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ON THE
NOMENCLATURE
OF THE
NEW LONDON PHARMACOPŒIA.

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OF THE

NOMENCLATURE

OF THE

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Remarks
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OF
THE NEW
LONDON PHARMACOPŒIA.

READ BEFORE
THE LIVERPOOL MEDICAL SOCIETY.

By JOHN BOSTOCK, M. D.
LATE PRESIDENT OF THE EDINBURGH MEDICAL SOCIETY,
&c. &c.

LIVERPOOL,
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1810.

Memoranda

of the

CONSTITUTION

THE NEW

LONDON PHARMACEUTICAL

AND DISPENSARY

THE LONDON MEDICAL SOCIETY

BY JOHN BOSTON, M.D.

WITH NOTES ON THE HISTORY OF THE DISPENSARY

OF THE

LONDON

AND DISPENSARY

OF THE

PHARMACEUTICAL AND DISPENSARY

OF THE

Preface.

IN the following pages, the Author has confined his remarks solely to the nomenclature of the London Pharmacopœia, because it was on this subject alone that he proposed to treat. Had his object been to criticise either the chemistry or pharmacy of the work, he conceives that he should have found ample scope for animadversion. It is much to be lamented, that, on so important a subject, advantage should not have been taken of the advice and assistance of the most eminent scientific characters of the age, even although out of the pale of the College.—A Royal Charter, or an Act of Parliament, may bestow honors and emoluments, but they are unable to confer knowledge and learning.

Knot's Hole Bank, near Liverpool.

OCTOBER 1, 1810.

Preface.

In the following pages, the Author has confined his remarks solely to the non-metallurgy of the London Correspondence, because it was on this subject alone that he proposed to treat. His object here is to criticize either the chemistry or philosophy of the work, he considers that he should not have found much scope for animadversion. It is much to be lamented, that, on so important a subject, advantage should not have been taken of the advice and assistance of the most eminent scientific characters of the age, even although out of the pale of the College.—A Royal Charter, or an Act of Parliament, may bestow honors and emoluments, but they are unable to confer knowledge and learning.

Not a little thank you for your letter.

Yours, &c.

REMARKS
ON
THE NOMENCLATURE
OF THE
NEW LONDON PHARMACOPŒIA.

IT is now some time since I had the honor of addressing the Society on the subject of pharmaceutical nomenclature, and more especially on the propriety of employing, in medical prescriptions, the modern language of natural history and chemistry.^(a) I attempted to show, that the advantage to be gained by this assimilation of terms, was more imaginary than real, while the evils to be apprehended from the change, were numerous and considerable. I endeavoured to enforce my opinion by examining the manner in which the reform had been executed by the Edinburgh College, and I

(a) See "Remarks on Pharmaceutical Nomenclature," &c. published by Messrs. Longman and Co. 1807.

believe, that most of the members of this Society agreed with me in thinking, that, notwithstanding the acknowledged talents of the gentlemen who were employed in this case, the result of their labours was so imperfect, as to afford a strong argument against any future trials of the same nature. The London College of Physicians having, however, thought fit to follow the example of their Edinburgh brethren, and to employ a nomenclature, professedly constructed on scientific principles, in the new edition of their pharmacopœia, I felt myself called upon to lay before you my remarks on their publication. It will be interesting to observe, whether this second attempt at reform has been more fortunate than the first, and likewise to examine into the practical merits of a system, to which we are all of us bound to submit.

The principal argument for the introduction of scientific terms into pharmacy, either as stated by the London College collectively, or by Dr. Powell, who has come forwards as their principal agent, appears to be, that the language would, by this means, be more uniform, and less liable to alteration; and should this really prove to be the case, it would be an argument of such weight, as almost to decide the question in favour of the

reformists.(b) The considerations that I before offered against the use of a scientific nomenclature, I shall not think it necessary formally to recapitulate; I shall occasionally refer to them in the following pages, and their force will be better appreciated, when viewed in connexion with particular facts, than when only brought forwards in the way of general statements.

Before we enter upon a detailed examination of the pharmacopœia, I shall mention a circumstance which has a reference to one of the supposed advantages of the scientific terms, namely, their effect in producing uniformity in the language of medicine. The two British Colleges of London and Edinburgh both of them profess to proceed upon the principle of the modern scientific discoveries, and they were published at only a short interval from each other, yet so far is this alleged uniformity from being the result of the new system, that we find the difference between the altered pharmacopœiæ, to be as great, as between the new and the old one. The fact is, that out of between 220 and 230 articles of the materia

(b) Although this is held out as the chief motive for the changes that have been adopted, they confess, that, in some instances, they have proceeded upon lighter grounds, "*nonnulla etiam quæ addi postulabat ipsius operis ordo, et concinnitas.*"

medica, the greatest part of which are the same in both, there are but 27 to which exactly the same denomination is applied by the two Colleges.(c) Of these, 20 retain the names which they had in the former edition of the pharmacopœia, and one, carbo ligni, is now for the first time introduced into the materia medica; so that it is but to six articles,* that the supposed advantage of uniformity, as a consequence of the introduction of scientific terms, can be attached. This will probably be considered as decisive on the subject of uniformity. With respect to the other advantage supposed to result from the employment of the new nomenclature, the greater probability of the names being permanent, I have it not in my power to bring forwards so direct an argument; but I think we may fairly refer to the numerous alterations that the Edinburgh College made in the two last editions of their pharmacopœia, which were published at only the short interval

(c)* Acidum sulphuricum	Ipecacuanha	Piper nigrum
Ammoniacum	Kino	* Rosa canina
Argentum	* Linum usitatissimum	* — centifolia
Carbo ligni	Manna	* — Gallica
Castoreum	* Mentha piperita	Sagapenum
Cera	Moschus	Staunum
Ferrum	Myrrha	Succinum
Helleborus niger	Opium	Sulphur sublimatum
Hydrargyrus	Piper longum	Zincum

of a year and a half.(d) Of these changes, I believe there is not one which can properly be attributed to any scientific discovery, they were all owing either to some error in the first designation of the substances, or to the adoption of some new system of nomenclature; for, inconsistent as it may appear, you will recollect, that I pointed out a number of instances, where, notwithstanding the considerable change that had taken place, the exact scientific terms were intentionally not employed. In the examination which I now purpose to make, I shall particularly bear these two points in view; and if we find that the name adopted is, either by mistake or design, not strictly conformable to the scientific language, we may very confidently predict, that the nomenclature of the London will be as little permanent as that of the Edinburgh pharmacopœia.

It sometimes happens, that the admissions of an adversary afford the most powerful arguments against his own cause; and in the present instance, the following observations of Dr. Powell might be brought forwards as most conclusive against the opinion which he has adopted: “ As by
“ names substances are distinguished from each

(d) Remarks on Pharmaceutical Nomenclature, p. 13.

“ other, their essential properties ought to be, bre-
 “ vity and dissimilarity; and if those employed be
 “ accurately defined and generally understood; if
 “ they be sanctioned by use, be so distinct as not
 “ to be liable to mistakes; and above all, convey
 “ no false ideas of the substance they are intended
 “ to designate, such a nomenclature may be consi-
 “ dered as perfect. The principle, too, of explain-
 “ ing the composition of a substance by affixing to
 “ it a name formed of those of its component parts,
 “ is too limited in its application; it may suffice
 “ for compounds of a few constituent parts only,
 “ but must be dropped in those numerous complex
 “ combinations which are daily presented to us by
 “ nature and art; and, on this account, mineralogy,
 “ which is but a branch of chemistry, has found
 “ the necessity of using arbitrary terms to designate
 “ its particular subjects. Of all these inconveni-
 “ ences, the College have felt the full force; but
 “ they have finally judged it proper, for the sake of
 “ uniformity and consistency, in adopting the pro-
 “ ducts of chemistry, to adopt also its language,”
 —A more full confession could scarcely have
 been made, and scarcely could a more futile reason
 have been urged. It seems, indeed, a most extra-
 ordinary perversion of the judgment, that, for the
 fanciful gratification of their taste for “ uniformity

and consistency,"(e) the College should rush into a system, which, they were aware, was exposed to such serious inconveniences. Dr. Powell proceeds, " There are still, however, many names, " which, chemically speaking, will not be found to " be correct; as in instances where the substances " have been too complex to be expressed without a " periphrasis, which would render them but ill suited to the purposes of prescription, or where the " established name neither contradicted the received doctrines of chemistry, nor was liable to mislead in its application." Thus then the question stands; a serious evil is designedly incurred, for the purpose of preserving " uniformity and consistency;" yet these are, in their turn, to be disregarded, in consequence of the inconvenience which would ensue from maintaining them. I cannot but think that the Society will agree with me in opinion, that the College have been particularly unfortunate, both in the system upon which they have acted, and in the defence of it which they have held out.

I shall now proceed to comment upon the nomenclature of the individual articles of the

(e) The term " consistency," is probably to be regarded as a translation of " concinnitas," which is employed in the original preface, but I conceive that the quality expressed by the latin word is not entitled to so dignified an appellation.

materia medica. As on the former occasion, I shall very seldom rest the objections that I may urge, on any opinions peculiar to myself, but I shall endeavour to substantiate them by a reference to the works of those chemists and naturalists whose authority is universally recognized. The first article in the list of the materia medica is *Abietis resina*, by which it appears the *Thus* of the former pharmacopœia is intended to be designated. (f) Against the new term, no less than three objections may be fairly urged; in the first place, the word now employed means any resinous substance obtained from the spruce fir, and is therefore not sufficiently descriptive; in the second place, it is too exclusive, because, it is probable, that *Thus* is procured from other species of firs besides the spruce, and lastly, the specific name of the tree only is employed, which, although in conformity to the system adopted by the College, is in direct opposition to scientific rules. Here then an old title is rejected, which, in every respect, accorded with Dr. Powell's description of a perfect appellation; it was short and distinct, accurately defined and generally understood, sanctioned by use, and conveying no false idea of the nature of the substance; in its stead is substituted

(f) Duncan's Dispensatory, 5th.ed. p. 339.

a name which is indeterminate, inaccurate, and only imperfectly scientific. With respect to the practice, which the College have adopted, of employing, in some cases, the specific term only, it is sufficient to remark, that this is not the correct name for the substance in question, that, in every instance, it must depend upon an arbitrary determination whether the specific or generic term be the one retained, or whether both may not be thought necessary, and that this arbitrary procedure must be objected to as unscientific, as directly opposed to the favourite principles of "uniformity and consistency," and as not adapted to render the nomenclature either permanent or uniform. No less than fifty-two articles of the materia medica, i. e. nearly one-fourth of the whole, are named in this imperfect manner.(g)

(g) Abietis resina	Cardamomi semina
Absinthium	Caricæ fructus
Acetosæ folia	Carui semina
Acetosella	Cascarillæ cortex
Arnisi semina	Catechu extractum
Armoraciæ radix	Centaurii cacumina
Assafœtidæ gummi-resina	Cinnamomi cortex
Aurantii baccæ	————— oleum
———— cortex	Colocynthis pulpa
Belladonnæ folia	Contrajervæ radix
Bistortæ radix	Cydoniæ semina
Cajuputi oleum	Dulcamaræ caulis
Calami radix	Elaterii poma

The second article of the list, Absinthium, is also liable to the objection of being denominated by its specific name alone. There is likewise an inaccuracy in stating that the whole of the plant is employed in medicine; this cannot be strictly affirmed of more than two plants in the whole materia medica, the fucus and the lichen, although there are ten others in which it is said to be the case. (h) Acaciæ gummi. To this, which is adopted as the new appellation for Gum Arabic, objections of a still more decided nature may be urged. Although there is no substance which is better known than gum Arabic, yet its origin remained for a long time obscure. In the last

Filicis radix	Sabinæ folia
Fœniculi semina	Sarsaparillæ radix
Galbani gummi-resina	Sassafras lignum et radix
Granati cortex	Scammonææ gummi-resina
Jalappæ radix	Senegæ radix
Ipecacuanhæ radix	Sennæ folia
Mezerii cortex	Serpentariæ radix
Opoponax	Simaroubæ cortex
Pimentæ baccæ	Staphisagriæ semina
Porri radix	Tabaci folia
Pulegium	Taraxici radix
Pyrethri radix	Toxicodendri folia
Rhœados petala	Uvæ ursi folia

(h) Absinthium	Mentha viridis	Origanum
Acetosella	——— piperita	Pulegium
Malva	Menyanthes	Tussilago
Marrubium		

edition of the Edinburgh pharmacopœia, it was announced to be the product of the *mimosa Nilotica*, and was named accordingly; but we are now presented with a new denomination, on the respectable authority of Willdenow, who styles it *Acacia vera*, we are not informed whether merely from a new arrangement of the plants formerly known, or from the discovery of a new one. The effect upon pharmaceutical nomenclature is, however, the same, the liability to perpetual change and uncertainty, and the consequent probability of mistake. The present name is also objectionable, as being too exclusive; for, we have reason to believe, that gum Arabic is the produce of more than one species of plant; (i) and, even were we certain that this was not the case, that the plant whence it is derived was decidedly ascertained, and that no future botanical discovery could induce us to alter its name, still the London College have fallen into the gross, and even dangerous error, of using the generic term alone. This practice is not only open to the hypothetical objections which attach to the employment of the specific name, but it is to be deprecated, as affording no certain indication of the substance in question. According to the scientific language

(i) Duncan, p. 13.; Thomson's Chem. v. 36.

of botany, the generic term is equally applicable to a number of individual species, which, although they may agree in many respects, at the same time possess various essential differences; and, by employing the generic term only, we are totally unable to determine what individual species is referred to. In the present instance the genus *acacia*, as constituted by Willdenow, contains no less than 102 species, to each of which the generic term equally applies; so that, were we not previously informed, by some other means, what was the article referred to, there is nothing in the name which could enable us to ascertain which of these 102 plants was the one in question. The nomenclature in this case is even more arbitrary than in the former, and indeed, may be considered, not merely as imperfect, but as absolutely incorrect; because it is saying, that the name, which in botanical language belongs to more than a hundred plants, shall, in pharmaceutical language, be restricted to one; thus making them contradictory, and, to a certain extent, incompatible with each other. (j) Vinegar still retains its old name,

(j) To the following sixty-nine articles of the *materia medica*, i. e. nearly one-third of the whole, the generic name only is assigned:

Acaciæ gummi

Aconiti folia

Allii radix

Althææ folia et radix

Anethi semina

Anthemidis flores

Acetum, a name which, although unscientific, we cannot object to, especially when we observe that the College have described it as being

Asari folia	Marrubium
Avenæ semina	Menyanthes
Canellæ cortex	Mori baccæ
Capsici baccæ	Myristicæ nuclei
Cardamines flores	Origanum
Cassiae pulpa	Papaveris capsulæ
Cocci	Pterocarpi lignum
Colchici radix	Quassiae lignum
Conii folia	Quercus cortex
Coriandri semina	Rhamni baccæ
Croci stigmata	Rhei radix
Cumini semina	Ricini oleum et semina
Cuspariæ cortex	Rosmarini cacumina
Dauci radix	Rubiæ radix
——— semina	Rutæ folia
Digitalis folia	Salicis cortex
Dolichi pubes	Sambuci flores
Euphorbiæ gummi-resina	Scillæ radix
Fucus	Sinapis semina
Gentianæ radix	Spartii cacumina
Glycyrrhizæ radix	Spigeliæ radix
Guaiaci resina et lignum	Spongia
Hæmatoxyli lignum	Styracis balsamum
Hordei semina	Tamarindi pulpa
Humuli strobili	Tormentillæ radix
Hyosciami folia et semina	Tussilago
Juniperi baccæ et cacumina	Valerianæ radix
Lavandulæ flores	Veratri radix
Lauri baccæ et folia	Violæ flores
Lichen	Ulmi cortex
Lytta	Zingiberis radix
Malva	

“*acidum aceticum impurum*,” a denomination which is decidedly improper. In the first place, vinegar, when distilled for pharmaceutical purposes, is freed from every thing which can properly be considered as impurity. And farther, although it has been ascertained, that the proper acetic acid, in all its forms, contains the same proportion of oxygene, and consequently that there is no foundation for the supposed distinction between the acetic and acetous acids, depending upon their different degrees of oxygenation, (g) yet it is equally certain, that the sensible properties of common vinegar are essentially different from those of this fluid in its more pure and concentrated form of radical vinegar, and that we should find it impossible, either for pharmaceutical or culinary purposes, to substitute the one for the other. This instance affords us a very striking example of the difficulty of approximating popular and scientific language; for, intimately acquainted as we are with the nature and properties of vinegar, it is impossible, without a very long periphrasis, to express its composition according to the principles of the modern nomenclature. The general term *adeps* is now adopted to signify hog’s lard, without the addition of *suilla*,

(g) See the experiments of Adet, Darracq, and Proust, in *Ann. Chem.* xxvii. 318, and xlj. 281, and *Journal de Physique*, lvj. 211.

which was formerly appended to it; an omission which cannot be justified either by reason or custom. Adeps, both in its classical(*h*) and in its modern acceptation, has either been taken for fat generally, or at least for the fat of a peculiar class of animals, and I am not aware of any authority by which it can be restricted to that of the hog. The term *Ærugo* is one which is still retained, and without referring to the situation in which it is found, we may think it necessary and proper that it should be so, for the explanation which the College have given of its composition, under the title of *Subacetas cupri impura*(*i*) is both indefinite and inaccurate. But although, in this instance, we may commend the prudent caution of the College, still we must remark upon the awkward mixture which is thus introduced into pharmaceutical language, where, after all the puzzling changes that have been made, it appears that no fixed principles can be established, and where, after so much has been sacrificed to system, still the reform is confessedly left in an imperfect state,

(*h*) Plinii historia, xj. 37.

(*i*) The word *subcarbonas*, and other substantives of similar termination, are always made of the feminine gender in the London Pharmacopœia; whereas the Edinburgh College, and the original framers of the new nomenclature, uniformly consider them as masculine; the London College is certainly correct, if we are to be guided by the standard of classical authority.

and so far from possessing the boasted stability, evidently contains within itself the seeds of perpetual revolution.

The difficulty and danger of attempting to assimilate popular and scientific terms, may be aptly illustrated by what has taken place with respect to the well known drugs, the Socotorine and the Barbadoes Aloes. Upon authority which appeared highly respectable, the Edinburgh College, in their last edition, discarded these specific names, and substituted for them the single one, *perfoliata*. But we now find that this must give way to still later innovations, and on the faith of an unpublished work, the College have ventured to denominate the two species, *spicata* and *vulgaris*; so that, as the matter now stands, the London, Edinburgh, and Dublin Colleges have all given different appellations to the same substance! *Ammoniæ murias*. The deviation from the accustomed manner of writing the names of the salts, although of comparatively trifling consequence, must not be entirely passed over. The great objects of "uniformity and consistency" are best promoted by never deviating from a standard authority; but the framers of the new nomenclature have seemed rather to seek for opportunities of differing from their contemporaries. The old name for Gum ammo-

niac is still retained, although, according to Wíldenow, the plant from which it is produced is now ascertained. It would be difficult to explain upon what plea of consistency this discovery is rejected, while those respecting the aloes, the cinchonæ, the cusparia, &c. are admitted. This is one of that class of substances which have obtained the name of gum-resins, of which there are ten in the materia medica; (*m*) and it might have been expected, in the formation of a new nomenclature, that they would have received names expressive both of their nature and origin. This, however, is, in no instance, done with correctness; their property, as gum-resins, is sometimes expressed and sometimes omitted, without any obvious cause for such irregularity, as in the two instances galbanum and opoponax; in one case, that of gamboge, a new and arbitrary word seems to have been invented, and when the plant is mentioned, sometimes the generic and sometimes the specific name is the one employed, as in euphorbiæ gummi-resina, and galbani gummi-resina.

(<i>m</i>) Ammoniacum	Myrrha
Assafœtidæ gummi-resina	Olibanum
Cambogia	Opoponax
Euphorbiæ gummi-resina	Sagapenum
Galbani gummi-resina	Scammoneæ gummi-resina

The nomenclature of the Almond affords an instance of the difficulty of adapting scientific terms to popular use. The bitter and sweet fruit, although possessed of such very different properties, form but one botanical species, nor are there any scientific characters by which the plants bearing the two kinds can be distinguished from each other. The varieties *amara* and *dulcis*, adopted by the College, are not recognized either by Gmelin or Willdenow.⁽ⁿ⁾ I think an objection may be fairly urged against the method in which the College have restricted the use of the word *Amylum* to a substance procured from wheat alone; I consider it merely as a translation of starch, a term applied to one of the vegetable constituents, which is found in many plants besides wheat,^(o) and of which different varieties are in common use as articles of nutrition; so that in this instance the new language of the pharmacopœia is in opposition to that of the chemist. The name *Anthemidis flores* lies open to the objections which I before urged against the exclusive adoption of a generic term; the College have particularly re-

(n) Gmelin has seven species of *amygdalæ*, of which *dulcis* is one, but he has no *amara*. Willdenow has a variety *amara*, but no species or variety which he calls *dulcis*.

(o) Thomson's Chem. v. 63.; Murray's Chem. iv. 130; Aikin's Dictionary, art. *Fecula*.

ferred to this article in their preface, and apologize for the introduction of what, they acknowledge, must seem an uncouth phrase, because they have thought it necessary, as a general principle, to adhere to scientific language. But, most unfortunately, they have fallen upon a line of conduct which lies open to every objection without gaining the end in view. Chamomile was a name known, not only to every medical, but to every unmedical person in the British Empire, while in its stead is substituted the word *anthemis*, a generic term applicable to more than twenty different plants. Dr. Powell has indeed made us acquainted with the probable intention of the College by translating *anthemidis flores*, common chamomile flowers, but all the members of the society must be well aware that the words admit of no such interpretation. *Arsenici oxydum*. The mode of spelling the latter of those words might be objected to, as being neither the most usual method, nor as that which appears the most agreeable to analogy.^(p) But a more important objection to the

(p) The method of spelling this word has been a good deal controverted; with respect, however, to the question of authority, which, on such a subject, ought to be decisive, we shall find it to be very much in favour of *oxide*. It was thus spelled by the original framers of the nomenclature, and by almost all the French writers, Lavoisier, Berthollet, Guyton, Monge, Vauquelin, Fourcroy, Hassenfratz, and Chaptall; and, in our own country, we have Davy, Wollaston, Hatchett, Tennant,

use of this term arises from its not being sufficiently definite; it should either have been called the arsenous acid, in conformity with the opinion of M. Fourcroy,^(g) or it should have been more exactly designated by the title of the white oxide of arsenic. The terms *Aurantii baccæ* and *Aurantii cortex*, are both used in an arbitrary manner, and restricted in a way which the meaning of the words by no means justifies. The former of them, which equally applies to any kind of orange, being confined to one variety, the Seville; and the latter, which, as it now stands, would signify the bark of the tree, being explained by the College to mean the rind of the fruit. *Balsamum Peruvianum* and *Balsamum Tolutanum* are neither of them correct terms; the proper appellations are *Balsamum myroxyli peruiferi*, and *Balsamum toluiferæ balsami*; their length may

Priestley, Howard, Chenevix, Henry, Aikin, Nicholson, Thomson, Murray, Marcet, Pearson, Duncan, and the formers of the Edinburgh pharmacopœia, among those who adopt this method. It argues in the College a remarkable share of confidence in their own opinion, and a no less remarkable indifference to that of others, to venture to oppose their feeble influence to the united weight of the most distinguished chemists of France and England.

It is worthy of observation, that the translator of Lavoisier's Elements has spelled the word *oxyd*, although in the original it is *oxide*, and this he has done without giving any intimation of the change.

(g) Systeme, v. 76.

indeed be considered inconvenient, but this is an objection, not to these individual names, but to the general system of the nomenclature. The same remarks will apply to Benzoinum, a name which is neither classical nor scientific; it ought to be *Balsamum styracis benzoini*. Besides these there are two other articles of the materia medica, *Copaiva* and *Styrax*, which are properly balsams, and which, as well as the three above mentioned, should have been named in a uniform manner. But notwithstanding the boasted consistency of the College, this is not the case, and, what renders it still more extraordinary, three of the names have received alterations. We have now five balsamic substances, the titles of which do not correspond with each other, and not one of which is scientifically correct. *Cajuputi Oleum* is a very defective appellation. Admitting that we are certain from what plant this oil is procured, and that it is the produce of one plant alone, admitting also that this plant is correctly named, all which points may perhaps be questioned, the proper appellation would be *Oleum essentielle melaleucæ cajuputi*.

Lapis calaminaris is a substance so compounded, and so uncertain in its composition, that the College probably thought it impossible to give it

the proper chemical appellation; but their fondness for novelty has unhappily induced them to reject the old name, and to substitute the word Calamina, which possesses neither popular, classical, nor scientific authority. The explanation or synonyme of it which is given, Carbonas zinci impura, is certainly incorrect. Colomba, we are informed, is the root of a plant "adhuc anonyma," by which is probably meant, not yet discovered. Under these circumstances one should have expected, that it might have retained its old title undisturbed; but from some cause, which it seems impossible to divine, the College have chosen to alter it to Calumba. For an equally inexplicable reason, Gamboge is metamorphosed into Cambogia, which produces the serious inconvenience of changing its place in the alphabet. The new name is totally unscientific, nor indeed would it be easy to fix upon one that should be botanically correct; it is doubtful whether the whole of what we receive as gamboge is the produce of one plant, and it is also not exactly ascertained to which of the vegetable principles it is the most nearly allied; it has generally been classed under the vague designation of a gum-resin. It will not be carrying our criticism to an unreasonable extent, to object to the word Camphor, as not being sufficient to designate the peculiar substance

derived from the *Laurus camphora*. Camphor appears to be one of the constituents of vegetables, which, like starch, sugar, gum, &c. is procurable from a number of different plants. (r) *Capsici baccæ*. Besides the objections against this name, of containing the generic term only, it is incorrect in styling the part of the plant which is used, *bacca*; it is not the *berry*, but the *capsule* that is employed in medicine. *Cardamomi semina*. It is curious to observe the different changes that this well known article of the *materia medica* has experienced. The Edinburgh College, on the authority of a learned naturalist, gave it the name of *Amomum repens*, while the Dublin, proceeding upon equally good authority, have stated it to be derived from the *Amomum cardamomum*. More lately, a new account of the plant has been published, which has been thought more correct, and has led to an entirely new appellation, *Elettaria cardamomum*. The London College have thought fit to deviate from the scientific name, and to call it simply *cardamum seeds*. With respect to the next article, *Caricæ fructus*, it may be remarked, that the term which is adopted is not correctly scientific, and that if the scientific language was not to be employed,

(r) Thomson, v. 136; Murray, iv. 224; Aikin, art. Camphor.

the popular and classical word *Ficus*, would have been better than the present name.^(s) *Caryophylli*, as used to express the flower buds of the *Eugenia caryophyllata*, is evidently imperfect, and to the term *Cassiæ pulpa* we have not only the general objection to *uge*, but likewise the particular one, that the word *Cassia* enters into the title of two other officinal plants, the *Cassia senna* and the *Laurus cassia*, so that, in the present case, it would be quite impossible, from the name alone, to know whence the substance was derived.

Cetaceum is the term now employed for *spermaceti*; it is, however, neither scientific nor classical, nor does it in any way express either the origin or properties of the substance in question; it would appear therefore to have been adopted, as we have observed in some other instances, for the mere purpose of change. The frequent alte-

(s) Some critical writers have supposed that *Carica* is the classical term for a dried fig, were this the case, the word *fructus* would be an improper appendage to it. Upon examining, however, the three passages that are referred to in support of this opinion, *Ovid. Metam. viii. 674*, *Ovid. Fast. 5. 185*; and *Stat. Sylv. iv. 9. 26*, it does not appear to me that any of them authorize this interpretation. *Carica* is twice mentioned by *Pliny*; in the first instance, *xiii. 5*, it clearly means a particular species of fig, and in the second, *xv. 19*, the connexion seems to show that the recent, rather than the dried fruit is spoken of: "*Cum recenti fico salitis vice casei vesci, nuper excogitatum est. Ex hoc genere sunt, ut diximus, cottana et carica, &c.*"

ration which the names of the three kinds of cinchona have experienced, deserves to be particularly noticed. They are now called cordifolia, lancifolia, and oblongifolia, titles taken from the shape of the leaf, and which may be correct and appropriate, but to us, who never saw the plants, must seem arbitrary, and are a mere exercise of the memory, while the old ones could scarcely be either mistaken or forgotten. Nor does it appear that the present names are by any means universally received, even among botanists, nor, so far as authority is concerned, are they those which are the most likely to be generally adopted. With respect to the word Cornua I may remark, as on some former occasions, that the restriction adopted by the College is perfectly unauthorized and arbitrary; upon what authority Dr. Powell has translated Cornua, *Stag's horns*, it would probably be difficult to discover. The same objection applies to Ovum, Sevum, and Testæ, which are general terms, and would never have been suspected, except from Dr. Powell's translation, to be restricted to the produce of particular animals. Creta, the former name for chalk, is still retained; it has the merit of being both a classical and a popular term; but we are entitled to inquire, why the same system which induced the College to adopt so many dubious and uncouth names,

should not lead them to give this substance its proper appellation, Carbonate of lime. Cupri sulphas. This is an example, by no means singular, of a chemical substance, the physical properties of which are well known, but where there is some doubt respecting its chemical composition. Probably blue vitriol ought to be regarded as essentially a super-sulphate of copper, it certainly, for the most part, contains an excess of acid. (t) Under the new denomination of *Cuspariæ cortex* is concealed the well-known article of the materia medica, *Angustura*, a title which appeared to answer every purpose of utility, but which has been sacrificed to one, introduced on the authority of an unpublished work, and in opposition to Wildenow, who had previously called it *Bonplandia*, (u) a name which will doubtless be applied to it by many botanists, while in pharmacy it will probably retain its old title. The two articles *Dauci radix* and *Dauci semina*, furnish an instance of the insufficiency of a scientific nomenclature for economical purposes. The carrot is a native of our island, but by cultivation it becomes modified, and both the seeds and the roots acquire new properties, which render them

(t) Proust, *Ann. Chim.* xxxii. 33. Thomson, *iii.* 189.

(u) Duncan, 172.

unfit to be substituted for each other; so that it is the seeds of the wild, and the root of the garden carrot alone, which will answer the purposes of the prescriber. I must not omit to mention, that *Daucus* is a generic term, including six species, and that it is only to one of these, *Carota*, that the plant in the pharmacopœia is intended to be referred.

The term *Elemi*, which is used for the resin of the *Amyris elemifera*, would in itself be admissible, as conveying a clear idea of the substance, were it not in opposition to the general principles upon which a scientific nomenclature ought to be constructed. The same observation will apply to *Farina* as was formerly made to *Amylum*; *farina* is a generic term, signifying a particular constituent of vegetables, and not, as the College seems to suppose, the product of wheat alone; and in like manner *Saccharum*, which is the name of a class of vegetable products, is improperly restricted to the sugar prepared from the *Arundo saccharifera*. The title *Granati cortex* is doubly defective, first, as containing only the specific name of the plant; and, secondly, as not marking out the part employed; according to its present form, it would be taken, not for the rind of the fruit, but for the bark of the tree. I must not omit to notice the

confusion which exists with respect to the name of Ipecacuanha; the plant has been accurately described, and was referred to the genus of callicolla, but this having been superseded by Wilde-now, and removed into that of cephaelis, (v) it is probable that it will frequently go by this name, although the London College choose to retain that of callicolla. It is surprising that Kino should still be denominated a gum-resin, when it is so clearly proved to consist principally of tan; (w) and we may express equal surprise at the unscientific term Lapis calcareus, which the College have introduced into the pharmacopœia; surely if a new denomination was to be employed, the correct one should have been preferred. I am induced to call the attention of the Society to the word Lytta, which is the name now given to the Spanish fly, in order to offer another illustration of the little probability there is, that the nomenclature of pharmacy will become more permanent, by the employment of scientific terms. It is only a short time since the Edinburgh College discarded the popular and unobjectionable title Cantharis, and adopted that of Meloe vesicatorius; this, however, from the change of system, or from new

(v) Sp. Plant. T. 1. p. 977.

(w) Duncan, p. 293; Thomson, v. 103; Murray, iv, 283,

discoveries in natural history, is destined to give way to the still more novel appellation of *Lytta vesicatoria*, of which, although there are twenty-nine species, the generic term only is retained; so that, after two revolutions, we have at length got a name which is imperfect and indeterminate.

Although the changes that have been made, are so numerous as to show that the reformers of the pharmacopœia were not influenced by any respect for the prejudices or convenience of prescribers, yet there are still some vegetable substances in which the old names are retained. One of these is Manna, which is correctly *Succus concretus fraxini orni*; in the same predicament is Mastiche, *Resina pistaciæ lentisci*; Olibanum, *Gummi-resina juniperi Lyciæ*, and a few others. I mention these inconsistencies, not from any wish that the present names should be rejected, but to show the difficulty which the College have had to encounter in pursuit of their object, for which they have made so many sacrifices, and which they have at length been unable to attain. The terms *Pix arida* and *Pix liquida*, the former of which is, for the first time, introduced into the pharmacopœia, do not possess any peculiar merit of discrimination or distinctness, which can compensate for their want of scientific accuracy.

It would probably puzzle the naturalist, no less than the dealer in drugs, to determine what were the two substances intended to be designated by these titles, were we furnished with no clue but that derived from the names. The same remarks that were made above with respect to Verdigris, apply to White lead and to Litharge; familiar as their nature and properties are, it is not easy to ascertain their composition. Of the terms employed by the College, the first is confessedly inaccurate, as they themselves inform us, that what they call a carbonate is a subcarbonate, and there is reason to suppose that the second is not more correct.^(x) Potassa impura. The word impura is, I conceive, an improper adjunct, because the name is not meant to be applied to every mixture of pot-ash with an extraneous substance, but to that specific article of commerce called pearl ashes, and although pearl ashes are impure pot-ash, yet every mixture of pot-ash is not pearl ashes. Whether it is by mistake or design that the substance is called pot-ash, instead of the subcarbonate of pot-ash, the wavering system of the College does not enable us to determine. Precisely the same remarks apply to the Soda impura. Pruna is a classical word as applied

(x) Thomson, I. 266; Murray, III. 347.

to the genus of plumbs, (y) but I know no authority by which it can be applied to the fruit of a particular species, and still less to that fruit in a dried state. *Resina flava* is generally objectionable as not being the specific appellation of the substance in question, and more especially so, because the word *resin* is now employed in chemistry as a generic term, for a particular class of vegetable products. The two kinds of soap might with more propriety have been called *Sapo sodæ*, and *Sapo potassæ*. The change of the old word *Borax* to *Boras sodæ*, is highly censurable, as not only being an incorrect expression, which seems to have been designedly adopted, but as properly belonging to a different substance. (z) The change that has been made must almost necessarily lead to a mistake, for when a popular name is discarded in favour of a scientific one, we are naturally induced to conclude that the new one is accurate. We shall probably find it difficult to determine for what reason the old term *Spiritus* is retained, in opposition to the correct and scientific word *Alcohol*; *Spiritus* is particularly improper in this connexion, because it is employed to designate a whole class of pharmaceutical preparations. *Terebinthina*, although not strictly

(y) Pliny, xv. 18.

(z) Thomson, II. 561.

scientific, yet is so convenient an expression for a particular set of vegetable preparations, that we may be inclined to pardon its introduction; but in a pharmacopœia, constructed as the London professes to be, the name of the tree from which each species is procured should have formed a part of the title. Tragacanth, besides the general objection of its not being a scientific term, is now rendered still more improper, because it no longer enters into the name of the plant from which it is procured; we are informed that this gum is derived, not from the *Astragalus tragacantha*, but from a different plant, the *Astragalus vera*.

I have now gone through all the observations that I purpose to offer on the individual articles of the materia medica; I shall remark with respect to the whole, that out of the 223 substances which it contains, there are but twenty-seven against which some objection may not be urged, and of these the greatest part are names in common use, such as *argentum*, *cera*, *mel*, *moschus*, &c. (*aa*) With respect to the rest, although I

(<i>aa</i>) <i>Acidum sulphuricum</i>	<i>Cerevisiæ fermentum</i>
<i>Argentum</i>	<i>Hydrargyrus</i>
<i>Carbo ligni</i>	<i>Ferrum</i>
<i>Cera</i>	<i>Hellebori fœtidi folia</i>

I conceive the result will be, that in Scotland, in consequence of the concentration of medical knowledge that takes place in the Universities of Edinburgh and Glasgow, and the influence which they possess through the whole of that country, the new nomenclature will be frequently employed, at least among the younger practitioners. Whereas, in England, where the London College has so little authority, over either the actions or the opinions of the great body of the profession, their publication will be little attended to, and will produce little change in the language of the great bulk of medical prescriptions.

FINIS.

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Johnnie McArthur





