythmal.	Ex., Flor. Glabaria.

Quine sept rythmal.	Ex., Flor. Durio, Melaleuca.
Quine decem rythmal.	Ex., Flor., Hopea.
Sex quine rythmal.	Ex., Flor., Munchausia, Theobroma.

The Circum-colletral et Scaphiulate et Cyclo-combinate Ikonidulium.

5 petala.	CYCLO-STYPIATE ET CONVERTINATE.
Quine convertinate.	Ex., Flor. Lobelia, Seriphium, Jasione.

5 petala.	SCAPHIULATE ET CYCLO-VERTINATE.
Quine cyclo-vertinate.	Ex., Flor. Pentapetes. Cyclovertex.

The numerical Ida, are sessinal upon the Kupoum, or rotund, oblate, oviform collet of each Gemmos, without an intermedial stylum. The numerical Ikona et Ika being circum-colletral and separal.

Name of each Kupo domal et Circum-colletral Ikonidulium, or Botanical class.

	KUPO IDUM.
Trine kupo idum.	Ex., Flor. Camocladia.
Quine kupo idum.	Ex., Flor et Uvamental, Uva vitis.
Sex kupo idum.	Ex., Flor et Uvamental, Berberis.
Decem kupo idum.	Ex., Flor. Tribulus.
Turba kupo idum.	Ex., Flor. Podofallæ, Nymphæa, Papaver.
4 petala.	Ex., Flor. Actæa, Capparis, Cratæva, Grias.
	KUPO DU IDA.
Quine kupo du ida.	Ex., Anth. Bosea. Ex., Flor. 5 Corollula, 5 Sepallia, Cynanchum, Stapelia, Swertia.
Quine ika kupo du ida.	Ex., Flor. 5 Corollula, 5 Sepallia, Asclepias, Apocynum, Ceropegia, Pergularia.
Sex kupo du ida.	Ex., Flor et Cobrafrux, Atraphaxis.
	Ex., Spath-thekal et Cym, Orontium.
Turba kupo du ida.	Ex., Flor. Chelidonium, Morisonia, Pœonia.
	KUPO TER IDA.
Do ika kupo ter ida.	Ex., Spath-thekal et Anth, Piper.
Trine kupo ter ida.	Ex., Anth (Koenigia, Proserpinaca. Ex., Flor. 3 petala, Lechea.)

Quine kupo ter ida.	Ex., Flor et Cobrafrux, Corigiola. Ex., Opert. 5 Petala, Rhus, Spathelia, Telephium, Tamarix. Ex., 3 petala, Lechea.
5 corrollula	Ex., Flor et Apert, Cassine, Sambucus, Viburnum.
Sex kupo ter ida.	Ex., Anth. Scheuchzeria. Ex., Flor. Triglochlin.
No kupo ter ida.	Ex., Flor et Aprifrux, Rheum.
	KUPO QUAD IDA.
Char kupo quad ida.	Ex., Flor et Aprifrux, Potamogeton.
Char ika kupo quad ida.	Ex., Flor et Opert, Ilex.
Char ika kupo quad ida.	Ex., Spath-thekal et Anth. Ruppia.
	KUPO QUINE IDA.
Turba kupo quine ida.	Ex., Flor. 6 petala, 3 vestula, Argemone.
	KUPO BEV IDA.
Turba kupo bev ida.	Ex., Flor. Dillenia Illicium Michelia, Liriodendron, Magnolia.
Turb ika kupo bev ida.	Ex., Flor. 6 petala, alternate, Annona.

The numerical Ida, are sessinal upon the Kuspoum, or enlarged fibro-columnar collet of each Gemmos, without an intermedial stylum. The numerical Ikona et Ika being Circum-colletral and separal.

Name of each Kuspo domal et Circum-colletral Ikonidulium, or Botanical Class.

	KUSPO IDUM.
Sex kuspo idum.	Ex., Flor et Uvamental, Berberis.
Decem kuspo idum.	Ex., Flor. Toluifera
Plura 10 *kuspo idum.*	Ex., Flor. Befaria.
Turba kuspo idum.	Ex., Flor. Marcgravia, Muntingia, Ascyrum, Sanguinaria.
	KUSPO DU IDA.
Quine kuspo du ida.	Ex., Flor. Gentiana.
	KUSPO TER IDA.
Sex kuspo ter ida.	Ex., Cymaral. Tulipa.
	KUSPO OCT IDA.
Turba kuspo oct ida.	Ex., Flor. Wintera.

KUSPO DECEM IDA.

Turba kuspo decem ida.	Ex., Cymaral, Caltha.

KUSPO BEV IDA.

Turba kuspo bev ida.	Ex., Flor et Aprifrux, Adonis, Ranunculus. Ex., Cym et Aprifrux, Hydrastis, Thalictrum, Trollius. Ex., Flor et Opert, Nymphæa, Papaver, Podofallæ.

The numerical Ikona et Ika of each Gemmos, are Apo-colletral, and Conterminal, together with the Idola et Ida from the Apex, or Apo-terminal portion of the Collet.

Name of each Apo-colletral et Ambo Conterminal Ikonidulium, or Botanical Class.

5 petala. APO-CONTERMINAD ET INVOLUCRAL. MONAD DOMA.

Do conterminad.	Ex., Cymaral, Arethusa, Cypripedium, Disa, Epidendrum, Limodorum, Ophrys, Orchis, Satyrium, Serapias.
Trine conterminad.	Ex., Cym. Sisyrinchium.
Char conterminad.	Ex., Cym. Pothos.
Sex conterminad.	Ex., Cym. Pistia.

APO-CONTERMINAD ET NON-INVOLUCRAL. MONAD DOMA.

Do conterminad.	Ex., Anth et Apricate et Kunab. Gunnera. Ex., Flor et Opert, Forstera.
Trine conterminad.	Ex., Anth. Stilago. Ex., Flor. Salacia.
Quine conterminad.	Ex., Flor. Ayenia, Gluta.
Ambo sex conterminad.	Ex., Cym. Aristolochia.
Oct conterminad.	Ex., Invest. Scopolia.
Decem conterminad.	Ex., Flor. Helicteres, Kleinhovia.
Plura 10 *conterminad.*	Ex., Anth. Cytinus.

The numerical Ikona et Ika of each Gemmos, are Peri-colletral and Contural, together with the Idola et Ida, upon the superficies of the enlarged fibro-columnar Collet. The Indices of both genders being either Kyro-contural, and promiscuously arranged. Otherwise Di-contural and separately arranged.

Name of each Peri-colletral et Ambo contural Ikonidulium, or Botanical Class.

PERI-COLLETRAL ET KYRO-CONTURAL, INVOLUCRAL.

Turb ika bev ida contural. Ex., Anth. Calla palustris. Ex., Flor. Dracontium.

PERI-COLLETRAL ET KYRO-CONTURAL. NON-INVOLUCRAL.

Turb ika bev ida contural. Ex., Anth. Houtuynia.

Name of each Peri-colletral et Di-contural Ikonidulium, or Botanical Class.

PERI-COLLETRAL ET DI-CONTURAL. INVOLUCRAL.

Turb ika bev ida di-contural. Ex., Anth. Arum, Calla Æthiopicus. Ex., Flor. Pothos.

PERI-COLLETRAL ET DI-SEQUENTAL, OR STIRPE-THEKAL.

Turb ika bev ida di-contural. Ex., Anth. Zostera.

The numerical Ikona et Ika of each Gemmos, are produced within the tuboum of the Vestium, or within the tuboum of the Cymar; and arranged in one, or more circular series upon the inner surface of either tuboum. Otherwise the Ikona et Ika are produced and arranged cyclarly upon the annular rim of the Vestium, or Peri-cymar.

Name of each Addomal et Circum-fereal Ikonidulium, or Botanical Class.

TUBIKONA ET TUBIKA, OR TURRIKONA ET TURRIKA. MONAD DOMA.

Un tubin ad. Ex., Flor. Canna, Amomum, Alpinia, Costus, Myrosma, Maranta, Renealma, Kempferia.

Do tubin ad. Ex., Flor. Chionanthus, Jasmimum, Syringa, Fumaria.

Do turrin ad. Ex., Flor. Eranthemum.

Trine tubin ad. Ex., Flor. Melothria, Hydnora, Willichia.

Trine turrin ad. Ex., Flor. Olax, Montia. Ex., Spath-thekal, Crocus, petala alternate, Gladiolus.

Char tubin ad. Ex., Anth. 4 Sepallia, Elæagnus, Isnardia. Ex., 8 sepallia, Alchemilla, Amannia. Ex., Flor et Aprifrux, Scabrita.

5 corollula. Ex., Flor et Opert, Catesbæa, Gonocarpus, Mitchella, Penea, Oldenlandia, Santalum. Ex., Cym et Opert, Krameria, Struthiola.

Char turrin ad.	Ex., Anth et Opert, Sirium. Ex., Char turrin ida et Cym, Embothrium.
4 corollula.	Ex., Flor et Opert, Asperula, Buddleja, Crucianella, Hedyotis, Ixora, Houstonia, Manetta, Fallorindæ, Pavetta, Polyspremum.
	Ex., Flor et Cobrafrux, 4 corollula, Sherardia, Cephalanthus. Ex., 4 petala, Protea, Cissus.
Quine tubin ad.	Ex., Flor. 5 Corollula, Aretia, Brunfelsia,
5 corollula.	Cerbera, Chironia, Cyclamen, Cameraria, Hammelia, Lycium, Menais, Mussænda, Morinda, Myrsine, Nerium, Pœderia, Plumeria, Primula, Plectronia, Rhamnus, Tabernæ-montana, Androsace, Arduinia, Cestrum, Laugeria, Mirabilis, Sheffieldia, Phlox, Tektona, Ulmus, Weigela. Ex., Uvamental Ribes.
Quine turrin ad.	Ex., Flor et Vest, et Aprifrux. 5 Corollula. Anchusa, Asperugo, Cynoglossum, Heliotropum, Lithospermum, Lycopsis, Myosotis, Pulmonaria, Plumbago, Symphytum. Ex., Cym et Aprifrux, Nauclea.
5 corrolula.	Ex., Flor et Opert, Allamanda, Bladhia, Carissa, Chrysofallæ, Gardenia, Diapensia, Dodecatheon, Dorena, Cinchona, Coffea, Epacris, Hottonia, Retzia, Polemonium, Ophiorhyza, Tournefortia, Roellia.
Sex tubin ad.	Ex., Flor. Duroia.
6 corollula.	Ex., Cym. Aletris, Capura, Convallaria.
6 petala.	Ex, Spaththekal et Cym. Hæmanthus, Narcissus, Pancratium.
Sex turrin ad.	Ex., Flor. 6 Corollula, Achras, Hillia, Canarina. 3 petala. Burmannia.
	Ex., Cym. 6 corollula, Asphodelus, Polianthes, 4 corollula, Saraca.
	Ex., Spaththekal et Cym. 6 corollula, Afallanthus, Gethyllis, Crinum, 6 petala, Massonia.
	Ex., Spaththekal et 6 petala altern, Pontedera Tulbagia.
Oct tubin ad.	Ex., Cym. Daphne, Stelleria.
Oct turrin ad.	Ex., Flor. Chlora, Passerina.
Decem tubin ad.	Ex., Flor. Styrax. Ex., Decem tubin idum, Inocarpus.
Decem turrin ad.	Ex., Flor. 5 petala. Trichilia, Turræa, Swietenia, Melia, Dais.

Plura 10 *tubin ad.*	Ex., Flor. Symplocos, Ternstroemia.
Plura 10 *turrin ad.*	Ex., Flor. Canella. Ex., Plura 10, twi-cyclar, Bassia.
Viginti turrin ad.	Ex., Flor. Laurus.
Turba turrin ad.	Ex., Flor. Amygdalus.
	TUBIKONA ET TUBIKA, OR TURRIKONA ET TURRIKA. DUAD DOMA.
Quine tubin duad.	Ex., Flor. 5 corollula, Melodinus, Asclepias, Cynanchum.
Quine turrin duad.	Ex., Flor. 5 corollula, Cressa, Gompfrena. Schrebera, Lerchea.
Sex tubin duad.	Ex., Flor et Aprif, Falkia.
Oct turrin duad.	Ex., Cym. Galenia.
Decem tubin duad.	Ex., Flor. Royena.
	TUBIKONA ET TUBIKA, OR TURRIKONA ET TURRIKA. TRIAD DOMA.
No tubin triad.	Ex., Cym et Aprif, Rheum.
	TUBIKONA ET TUBIKA, OR TURRIKONA ET TURRIKA. QUAD DOMA.
Char tubin quad.	Ex., Flor. Coldenia.
Char turrin quad.	Ex., Flor. Ilex.

The Gemmlets, or Congemnate hermaphral gemm buds of each Gemmoum are arranged in Verticiliate, or circular and concentrical series upon the Cetral basilium of an enlarged Kalyx. The 5 numerical indices of the Masculine gender (surrounding the central Idolum of each Gemmos of the Gemmoum,) are Cyclo-combinate and Cylindro-vertinate, i.e., each set of 5 Cyclo-stitial stypia is combined and terminated by a bractelate annular vertex.

Name of each Verticilliate et Concentrical Ikonidulium, or Botanical Class.

	THE GEMMORA (OR HERMAPHRÆ) OMNINO-CETRAL ET CONCENTRICAL.
Gemmoum.	Ex., Flor et Aprif et Investiturial, Andryola, Ageratum, Arctium, Athanasia, Atractylis, Barnadesia, Cacalia, Carlina, Carduus, Calea, Cnicus, Cichoreum, Chondrilla, Catananche, Carthamus, Crepis, Chrysocoma, Gynara, Geropogon, Bidens, Hieracium, Ethulia, Hypochæris, Hyoseris, Eupatorium, Lactuca, Lapsana, Leontodon, Picris, Pteronica, Onopordon, Prenanthes,

Santolina, Seriola, Scolymus, Serratula, Scorzonera, Stæhelina, Spilanthus, Tragopogon, Tarconanthes, Sonchus.

THE CYMARULA CIRCUM GEMMORA.

Gemmoum. Ex., Flor et Aprif et Investiturial, Achillea, Anacyclus, Amellus, Anthemis, Arnica, Artemisia, Aster, Baccharis, Celtis, Bellium, Buphthalmum, Bellis, Carpesium, Cineraria, Conyza, Colula, Eclipta, Doronicum, Erigeron, Gnaphalium, Helenium, Inula. Leysera, Mutisia, Matricaria, Perdicium, Pectis, Senecio, Solidago, Tridax, Tussilago, Segesbeckia, Taygetes, Tanacetum, Verbesma, Zeranthemum, Linnia, Unxia, Chrysanthemum.

The Gemmoum contains Gemmæ as well as Hermaphræ upon the Cetral Basilium.

THE GEMMÆ CIRCUM GEMMORA.

Gemmoum. Ex., Flor et Aprif et Investiturial Centaurea, Coreopsis, Didelta, Gorteria, Helianthus, Osmites, Rudbeckia, Scelerocarpus, Zoegæa, Clibadium, Parthenium.

The Gemmoum contains Gemmia and Gemmæ, or monosexual gemmlets of both genders.

THE GEMMÆ CIRCUM GEMMIA.

Gemmoum. Ex., Flor et Aprif et Investiturial Arctotis, Baltimoria, Calendula, Chrysogonum, Filago, Hippia, Eriocephalus, Milleria, Melampodium, Othonna, Osteospermum, Micropus, Polymnia, Silphium.

The Gemmlets, or Congemnate gemm buds of each Diademoum, are arranged in Cycloturial et Pyro-concyclar series upon the enlarged basilium of the Kalyx. Each Gemmlet enclosed by a Vestium, or Peri-cymar. The 5 numerical indices of the Masculine gender, surrounding the central idolum of each gemmos of the Diademoum, are Cyclo-combinate, and Cylindro-vertinate, i.e., each set of 5 Cyclo-stitial stypia, is terminated and combined by a bractelate annular vertex.

Name of each Diamedial et Concentrical Ikonidulium, or Botanical Class.

Thyrsos, or omnino hermaphræ. Ex., Flor et Aprif, Echinops, Gundelia, Jungia, Stœbe, Elephantopus, Barreria, Cynara, Petasites, Tussilago. (10 Ikona di fastigiate. Ex. Trifolium.)

Strobilum, or Gemmæ circum hermaphræ.	Ex., Flor et Aprif, Sphæranthus.

The Ikona of each gemmlet, or Hermaphral gemm bud of the Diademoum, are four in number, Circum-colletral, and Separal. The Idolum one, or Monad-domal.

Thyrsos, or omnino hermaphræ.	Ex., Flor et Aprif, Dipsacus, Scabiosa, Knautia, Cephalanthus, Globularia, Protea, Dorstenia (5 circum colletral ikona, Statice, Kuhnia, Brunia.)

The Monosexual gemmlets of each Uter gemm Diademoum, are produced from different Stems. The Ikona five in number, the Idola two.

Thyrsium et thyrsa di Stemma.	Ex., Anth et Aprif, Humulus.

The numerical Ikona et Ika are produced from the centre of the Gemmium, or monosexual Gemm bud, singly and separately from the Feminine indices. The Gemmium, and Gemma, or monosexual Gemm buds being either Digemnate, and produced from the same Stem, or otherwise Digemnate, and produced from separate Stems.

Name of each Di-gemnate and Separate Ikonidulium or Botanical Class.

	THE DI-GEMNATE ET SYN STEMMA IKONIDULIUM OF THE GEMMIUM AND GEMMA. IDOLUM ET IDUM.
Un et idolum.	Ex. Cym. Ambo et Fæm Peponamental, Elaterium, Cynomorium.
Ikum et idum.	Ex., Anth ambo, Chara.
Do et idolum.	Ex., Anth ambo, Lemna. Ex., Flor ambo, Anguria.
Trine et idolum.	Ex., Anth ambo et Glum, Coix, Olyra, Sparganum, Typha, Zea (graminiæ). Ex., Anth ambo et Opert, Tragia.
Char et idolum.	Ex., Flor ambo, Serpicula. Ex., Flos mas et Cymar fæm, Littorella.
Char et idum.	Ex., Anth ambo et Cobrafrux, Urtica.
3 *or* 4 *ika et idum.*	Ex., Anth ambo et Opert, Agyneja.
Quine et idolum.	Ex., Flor ambo, Leea, Ambrosia.
Sex et idolum.	Ex., Anth ambo, Pharus.
Sex turrin et idolum.	Ex., Flor ambo, Guettarda.
Oct fastigiate et idolum.	Ex., Anth ambo, Plukenetia.

Plura 10 *et idolum.*	Ex., Anth ambo, Theligonium.
Viginti et idum.	Ex., Anth ambo, Ceratofallæ.
Turba tural et idolum.	Ex., Anth ambo, Dalechampia.

DU IDOLA ET DU IDA. SYN STEMMA.

Un et du idola.	Ex., Anth ambo, Ceratocarpus.
Trine et du idola.	Ex., Anth ambo et Glum, Tripsacum. Ex., Anth ambo, Axyris.
Quine et du idola.	Ex., Anth ambo, Nephelium.
Turba et du idola.	Ex., Flor ambo, Poterium.

TER IDOLA ET TER IDA. SYN STEMMA.

Trine et ter idola.	Ex., Anth ambo, Fallanthus. Ex., Flor ambo, Eriocaulon.
Trine et ter ida.	Ex., Anth ambo, Carex.
Trine ika et trine ida.	Ex., Flor ambo, Bryonia, Cucumis, Momordica, Cucurbita, Tricosanthes.
Trine ika et trine ida.	Ex., Flor ambo, Sicyos.
Quine et ter idola.	Ex., Anth ambo, Amaranthus, Zygofallæ.

QUAD IDOLA ET QUAD IDA. SYN STEMMA.

Un et quad idola.	Ex., Anth ambo, Zanichella.
Char et quad idola.	Ex., Anth ambo, Cicca.
Quine et quad idola.	Ex., Flos mas Anthos fæm, Zanthium.
Oct et quad idola.	Ex., Anth ambo et Aprifrux, Myriofallæ.

BEV IDOLA ET BEV IDA. SYN STEMMA.

Turba et bev ida.	Ex., Flor ambo et Kalyk-orbulum, Sagittaria.

Ligneous timber trees, or branched and Kortextal vegetative products, are arranged consecutively.

IDOLUM ET IDUM. AMBO GEMM SYN STEMMA.

Un et idolum.	Ex., Anth ambo et Kunabulate, Casuarina, Radermachia. Ex., Anth ambo et Spadithekal, Artocarpos.
Do et idolum.	Ex., Flor ambo, Stillingia.
Trine et idolum.	Ex., Flor ambo, Hernandia.

Char et idolum.	Ex., Flor ambo, Buxus.
Char ika et idolum.	Ex., Flor ambo, Thuja. Ex., Char ika et idum, Anth ambo, Ajyneja.
Decem et idolum.	Ex., Anth ambo, Quercus.
Plura 10 *tural et idolum.*	Ex., Anth ambo, Sterculia.
Turba tural et idolum.	Ex., Anth ambo, Pinus.
	DU IDOLA ET DU IDA. SYN STEMMA.
Char et du idola.	Ex., Anth ambo, Morus. Ex., Flos mas et Anthos fæm, Betula, Di kunabulate.
Octo et du idola.	Ex., Anth ambo, Corylus.
Decem et du idola.	Ex., Anthos mas Flos fæm, Carpinus, Di kunabulate.
Plura 10 *et du idola.*	Ex., Flor ambo et Nuco-drupal, Juglans.
Turb ika et du idola.	Ex., Anth ambo, Liquidamber.
	TER IDOLA ET TER IDA. SYN STEMMA.
Un et ter idolum.	Ex., Anth ambo, Œgopricon.
Un et ter ida.	Ex., Anth ambo, Gnetum, Hippomane.
Quine fastigiate et ter ida.	Ex., Flor ambo, Cupania.
10 *Combinate et ter idola.*	Ex., Flor ambo, Jatropha.
Plura 10 *et ter idola.*	Ex. Flor ambo, Fagus.
Plura 10 *fastigiate et ter idola.*	Ex., Flor ambo, Croton, Acalypha.
Turba di fasciate et ter idola.	Ex., Anth ambo, Ricinus.
	BEV IDOLA ET BEV IDA. SYN STEMMA.
Turba et bev idola.	Ex., Flor ambo et Kalyk-orbulum, Platanus.
Turb ika tural et bev ida.	Ex., Anth ambo, Hura.
Char ika et bev ida.	Ex., Anth ambo et Di-kunabulate, Cupressus.
	THE DI GEMNATE ET DI STEMMA IKONIDULIUM OF THE GEMMIUM AND GEMMA.
	IDOLUM ET IDUM.
Un et idolum.	Ex., Flor ambo, Fallakne, Phelypæa.
Ikum et idolum.	Ex., Flos mas anthos fæm, Naias.
Un et idum.	Ex., Anth ambo, Nepenthes.

Do et idum.	Ex., Spaththekal ambo, Cecropia.
Trine et idolum.	Ex., Anth ambo, Osyris.
Trine et idum.	Ex., Flor ambo et Nuco-drupal, Maba.
Trine ika et idum.	Ex., Anth ambo, Ruscus.
Char et idolum.	Ex., Anth ambo, Hippophæ.
	Ex., Cym ambo, Trophis.
Char ika et idum.	Ex., Anth ambo, Viscum.
Quine et idolum.	Ex., Anth ambo, Anthoxylum.
Quine et idum.	Ex., Flor ambo et Nuco-drupal, Canarium.
Turba terminal et idum.	Ex., Anth ambo et Kupulate, Taxus.
	DU IDOLA ET DU IDA. AMBO GEMM DI STEMMA.
Un et du ida.	Ex., Anth ambo, Keura.
Ikum et du ida.	Ex., Spadithekal ambo, Pandanus.
Do et du ida.	Ex., Anth ambo et Kunabulate, Salix.
Char et du idola.	Ex., Anth ambo, Myrica.
	Ex., Flor ambo, Montinia.
Char et du ida.	Ex., Anth ambo et Kunabulate, Batis.
Quine et du idola.	Ex., Anth ambo et Imbricate, Humulus.
	Ex., Anth ambo et Cobrafrux, Cannabis.
Quine et du ida.	Ex., Flor ambo, Iresine.
Sept tural et du idola.	Ex., Anth ambo, Ephedra.
Plura decem et du idola.	Ex., Anth ambo, Mercurialis.
	Ex., Flor ambo, Euclea.
Turba et du idola.	Ex., Anth ambo, Cliffortia.
	TER IDOLA ET TER IDA. AMBO GEMM DI STEMMA.
Do et ter ida.	Ex., Spaththekal ambo, Valeriana.
Trine et ter idola.	Ex., Anth ambo, Excoecaria.
	Ex., Anthos mas Flos fæm, Juniperus.
	Ex., Cymar mas Anthos fæm, Caturus.
	Ex., Flor ambo, Restio.
Trine et ter ida.	Ex., Anth ambo, Carex.
4 *tural et ter idola.*	Ex., Anth ambo Cisampelos.
Quine et ter idola.	Ex., Anth ambo et Kalyk-kunabulate, Pistachia.
	Ex., Flor ambo et Cobrafrux, Astronium.
	Ex., Flor ambo et Opert, Zannonia.

Sex et ter idola.	Ex., Anth ambo, Dioscurea, Rajana, Smilax.
Sex et ter ida.	Ex., Anth ambo, Tamus.
Decem et ter ida.	Ex., Flor ambo, Schinus.
Plura 10 *ika et ter idola.*	Ex., Anth ambo, Datisca.
Turba tural et ter ida.	Ex., Anth ambo, Adelia.
	QUAD IDOLA ET QUAD IDA. AMBO GEMM DI STEMMA.
Char et quad idola.	Ex., Flor ambo, Brucea.
Quine et quad idola.	Ex., Anth ambo, Spinaccia.
Oct et quad idola.	Ex., Flor ambo, Rhodiola.
Oct ika et quad ida.	Ex., Anth ambo, Populus.
	QUINT IDOLA ET QUINT IDA. AMBO GEMM DI STEMMA.
Quine et quint idola.	Ex., Anth ambo, Acnida. Ex., Flor ambo, Feuillea.
Quine et quint ida.	Ex., Anth ambo, Antidesma.
Octo et quint idola.	Ex., Flor ambo, Margaritaria.
Decem et quint idola.	Ex., Flor et Cobrafrux, Coriaria. Ex., Flor et Opert, Kigglearia.
Decem et quint ida.	Ex., Flor et Opert, Carica.
	SEX IDOLA ET SEX IDA. AMBO GEMM DI STEMMA.
No et sex idola.	Ex., Spaththekal ambo Hydrocharis.
	NOV IDOLA ET NOV IDA. AMBO GEMM DI STEMMA.
Trine et nov ida.	Ex., Flor ambo, Empetrum.
	BEV IDOLA ET BEV IDA. AMBO GEMM DI STEMMA.
Turb ika et bev ida.	Ex., Anth ambo, Hedycarya, Flacourtia.
Name of each Di-tri-Gemnate and Separate Ikonidulium, or Botanical Class.	
Simplex.	THE TRI-GEMNATE ET TRINE-DOMAL IKONIDULIUM OF THE GEMMIUM AND GEMMA.
	AMBO GEMM SYN STEMMA ET GEMMIUM SEPAR STEMMA.
Char ikona et du idola.	Ex., Anth ambo, Anthospermum. The Gemmium of the Separ stemma Anth also.

Quine ikona et du idola.	Ex., Flor ambo, Arctopus. The Gemmium of the Separ-stemma Flor also.

Complex.	THE TRI-GEMNATE ET TRINE STEMMAL IKONIDULIUM OF THE GEMMIUM AND GEMMA.
	AMBO GEMM SYN STEMMA ET UTER GEMM SEPAR STEMMA.
Quine ikona et idolum.	Ex., Anth ambo, Ceratonia. Each gemm of each Separ stemma Anth also.
Trine ikona et idolum.	Ex., Anth ambo, Ficus. Each gemm of each Separ-stemma Anth also.

The Gemmos, or Hermaphral gemm bud, is produced together with the gemm bud of Uter gender from the same stem; otherwise the Gemmos and the Uter gemm bud are produced from separate stems.

Name of each Hermaphral et Uter gemm intergemmatio Ikonidulium, or Botanical Class.

Simplex.	PRIMO.—THE GEMMOS ET GEMMIUM IKONIDULIUM.
	GEMMOS ET GEMMIUM SYN STEMMA. IDOLUM ET IDA.
Do et quine tubin ad.	Ex., Flor ambo, Ophioxylum.
Trine et trine ad.	Ex., Anth et glum ambo, Apluda. Ex., Flor ambo, Cenchrus.
Char et char ad.	Ex., Flor ambo, Brabeium, Valantia.
Quine et quine ad.	Ex., Anth ambo, Govania.
Octo et oct ad.	Ex., Flor ambo, Acer.
Decem et quine ad.	Ex., Flor ambo et Coopert, Mimosa.
Decem et decem ad.	Ex., Anth ambo, Terminalia.
	GEMMOS ET GEMMIUM SYN STEMMA. DU IDOLA ET DU IDA.
Trine et trine duad.	Ex., Anth ambo et Glum, Andropogon, Œgilops, Ischæmum, Holchus, Manisurus, Spinifex (Graminiæ plantæ).
Quine et quine duad.	Ex., Anth ambo, Celtis. Ex.. Flor ambo, Hermas.
	GEMMOS ET GEMMIUM SYN STEMMA. TER IDOLA ET TER IDA.
Sex et sex ter ida.	Ex., Anth ambo, Veratrum.

Complex.	GEMMOS ET GEMMIUM DI STEMMA.
Un et un ad.	Ex., Anth et glum ambo, Chrysitrix.
Char et char turrin ad.	Ex., Flor ambo et Cobrafrux, Stilbe.
Decem et quine ad.	Ex., Anth ambo et Nuco-drupal, Nyssa.
Octo et oct ad.	Ex., Flor ambo, Diospyros.
Decem et decem ad.	Ex., Flor ambo, Anacardium.

	GEMMOS ET GEMMIUM DI STEMMA. DU IDOLA ET DU IDA.
Char et char duad.	Ex., Anth ambo, Anthospermum.
Quine et quine duad.	Ex., Flor ambo, Panax.

SECUNDO.—THE GEMMOS ET GEMMA IKONIDULIUM.

Simplex.	GEMMOS ET GEMMA SYN STEMMA. IDOLUM ET IDA.
Idolum et char ad.	Ex., Anth ambo, Parietaria. Ex., Idum et char contermin idum. Anth ambo, Agyneja.
Idum et turba idum.	Ex., Flor ambo, Clusia.

	GEMMOS ET GEMMA SYN STEMMA. DU IDOLA ET DU IDA.
Du idola et quine duad.	Ex., Anth ambo, Atriplex.

	GEMMOS ET GEMMA SYN STEMMA. TER IDOLA ET TER IDA.
Ter idola et 5 contermin ad.	Ex., Anth gemma Flor gemmos, Andrachne.

Complex.	GEMMOS ET GEMMA DI STEMMA.
Idolum et do ad.	Ex., Anth ambo, Fraxinus.
Idolum et sex ad.	Ex., Flor ambo, Pisonia.

The Gemmos is produced, together with the Uter gemm, upon the same stem; while the Gemma is produced upon a separate stem. Otherwise the Gemmora are produced either upon the same stem, or upon separate stems; and the Fructification is effected by the Meso-gemmation or intermingled and contingent conflux of the Ikona and Idola of the several Hermaphral gemm buds.

Name of each Hermaphral et Uter gemm Meso-intergemmatio Ikonidulium, or Botanical Class.

Complex.	THE GEMMOS ET UTER GEMM TRIDOMAL ET DI STIRPENAL MESO-INTERGEMMATIO.
	GEMMOS ET GEMMIUM SYN STEMMA ET GEMMA SEPAR STEMMA.
Sex et sex ad.	Ex., Flor ambo et Syn-kunabulate, Gleditsia. The gemma of the Separ stemma Flor et Kunabulate also.
	GEMMOS ET GEMMA SYN STEMMA ET GEMMA SEPAR STEMMA.
Idolum et do ad.	Ex., Anth ambo et Syn-racymbial, Fraxinus. The gemma of the Separ stemma Anth et Racymbial also.
Meso complex.	THE GEMMORA ET GEMMORA TER QUATERQUE DOMAL ET DI-STIRPENAL MESO-INTERGEMMATIO.
	GEMMORA ET GEMMORA INTERGEMMATIO SYN STEMMA.
Sex ad et sex ad.	Ex., Syn-spadithekal ambo, Musa.
Oct ad et oct ad.	Ex., Flor ambo, Clusia.
Turba idum et turba idum.	Ex., Flor ambo et Syn-chor-rythmal, Acer.
	GEMMORA ET GEMMORA INTERGEMMATIO DI STEMMA.
Sex ad et sex ad.	Ex., Flor ambo, Pisonia.
Turba et bevad, turba et bevad.	Ex., Flor ambo, Napæa.

SIGNIFICATION OF LATIN NUMERALS AND TERMS.

N.B.—Un, signifies 1. Mono, mona, single. Do, duo, 2. Trine, tri, ter, 3. Char, quater, 4. Quadra, 4 square, or 4 opposite. Quinque, quine, quint, 5. Sex, 6. Septem, 7. Octo, 8. Novem, Nono, 9. Decem, 10. Plura decem, more than10. Turba, an uncertain number, or more numerous than 20. Beva, a collection, a group, or small assemblage: Ex., "a bevy of fair maids," a bevy of birds. Bev ida, an uncertain number of Ida, or more numerous than 10.

Minyæ fallæ, small leaves.—Kyro, kyra, bound, fastened, or disposed all round. Ex., The Kalyces, or fructification buds of Cheiranthus (the stock, or wallflower) are gemnate all round the stem.—Fastigiate ikona, the ikona erect, and their stypia combined by bractela.—Divergent ikona, the ikona, irradiate or horizontal.—Fabbralate, constructed and framed of several organical parts and portions.

Par; like, similar.—Parvis, small.—Meso, mingled.

OF THE FORTY-FOUR FRUCTIFICATION, OR QUATERNAL BOTANICAL CLASSES,

Distinguishing vegetative products, or plants according to an Iulian system of arrangement and Julian method of classification ; and comprehending several botanical Modia et Di-modia of gemmation, congemmation, and fructification. Otherwise, comprehending several diversified ways and modes of the production, distribution, allocation, disposition, arrangement, and envelopment, either singly or together, of the Fructification buds of plants comprising the Kum buds and Sporamenta of Sporigerent plants ; as well as the Gemm buds and Gemm amenta of Frugiferent and Fructugerent vegetative products.

QUATERNAL BOTANICAL CLASSES.

The Multi-separal et Equi-sparginal, or Supra-frond et Peri-frond Modium, comprehending

I. The Suprafrond et Sporigerent Modium ; or Sporul-amental way and mode of gemmation, congemmation, and fructification of Sporigerent vegetative products (*i.e.*, Algæ, Oprinæ, Fungiæ, Mossæ, Frondo-fernæ plantæ), Comprising

1. The Mono-sporamental, or Capitular, Ex., Hypnum, Bryum
2. The Spikulate, or Multi-contiguous et Sessinal peri-termo, Ex., Ophioglossum
3. The Panikulate, or Multi-spikulate et Peri-frond termina, Ex., Osmundia
4. The Equi-sparginal, or Multi-separal et Supra frond, Ex., Polypodium
5. The Axiliar, or Interlimbulate, Ex., Fontinalis
6. The Stirpe-thekal, or Placental, Ex., Isoetes

II. The Suprafrond et Gemmiferent Modium ; or Frondeal et Fallæal way and mode of gemmation, congemmation, and fructification of Stirpetiolatæ et Crass-stirpetiolatæ frondosæ plantæ, Comprising

1. The Frondo stirpetiolate et interlimbulate, or Axiliar, Ex., Lilia convallaria
2. The Frondo stirpetiolate et peri-fyleum, Ex., Fallanthus
3. The Frondo stirpetiolate et peri-fallæ, Ex., Cactus
4. The Frondo stirpetiolate et peri-crassiola, Ex., Cactus
5. The Frondo stirpetiolate et peri-latera, Ex., Cactus
6. The Frondo stirpetiolate et peri-glomera, Ex., Cactus, Euphorbia

The Synchordant et Sessinal, or Spikulate et Plura-spikulate Modium, comprehending

III. The Culmi-terminal et Spikulate Modium ; or Contiguous et Chorosessinal way and mode of gemmation, congemmation, and fructification of Graminiæ plantæ, or geniculate and frumental grasses of the field ; Comprising

1. The Culmi-terminal et Spikulate, Ex., Triticum, Phleum
2. The Culmi-terminal et Panikulate, or plura choro spikulate, Ex., Avena, Poa

IV. The Cauli-terminal et Spikulate Modium; or Contiguous et Kyr-sessinal way and mode of gemmation, congemmation, and fructification of several kinds of plants having gemm amental kalyces arranged kyr-rally, or all round the terminate portion of a Cauline stem; Comprising

1. The Cauli-terminal et Spikulate, Ex., Physostegia imbricata. K.G.
2. The Cauli-terminal et Spandinkulate, or plura kyr-spikulate, Ex., Veronica spicata. K.G.

V. The Umby-terminal et Spikulate Modium; or Contiguous et Sequo-sessinal way and mode of gemmation, congemmation, and fructification of several kinds of plants having Cymar-amental kalyces arranged around and along the terminal portion of an umbylluminate stem, comprising

1. The Umby-terminal et Spikulate, Ex., Plantago, K.G.
2. The Umby-terminal et Panikulate, or plura separ spikulate, Ex., Pontederia

The Terminal et Syn-terminal; or Choro-vinkulate et Marginal Modium, Comprehending

VI. The Marginal Modium; or Monal et Syn-terminal way and mode of gemmation, congemmation, and fructification ef Radikaliæ herbæ, having a stem destitute of leaves, terminated by a coronal kalyx; otherwise, the scapulus having several syn-terminal frubinkula divergent from the apex of its shaft; each frubinkulum supporting a tyaral kalyx. Each coronal, or tyaral gemm bud, enveloped by a Vestium, or Peri-cymar.

1. The Coronal et Mono gemm modium singularis, Ex., Primula
2. The Tyaral et Plura gemm, modium multiplex, Ex., Docedatheon

VII. The Marginal Modium; or Monal et Syn-terminal way and mode of gemmation, congemmation, and fructification of Bulbo-stem herbæ, having a stem terminated by a capitular gemm bud; otherwise terminated by several tyaral gemm buds. Each several gemm bud destitute of a Vestium, or Peri-cymar.

1. The Cymar capitular et Mono gemm, Ex., Tulipa
2. The Cymar capitular et Plura gemm, Ex., Amaryllis

The Synchordant et Sequental; or Peri-vinkulate et Rymbial Modium, comprehending

VIII. The Rymbial Modium; or Equi-vinkulate et Co-marginal way and mode of gemmation, congemmation, and fructification of several kinds of Radikaliæ herbæ et Ab-ovo natæ plantæ, having an umbyllumnate stem, or a thyrsiulate stem supporting one or several parallel series of kalyces

along the terminal portion of its shaft. Each gemm bud enveloped by a Vestium, or Peri-cymar; otherwise enveloped by a glum-amental perifrux, Comprising

1. The Symonum, or Marginal, Ex., Digitalis
2. The Symbium, or Bi-marginal, Ex., Ophrys
3. The Alternum, or Alterno-vinkulate, Ex., Myosotes
4. The Resymbium, or Plura-marginal, Ex., Lupinus
5. The Groopium, or Gyr-rymnal, Ex., Juncus

IX. The Rymbial Modium; or Equi-vinkulate et Co-marginal way and mode of gemmation, congemmation, and fructification of several kinds of Bulbo-stem herbæ and Radikaliæ herbæ, having an umbyllumnate or nod-annular stem supporting one or several parallel series of kalyces arranged along the terminal portion of its shaft. Each gemm bud destitute of a Vestium, or Peri-cymar; Comprising

1. The Cymonum, or Marginal,
2. The Cymbium, or Co-marginal, Ex., Hyacinthus
3. The Alternum, or Alterno-vinkulate, Ex., Gladiolus
4. The Resymbium, or Plura-marginal, Ex., Hyacinthus

The Nod Annular et Cyclo-tural; or Gyro-cyclar et Thyrsulate Modium, Comprehending

(The Gemm buds arranged around the nodular junctura of the stem.)

X. The Nod Annular Modium; or Gyro-cyclar et Thyrsulate way and mode of gemmation, congemmation, and fructification of Bracchiulate and Thrysulate plants, Comprising

1. The Gyrum, or Gyro-cyclar et Separ-cyclar modium, Ex., Lamium
2. The Cyclostessilum, or Omnino-cyclar modium, Ex., Rheum
3. The Obliqum, or Obliquo-cyclar modium, Ex., Daphne

The Verticilliate et Cyclo-turial; or Cetra-concyclar et Concentrical Modium, Comprehending

(The Gemm buds arranged upon the Cetral axenta terminating the stem.)

XI. The Verticilliate et Cetral Modium; or Hermaphræ et Cymar gemm way and mode of gemmation, congemmation, and fructification of Bracchiulate and Thrysulate plants, Comprising

1. The Gemmora omnino cetral et concentrical, Ex., Sonchus
2. The Cymarula circum Gemmora, Ex., Aster

XII. The Verticilliate et Cetral Modium; or Meso-gemm et Ambo gemm way and mode of gemmation, congemmation, and fructification of Bracchiulate and Thyrsulate plants, Comprising

1. The Gemmæ circum Gemmora, Ex., Helianthus
2. The Gemmæ circum Gemmia, Ex., Othonna

The Culminate et Cyclo-turial; or Pyro-concyclar et Diamedial Modium, Comprehending

(The Gemm buds arranged upon the Pyro-culminate axenta terminating the stem.)

XIII. The Diamedial Modium; or Pyro-concyclar et Culminate way and mode of gemmation, congemmation, and fructification of Bracchiulate and Thyrsulate plants. The several congemnate and contiguous gemm buds comprising and constituting a Globo-spherical, or Hemispheral, or Obconoform, or Cylindrical Diademoum, Comprising

1. The Thyrsium, or Mas Diademoum, Ex., Humulus
2. The Thyrsa, or Fæm Diademoum, Ex., Humulus
3. The Thyrsos, or Hermaphral Diademoum, Ex., Cynara, Scabiosa
4. The Strobilum, or Hermaphral et Uter gemm Diademoum, Ex., Spheranthus

The Dividal et Multi-dividal; or Multi-terminal et Umbyllinkulate Modium, Comprehending

The Terminal et Rami-terminal modia; or Dividal et Umbyllinkulate way and mode of gemmation, congemmation, and fructification of Arborescent plants and Vineal plants, as well as of Bracchiulate plants.

XIV. The Terminal et Rami-terminal et Sessinal Modium; or Sessinal et Groopial way and mode, Comprising

1. The Mythrum, or Mono-sessinal et Terminal-Singularis, Ex., Napoleana, K.G.
2. The Groopium, or Plura-sessinal et Terminal-Contiguous, Ex., Vinca rosea
   Ex., Lonicera, K.G.

XV. The Terminal et Rami-terminal et Apo-vinkulate Modium; or Mono-vinkulate et Syn-vinkulate way and mode, Comprising

1. The Mythrulum, or Mono-vinkulate et terminate, modium singularis,
2. The Umbulum, or Plura-vinkulate et synterminal modium divergent, Ex., Geranium

XVI. The Terminal et Rami-terminal et Di-tri-quinque vinkulate Modium; or Di-ligate et Di-binulate way and mode, Comprising

1. The Terminal et Dividal, or 2, 3, 5 Di-ligate, Ex., Coreopsis, K.G.
2. The Terminal et Dividal, or 2, 3 et plura Di-binulate, Ex., Pisum

XVII. The Terminal et Rami-terminal et Apo-vinkulate Modium; or Choro-vinkulate et Plura choro-vinkulate way and mode, Comprising

1. The Chorrythmum, Ex., Di rythmæ
2. The Conturrythmum, Ex., Apium, Anethum
3. The Spheroturrythmum, Ex., Lychris
4. The Dischorturrythmum, Ex., Sambucus

XVIII. The Terminal et Rami-terminal et Peri-vinkulate Modium ; or Sequental et Rymbial way and mode, Comprising

1. The Symonum, or unicum Chorulum.
2. The Rymbium, or duplex Chorulum, Ex., Aloes
3. The Alternum, or alternum Chorulum, Ex., Laburnum
4. The Resymbium, or triplex et quadruplex Chorulum. Ex., Æsculus

XIX. The Terminal et Rami-terminal et Spikulate Modium ; or Kyr-sessinal et contiguous way and mode, Comprising

1. The Rami-terminal et Spikulate, Ex., Verbena
2. The Rami-terminal et Spandinkulate, Ex., Veronica

XX. The Terminal et Rami-terminal et Nod-annular ; or Gyro-cyclar et Separ-cyclar modium.

XXI. The Terminal et Rami-terminal et Verticilliate ; or Cetra-concyclar et Concentrical modium.

XXII. The Terminal et Rami-terminal et Diamedial ; or Pyro-con-cyclar et Culminate modium.

XXIII. The Terminal et Rami-terminal et Kalyk-kunabulate Modium ; or Squamal et Imbricate et Separ teguliate way and mode of several kinds of timber trees, Comprising

1. The Kalyk-konulum, Ex., Pinus
2. The Kalyk-keleum, Ex., Betula
3. The Kalyk-orbulum, Ex., Platanus
4. The Kalyk-glumulum. Ex., Ephedra
5. The Kalyk-tegulium, Ex., Salix, Populus

XXIV. The Terminal et Rami-terminal et Impar fasciculate Modium ; or Multi impar-vinkulate et Impar-marginal way and mode, comprising

1. The Klusturium, or Multi-fasciculate et impar-marginal, Ex., Uva vitis
2. The Spyrinkulum, or Multi-kyrrymbial et impar-marginal, Ex., Amaranthus

The Axiliar ; or Inter-ramal, Inter-bracchiulate, et Inter-fallæal Modium, comprehending

The Axiliar et Rami-axiliar Modia et Di-modia ; or Inter-ramal, Inter-bracchiulate, et Inter-fallæal way and mode of gemmation, congemmation, and fructification of Bracchiulate and Thyrsiulate plants ; as well as of Vineal and Arborescent vegetative products.

XXV. The Axiliar et Rami-axiliar et Sessinal Modium ; or Sessinal et Groopial.

XXVI. The Axiliar et Rami-axiliar et Apo vinkulate Modium ; or Mono-vinkulate et Syn-vinkulate (comprising the Umbulum). Ex., Convolvulus

XXVII. The Axiliar et Rami-axiliar et Di-tri-quinque vinkulate Modium ; or Di-ligate et Di-binulate, Ex., Polygonum

XXVIII. The Axiliar et Rami-axiliar Apo-vinkulate Modium ; or Choro-vinkulate et Plura choro-vinkulate (comprising the Chor-rythmum et Contur-rythmum).

XXIX. The Axiliar et Rami-axiliar et Spikulate Modium ; or Sequental et Rymbial way and mode.

XXX. The Axiliar et Rami-axiliar et Spikulate Modium ; or Kyrsessinal et Contiguous.

XXXI. The Axiliar et Rami-axiliar et Nod-annular Modium ; or Gyro-cyclar et Separ-cyclar. Ex., Rumex

XXXII. The Axiliar et Rami-axiliar et Verticilliate Modium ; or Cetra-concyclar et Concentrical.

XXXIII. The Axiliar et Rami-axiliar et Diamedial Modium ; or Pyro-concyclar et Culminate.

XXXIV. The Axiliar et Rami-axiliar et Kalyk-kunabulate ; or Squamal et Imbricate et Separ teguliate.

XXXV. The Axiliar et Rami-axiliar et Impar fasciculate ; or Multi-Impar fasciculate et Impar-marginal.

The Involucral et Spadithekal Modium, Comprehending

XXXVI. The Involucral et Spadithekal Modium ; or Multi-choro-vinkulate way and mode of gemmation, congemmation, and fructification of Palmæ plantæ, or Palma-frond trees and fruit trees, Comprising

1. The Involucral et Spadithekal et Multi-vinkulate, Ex., Cocos palma.
2. The Involucral et Spadithekal et Multi-Gyro-cyclar, Ex., Banana palma.

The Involucral et Spaththekal Modium, Comprehending

XXXVII. The Involucral et Spaththekal Modium : or Apo Spaththekal et Capitular way and mode of gemmation, congemmation, and fructification of several kinds of Bulbo-stem herbæ and Radikaliæ herbæ, Comprising

1. The Apo spaththekal et Monogemm, or Capitular, Ex., Galanthus
2. The Umby spaththekal et Tyaral, or Plura Capitular, Ex., Butomus

XXXVIII. The Involucral et Spaththekal Modium ; or Umby Spaththekal et Peri stem way and mode of gemmation, congemmation, and fructification of several kinds of Bulbo-stem herbæ and Radikaliæ herbæ, Comprising

1. The Umby spaththekal et Peri termo, or Spikulate. Ex., Arum
2. The Umby Spathekal et Omnino spaththekal, Ex., Orchis

The Separ gemmatio ; or Di-domal et Di-axental and Separate Modia et Di-modia of the Mono-sexual gemm buds of the Grass, Herb, Tree, Fruit-tree, Fruit-plant, or Ab-ovo natal vegetative product, Comprehending

XXXIX. The Ambo gemm Separ gemmatio Modium ; or Di-domal et Di-gemnate way and mode of gemmation, congemmation, and fructification, Comprising

1. The Ambo gemm Syn-stemma gemmatio modium, Ex. Quercus, Pinus
2. The Ambo gemm Di-stemma gemmatio modium, Ex., Cannabis, Lychnis

XL. The Ambo gemm Separ gemmatio Modium ; or Di-domal et Di-tri-gemnate way and mode of gemmation, congemmation, and fructification, Comprising

1. The Ambo gemm et Gemmium Syn-stemma gemmatio modium.
2. The Ambo-gemm et Uter gemm Di-tri-stemma gemmatio modium.

The Separ gemmatio; or Di-domal et Di-stirpenal and Separate Modia et Di-modia of the Hermaphral and Mono-sexual gemm buds of the Grass, Herb, Tree, Fruit-tree, Fruit-plant, or Ab-ovo natal vegetative product, Comprehending

XLI. The Gemmos et Gemmium Intergemmatio Modium, Comprising

1. The Gemmos et Gemmium Syn-stemma.
2. The Gemmos et Gemmium Di-stemma.

XLII. The Gemmos et Gemma Intergemmatio Modium, Comprising

1. The Gemmos et Gemma Syn-stemma.
2. The Gemmos et Gemma Di-stemma.

The Ter quaterque Separ gemmatio, or Hermaphral et Uter gemm Meso-intergemmatio modia et Di-modia of the Fructification buds of several kinds of vegetative products or plants, Comprehending

XLIII. The Gemmos et Uter gemm Tri-domal et Di-stirpenal Meso-intergemmatio Modium, Comprising

1. The Gemmos et Gemmium Syn-stemma and Gemma Separ stemma.
2. The Gemmos et Gemma Syn-stemma and Gemma Separ stemma.

XLIV. The Gemmora et Gemmora Meso-intergemmatio Modium, Comprising

1. The Gemmora et Gemmora Syn-stemma.
2. The Gemmora et Gemmora Di-stemma.

OF THE SEVENTY-FIVE GENERAL, OR QUINAL BOTANICAL CLASSES.

Distinguishing vegetative products, or plants, according to an Iulian system of arrangement, and Julian method of classification; and comprehending the primary phenomena and distinctive modes of propagation, otherwise comprehending the primary divisional distinctions of vegetative products, or plants.

SPORIGERENTES.

ALGÆ PLANTÆ. MARINÆ. GENUS.

1. Fallæ-organical et Tuberculatæ, Ex., Fucus, Ulva
2. Raditurial et Articulatæ, Ex., Conferva

OPRINÆ PLANTÆ.

3. Cespe-fallæ et Supraficial, Ex., Riccia, Targionia
4. Cespe-fallæ et Stipulatæ, Ex., Anthoceros, Marchantia
5. Divaricatæ et Tuberculatæ, Ex., Lichen, Blasia

FUNGIÆ PLANTÆ. A FALLÆ.

6. Orbinal, Ex., The Truffle
7. Kupo-stipulatæ, Ex., Hydnum
8. Stirpe-limbulatæ, Ex., Phallus, Clavaria

MOSSÆ PLANTÆ. MINY-LIMBULATÆ.

9. Erectæ, Ex., Bryum
10. Viticulatæ, Ex., Jungermannia

FRONDO FERNÆ PLANTÆ.

11. Raditurial et Supra-frond, Ex., Polypodium
12. Stipulatæ et Stirpenal, Ex., Onoclea
13. Articulatæ et Stirpenal, or Axiliar, Ex., Chara

FRUGIFERENTES.

GRAMINIÆ PLANTÆ. CESPITOSÆ.

14. Geniculatæ et Spikulatæ, Ex., Triticum, Phleum
15. Geniculatæ et Panikulatæ, Ex., Avena, Poa

Radikaliæ herbæ Knobbo-placental; having rete-tissued leaves.

PYTHYMNÆ PLANTÆ. A FALLÆ.

16. Pythymnæ Anthal gemm, Ex., Juncus, Scirpus
17. Pythymnæ Floral gemm, Ex., Butomus

CALAMŒNÆ PLANTÆ. GENUS.

18. Calamœnæ Anthal gemm, Ex., Bamboo (cane & ratan)
19. Calamœnæ Floral gemm Ex., Canna, Amomum

UMBYLLUMNÆ PLANTÆ.

20. Umbyllumnæ Anthal gemm, Ex., Plantago
21. Umbyllumnæ Floral gemm, Ex., Orchis

SCAPULUMNÆ PLANTÆ.

22. Corona Scapulumnæ, Ex., Primula
23. Tyaro Scapulumnæ, Ex., Dodecatheon

NODULUMNÆ PLANTÆ.

24. Nodulumnæ et Spaththekal, Ex., Iris
25. Nodulumnæ et Chorrythmal, Ex., Anethum
26. Nodulumnæ et Di-tri-quinque ligate

CAULINÆ PLANTÆ. BRACCHIULATÆ.

27. Bracchiulatæ et Separ fallæ, Ex., Urtica
28. Bracchiulatæ et Frondulatæ, Ex., Dahlia

CETRA CONGEMNATÆ ET VERTICILLIATÆ.

29. Gemmora omnino cetral, Ex., Sonchus
30. Cymarula circum gemmora, Ex., Aster
31. Gemmæ circum gemmora, Ex., Helianthus
32. Gemmia circum gemmæ, Ex., Othonna

Also distinguished by the structure of the Stem, as

Cetra Scaphiulumnæ, Ex., Leontodon
Cetra Scapulumnæ, Ex., Bellis
Cetra Thyrsiulumnæ Ex., Helianthus
Cetra Bracchiulatæ Ex., Senecio

THYRSO CONGEMNATÆ ET CULMINATÆ.

33. Spheranthæ culminatæ, Ex., Cephalanthus
34. Hemispheranthæ culminatæ, Ex., Statice
35. Pyroanthæ culminatæ, Ex., Dipsacus

GYRO CONGEMNATÆ ET NOD-ANNULATÆ.

36. Nod-annulatæ et Gyro-cyclar, Ex., Salvia-Lamium
37. Nod-annulatæ et Obliquo-cyclar, Ex., Daphne
38. Nod-annulatæ et Omnino-cyclar

Bulbo-stem herbæ, Di-placental having filo-tissued leaves.

SCAPHIULUMNÆ PLANTÆ.

39. Tyaro Scaphiulumnæ, Ex., Narcissus
40. Diademio Scaphiulumnæ, Ex., Cepa

NODULUMNÆ PLANTÆ.	GENUS.
41. Nodulumnæ Cymaral,	Ex., Tulipa
42. Nodulumnæ Spaththekal,	Ex., Galanthus
UMBYLLUMNÆ PLANTÆ.	
43. Bi-marginatæ,	Ex., Ophrys
44. Plura-marginatæ,	Ex., Hyacinthus
STIRPETIOLATÆ PLANTÆ.	
45. Stirpetiolatæ,	Ex., Fallanthus, Convallaria
46. Crass-stirpetiolatæ	Ex., Cactus.
AB-OVO NATÆ PLANTÆ.	
47. Separ fallæ,	Ex., Spinaccia
48. Frondulatæ,	Ex., Adonis
VINEÆ PLANTÆ, OR BINEOLÆ.	
49. Vites,	Ex., Uva vitis, Hedera vitis
50. Vitiles,	Ex., Pisum vitilis, Peponum vitilis
51. Viticulæ,	Ex., Rana viticulus, Fragaria viticulus
52. Vitices,	Ex., Vinca vitex
PALMÆ PLANTÆ, OR PALMA FROND TREES AND FRUIT TREES.	
53. Gemmæ Choro-vinkulatæ,	Ex., Cocos
54. Gemmæ Gyro-cyclar,	Ex., Banana
ARBORES RAMOSÆ FRUGIFERENTES.	
SEPAR FALLÆ.	
55. Separ fallæ et Kunabulatæ,	Ex., Betulus, Salix, Populus
56. Separ fallæ et Di-loculatæ,	Ex., Ulmus, Tilia
FRONDULATÆ OMNINO-RAMAL ET KALYK-KONULATÆ.	
57. Omni-ramal et Aco-fallæal,	Ex., Araupinus Brasiliana K. G.
58. Omni-ramal et Parvi-fallæ,	Ex., Abies
59. Omni-ramal et Miny-fallæ,	Ex., Thuja
60. Omni-ramal et Equi-frondulatæ.	Ex., Cupressus, Taxodium
61. Omni-ramal et Di-crinulatæ,	Ex., Pinus larix, P. Cimbra
FRONDULATÆ RAMI-TERMINAL ET DI-LOCULATÆ.	
62. Rami-terminal et Digi-foliatæ,	Ex., Cytisus
63. Rami-terminal et Remi-foliatæ,	Ex., Fraxinus

ARBORES RAMOSÆ FRUCTUGERENTES.

SEPAR FALLÆ.	GENUS.
64. Separ fallæ et Nucodomal,	Ex., Corylus
65. Separ fallæ et Bakkodomal,	Ex., Prunus
66. Separ fallæ et Hesperodomal,	Ex., Citrus
67. Separ fallæ et Melodomal,	Ex., Pyrus

FRONDULATÆ.

68. Frondulatæ et Nucodomal,	Ex., Juglans
69. Frondulatæ et Bakkodomal,	Ex., Berberis, Sambucus
70. Frondulatæ et Hesperodomal,	Ex.. Leetchee
71. Frondulatæ et Melodomal,	Ex., Anvali (or Nili camaram)

AQUARINÆ ET ALLUVIÆ PLANTÆ.

72. Sabrinæ,	Ex., Nymphæa
73. Naiadæ,	Ex., Myriofallæ
74. Inundæ,	Ex., Isoetes, Crinoetes
75. Alutilæ,	Ex., Elatine

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ERRATA.

Page 14, *for* Encyclopepia, *read* Encyclopedia: *ibid*, *for* Plautarum, *read* Plantarum. Page 15, *for* Branehed, *read* Branched. Page 16, *for* Graminæ, *read* Graminiæ. Page 19, *for* nodiulum, *read* nodulum. Page 21, *for* viseo, *read* visco: *ibid*, *for* pome-amental, *read* pom-amental: *ibid*, *for* uvramental, *read* uv-amental. Page 22, *for* ceylon *read* Ceylon. Page 23, *for* alio, *read* also: *ibid*, *for* radical *read* radikal. Pages 27 & 28, *read* gemmlets and Gemmlets. Page 30, *for* falleal, *read* fallæal: *ibid*, *for* filro, *read* fibro. Page 32, *for* alæat, *read* alæate. Pages 33 and 34, *for* Stirpetiolate, *read* Stirpetiolatæ. Page 36, *for* ceda, *read* cedar. Page 47, *for* columna, *read* columnar: *ibid*, *for* Passive, *read* Active. Page 85, *after* Potentilla, *read* Ex., 5 Sepallula, Rubus. In Sexdomal Classes, passim, *for* sepallia, *read* sepallula.