For The Royal College of Physicians of London

From The Author.

November 1826
AN

ORATION,

DELIVERED BEFORE THE

Medico-Botanical Society of London,

AT THE

COMMENCEMENT OF THEIR SIXTH SESSION,

FRIDAY 14th OCTOBER, 1825;

BY

JOHN FROST, F. S. A. F. L. S.

MEMBER OF THE ROYAL INSTITUTION OF GREAT BRITAIN, AND DIRECTOR OF THE
MEDICO-BOTANICAL SOCIETY.

Medicus, notitiâ plantæ destitutus, de viribus ejusdem nunquam justè judicavit.

LINN. MAT. MED.

JAMES WILSON, No. 6, GEORGE-COURT, PICCADILLY,

PRINTER TO THE SOCIETY.

1825.
TO

ROBERT BREE, M. D. F. R. S., PRESIDENT,

THE VICE-PRESIDENTS,

AND

HONORARY, AND OTHER MEMBERS

OF THE

MEDICO-BOTANICAL SOCIETY OF LONDON,

THIS

ORATION

Is most respectfully inscribed,

by their obedient Servant,

THE AUTHOR.
A TREATISE ON

THE

LAW OF

INTELLECTUAL

PROPERTY

BY

FRED.R.

AMSTEL, 1894
PREFACE.

The following pages have been committed to the press in compliance with the request contained in the subjoined letter:

"Apartments of the Society,
"32, Sackville-street, Piccadilly,
"14th November, 1825.

"SIR,

"I have the honour to inform you, that at a Meeting of the Medico-Botanical Society, holden on the 11th instant, it was moved by Theodorus Gordon, M. D., seconded by M. C. Friend, Esq. F. R. S., and resolved, that you be requested to furnish the Society with a Copy of the Oration (which you delivered on the 14th October last) for publication.

"I have the honour to be,

"SIR,

"Your obedient Servant,

"R. MORRIS, Secretary.

"To John Frost, Esq."
ORATION.

GENTLEMEN,

The important office which you have been pleased to confer on me, makes it incumbent, at the commencement of the session, to deliver a Lecture the subject of which should be to set forth the importance of the objects of your Society: this I will endeavour to do in the best manner that my limited knowledge will permit; at the same time requesting your indulgence for any errors that may creep in.

We live in an age in which Societies for various purposes are continually forming for the promotion and encouragement of some particular branch of science or literature. We have long had Societies for the advancement of Botany, Horticulture, Chemistry, Geology, &c.; but till within these five years we have had no Institution for the sole purpose of promoting the knowledge of Medical Botany and Materia Medica; a subject so full of importance, that it must strike any person with astonishment to
find, that England, whilst her continental neighbours have been pursuing this subject, has been dormant. We may safely say, that there is no part of Medicine less cultivated at the present moment than this. How few there are that attend to the nature and properties of such plants as are likely to afford articles of medicine, and many think that Botany is a science that does not appertain to it.

If we are to estimate the value of any science by its utility, how can we demonstrate that of Botany, except by proving its application to the amelioration of disease; and what can be more important than the possession of the means of so doing? Mineral Medicines are almost one of the opprobria medicorum, from the ill consequences resulting from their too frequent use. Besides they are not so manageable as vegetables; they are liable to chemical changes in the stomach; and consequently we are less able to judge of the properties: and we often see cases in which the too constant use of minerals has impaired the constitution.

Although I am advocating the use of Vegetable Medicines, I do not wish it to be supposed that mineral ones are entirely to be rejected; for there are cases in which their employment is actually necessary; and then it is pleasant to recollect, that by means of vegetable decoctions and infusions we are able to modify their action. If we refer to ancient authors, either Greek, Arabian, or Roman, we shall find that vegetables were their theme. It would
be absurd to say, that one class of remedies were individually more efficacious than the other; on the contrary, by combining them we shall arrive at a more desirable conclusion.

We shall find that in many instances the one will correct the bad effects of the other. It is to be lamented that the study of Vegetables does not keep pace with that of Minerals. Examine many of our practitioners, as to their knowledge of Materia Medica, and remark how few have any acquaintance with it.

Suppose for a moment, that a medical man is called to give evidence touching the death of a person, who shall have died in consequence of taking some vegetable infusion. He is asked by the coroner whether he knows what plant it is that has caused death. Before answering the question he endeavours to ascertain it by examining the residuum of such infusion; he then pronounces it to be such a plant. The same question is then put to another person, who declares it is not the plant which the former gentleman has stated it to be. Now perhaps both these men may be wrong; and who is to decide? except it be a person conversant with Botany. A case of this kind occurred some few years ago, in which a woman administered to her sick child what she supposed was an infusion of Coltsfoot, instead of which it afterwards turned out to be that of Foxglove. The woman not knowing the latter circumstance, had given a cupful of the infusion to the B
child, and death of course ensued. A coroner’s inquest was held, and in consequence of the discordant opinions of the medical men examined on the occasion, recourse was had to an herbalist, who set the matter at rest by deciding that the plant which had caused death was Foxglove*. This reflects not a little disgrace on the profession; and if cases of this kind occurred frequently, the necessity of studying Medical Botany would be felt. Ought not then the study of this branch of Medicine to be enforced as much as that of Chemistry or Anatomy?

How many Vegetable Medicines are prescribed on the mere *ipse dixit* of some herb vender? but how much would it not redound to the credit of the medical profession, to find its members competent to judge of the nature, and properties of plants? may we not naturally be surprised that there should be such an apathy to the subject on their part? France is making rapid strides in this branch of medical knowledge.

* Although the difference between Foxglove and Coltsfoot leaves is very great, yet the under surfaces of both possess a degree of whiteness, in which point only they resemble each other. It must not here be inferred that analysis was had recourse to, as that is not practical in the present state of our chemical knowledge. The mode adopted in this case to ascertain the plant, was merely spreading out on bibulous paper, that portion of the herb which remained at the bottom of the vessel in which the infusion was made.
Converse with a French or German student in physic, and you will find him acquainted with the plants indigenous to his country, their characters and properties; and able to apply them to the alleviation of disease. We not unfrequently hear it sounded about, that if a man knows Anatomy and Surgery it is all that is necessary for him; leaving the theory of the practice of Physic and Materia Medica out of the question. Let us only give ear to the dissensions which are continually happening concerning the effects of some medicines. Do not such plainly indicate the doubts in each discordant parties mind concerning them? certainly*—this would not be the case if a knowledge of Materia Medica was more generally cultivated, and great advantages would ensue, by the characters and properties of Plants being more extensively circulated, more certain remedies will be known, and a branch of

* The difference of opinions respecting the effects of the bulb of Colchicum Autumnale prove the above observation. One practitioner has declared, that he has found it produce most violent cathartic effects: another says it is a powerful diuretic: a third that it is an excellent diaphoretic; and another affirms that he has given it in large doses, and even then it does not produce any violent effects: and lastly another pronounces it a very dangerous medicine, and that it ought to be erased from the Pharmacopœia List. May we not say that the cause of such difference of opinion may be referred to the season at which the bulb was collected? In support of this opinion I will only further observe, that plants undergo material changes at different seasons of the year.
science which has most unaccountably and unworthily fallen into disrepute will be found one of great importance and utility. If the medical officers of the army who are stationed in our possessions in different parts of the world were acquainted with the nature of the Plants indigenous to the spot on which they may be placed, they would frequently be able to administer immediate relief instead of having to send some miles for their medicine chest. The Manchineel Tree, for example, which is regarded as a virulent poison, might be found useful in cases of Paralysis. Many instances might be adduced in which a knowledge of the medical properties of Plants and the power of distinguishing noxious from esculent vegetables would be of the first importance.

The fruit of the tree above mentioned (Hippomane Mancinella of Linnaeus) has, from its appearance, tempted many persons to taste it, and on so doing the most excruciating pain has ensued. There can be but little doubt but that the Allwise, and Omnipotent Creator has given to every country plants applicable to the healing of the diseases to which its inhabitants are liable!

It has been demonstrated, that opium can be obtained from poppies cultivated in this country, which is quite as active as that imported from Turkey.

By a more intimate acquaintance with the Medical Botany of our own country we shall be better able to judge of the effects of medicines, which though in daily use, are but little understood.
The mode of drying vegetables demands particular attention, as their virtues are either destroyed or augmented by the process. They should always be preserved in closely stopped bottles, and kept from the action of light; and in a dry place: if our limits permitted many more observations could be made; but surely after what has been said nobody will deny the utility of such an Institution as the Medico-Botanical Society; the object of which is to promote and encourage, by means of Lectures and Experiments, and Communications, the sciences of Materia Medica, Medical Botany, and Pharmaceutic Chemistry. Under the head Materia Medica is included all such substances, whether Animal, Vegetable, or Mineral, which are used as medicines: their natural history and properties. Medical Botany applies to the definition of the characters both generic and specific of such plants as are found to possess medicinal virtues. And the last branch of science Pharmaceutic Chemistry takes within its range the chemical properties of articles employed in Materia Medica to whatever kingdom they belong.

The Society affords an opportunity to every Member of stating his sentiments and opinions concerning any substance used in medicine, and therefore becomes a convenient and ready channel of communication.

To whom are we indebted for our knowledge of the Sulphate of Quinine, for example, (though many others could be enumerated);
is it not to the French Phramaceutic Chemists? certainly:—experience has proved it to be an useful and valuable medicine; but it would have been more desirable that such a medicine should have emanated from us.

The Society are always particularly anxious to ascertain the true nature and properties, and dose, of any new medicine;—together with its effects in such cases as it may have been administered.

Objects so important and extensive can only be carried into effect by the combined efforts of individuals. And here I would take an opportunity of urging on your attention, the necessity of every Member exerting himself to promote these ends, which are so important to medicine, and useful to mankind.

No Society or Institution can ever flourish unless its Members are active—as it is only by means of their activity that they can thrive.

This Society holds out many advantages to the profession; Members of which can communicate their knowledge of any new or other medicine to a General Meeting of the Society; and they hear of all such as are found to vary from the descriptions given of them; and if any doubt arises that can be settled by experiment, recourse is had to it.

There is a wide field open for discovery and improvement in this department of Medical Science—let us only consider for one
moment, what an imperfect knowledge we have of the history of many things enumerated in the list of the Materia Medica e. g. Senna, Kino, Calumba, &c.

I cannot conclude without congratulating the Society on the extensive patronage they have received; which must not only convince them of the utility of their Institution, but also encourage them to exert themselves in promoting the welfare of it.

When it is recollected what a short period has elapsed since its formation, it cannot but be a source of much gratification to the Members to find that their efforts have met with so much approbation; at the same time the attentions of the officers must be duly appreciated.

We are now entering on the sixth session of our meetings; and I must remind you that much has been done since the commencement of the last: several foreigners of distinguished scientific merit have enrolled themselves on your list, and expressed a wish to be useful.

GENTLEMEN,

When we review the importance of the objects of your Institution; the noble and learned list of Honorary and other Members; and the readiness and promptitude with which several Botanists supply the meetings with recent Plants for examination, I cannot but again most heartily congratulate you and assure you that my
feeble services are always at your command, and that I feel a great pleasure in being associated with Gentlemen, who are engaged in the common purpose of investigating a branch of Science, that tends ultimately to prolong the lives and lessen the sufferings of our fellow-creatures.

FINIS.
AN
ORATION,
DELIVERED BEFORE THE
Medico-Botanical Society of London,
AT THE
COMMENCEMENT OF THEIR SEVENTH SESSION,
FRIDAY, 13th OCTOBER, 1826;
BY
JOHN FROST, F.A.S. F.L.S.
MEMBER OF THE ROYAL INSTITUTION OF GREAT BRITAIN, OF THE ROYAL ASIATIC SOCIETY
OF GREAT BRITAIN AND IRELAND, SECRETARY TO THE ROYAL HUMANE SOCIETY,
DIRECTOR OF THE MEDICO-BOTANICAL SOCIETY OF LONDON, AND
HONORARY MEMBER OF THE MEDICAL SOCIETY OF BALTIMORE.

DEDICATED BY PERMISSION TO H. R. H. THE DUKE OF YORK.

Medicus, notitiat plantae destitutus, de viribus ejusdem nunquam justè judicavit.
Linn. Mat. Med.

London:
JAMES WILSON, 6, GEORGE COURT, PICCADILLY,
PRINTER TO THE SOCIETY.

1826.
TO
HIS ROYAL HIGHNESS,
Frederick,
DUKE OF YORK AND ALBANY, K.G. G. C.B.
&c. &c. &c.
COMMANDER IN CHIEF OF HIS MAJESTY'S FORCES.

Sir,

Your Royal Highness having been pleased to permit me to inscribe to you the following observations, delivered before the Medico-Botanical Society of London, on the commencement of the seventh session of their meetings, I am happy in having the opportunity of expressing my grateful sense of such a distinguished mark of Your Royal Highness' condescension to me, and trust, that the labours of the Society may prove their utility to that body, which Your Royal Highness has so ably guided for so many years, by promulgating a knowledge of the best means of ameliorating more
particularly those diseases, to which European soldiers in tropical climates are so much exposed; and the encouragement afforded to the Members of the Medico-Botanical Society by Your Royal Highness' immediate patronage, will contribute mainly to effect such a desirable object.

To Your Royal Highness' gracious consideration, therefore, the following pages are humbly submitted, as aiming to diffuse the leading principles, and point out the general importance of an Institution, of which Your Royal Highness has become the firmest pillar; and that you may long continue so, is the ardent and sincere wish of,

Sir,

Your Royal Highness'

Most dutiful and devoted Servant,

JOHN FROST.

Bridge Street, Blackfriars,
October, 1826.
PREFACE.

The accompanying letter, and a wish to extend the knowledge of the objects of the Medico-Botanical Society, have induced the Author to publish the substance of his Oration, which, he trusts, may be the means of drawing the attention of the public in general, and the profession in particular, to an Institution which is calculated to confer the greatest benefits on mankind.

"Apartments of the Medico-Botanical Society,
"32, Sackville Street, Piccadilly,
"16th October, 1826.

"Sir,

"I have the honour to forward you a copy of a Resolution, which was passed at the Meeting of the Society on Friday last, and to subscribe myself,

"Sir,

"Your obedient Servant,

"R. MORRIS, Secretary.

"To John Frost, Esq."
"At a Meeting of the Medico-Botanical Society of London, "holden on Friday, 13th October, 1826, "Sir James M'Grigor, K. T. S. Director-General of the Army "Medical Board, President, in the Chair, "It was Resolved unanimously, "That the thanks of this Meeting be given to John Frost, "Esq. Director, for his excellent Oration, and that he be requested to "print the same. 

(Signed,) "J. M'GRIGOR, President."
ORATION.

Mr. PRESIDENT and GENTLEMEN,

According to the annual custom of your Society, I have the honour of addressing you on the commencement of the session: you must be aware of the difficulties attendant on such an undertaking, from the degree of sameness that would seem to pervade discourses continually framed on the same subject; and although I cannot lay claim to any pretension of novelty, yet, I trust, the important objects of your Institution will not be deteriorated by adducing former arguments in its favour.

You have passed through six sessions, the three former of which were occupied by demonstrations of the nature and properties of the various substances contained in the lists of the Pharmacopeias, which were illustrated by experiments as to their chemical constituents, and tables of the proportions of their ultimate elements: the three latter have been taken up in the consideration of the Materia Medica of other countries.
The progress of your Society has kept pace with the improvements which have taken place in Pharmaceutic Chemistry and other branches of science, and from its gradual and steady advancement, affords the best proof of the persevering zeal of your Members. It must be particularly gratifying to you to find this state of things at the commencement of your seventh session, which it is to be hoped will not close without laying strong claims on the attention of the profession in general.

The great want of a Society for promulgating a knowledge of the properties of Plants has long been acknowledged, and by painful experience felt. In Paris, Berlin, and Hamburgh, there are Societies for the purpose, the result of whose labours reflect the highest honour on their Members.

Botany is considered by part of the profession as a mere catalogue of names, and the connexion between it and Medicine seems most unaccountably to have escaped the attention of practitioners:—it appears not to be rightly estimated as to its value in forming a part of the education of the student in Medicine; and although it must be conceded, that Anatomy and Surgery are primary points, yet it cannot be denied that Pharmacy, Materia Medica, and Medical Botany, have not comparatively as strong claims; and there is but little doubt, that the time is not very far distant, when the importance and
utility of the branches of science, cultivated by your Society, will be self evident.

It is extremely difficult to account for the neglect into which Medical Botany has fallen; and it would seem, that ignorance alone, of its relative value, can be the cause, for the more the subject is considered and investigated, the greater its advantages will appear.

From the earliest period, Vegetables have been used by man for the alleviation of disease, and through the succeeding ages, Herbs have never lost their repute, till within the last half century.

The examination of the Medicines employed by the natives of any country, shews us that Plants are wholly resorted to; and the surface of our planet is covered with such an infinite variety of vegetable beings, that no person can suppose they are merely for ornament,—no; they combine to administer to the comforts of man, both for his food and medicine, as well as to delight his eye. The brute creation are so far gifted with instinct, that they are enabled to select, at certain seasons, herbs that relieve to a great degree diseased action.

We cannot but be struck with awe and admiration at the wonderful distribution of Vegetables, their economy, variety of form, colour, habit, and effects.—Poisonous and esculent plants grow side by side in the same soil, and yet possess opposite
properties.—White, black, and red flowers spring up together; they all demonstrate the Majesty of the Creator, and display His power. There is no substance in nature, however poisonous, as it is termed, that would produce unpleasant effects, were it not for the want of a proper judgment to apportion its dose. As we advance in the state of knowledge, we shall be convinced, that it has been our paucity of it, that has led us to form such erroneous opinions.

As it is admitted, that the power to ameliorate disease is of the first importance to mankind, so it will be allowed, that the study of those agents, by which it is to be effected, cannot be too much inculcated. What can be more laudable than the objects of the Medico-Botanical Society, whose sole purpose is the investigation of Vegetable Medicines?

It has been argued, that Medical Botany is a mere nominal science, consisting of Greek and Latin words; and that there are more Medicines already enumerated in the Pharmacopoeiae than are properly understood. The first objection might be met by adducing proof of the advantages of botanical nomenclature, as applied to the objects to which it appertains; and one can but imagine, that such vague reasoning arose alone, from the person adopting it not being acquainted with the relation between the name and the plant to which it may be applied. It is true, we have not a nomenclature quite so ex-
pressive perhaps as that of Chemistry, but that is no reason why the science is to be discarded.

The practice of laying before the pupil a catalogue of difficult terms, without explaining their meaning, appears, in my humble opinion, to have prejudiced their minds against the pursuit of it in the first instance; and as first impressions generally act more strongly than after ones, it is easy to account, in some measure, for the disgust manifested towards the study of Botany. By beginning with the alphabet of the science, and going gradually on, without embarrassing the memory by too many things at one time, the student progressively attains a perfect and correct knowledge of the subject; then he begins to feel its importance as a branch of Medicine, for he cannot but see the intimate connexion that subsists between them; he ceases to be at a loss to know the qualities of the greater part of the Plants he meets with; he knows what are edible and what are not. When he has made himself acquainted with the natural affinities of Plants, he is able to estimate their properties, and knows how far credence is to be given to those ascribed to several that are retained in the Pharmacopoeias; besides, he is not confined to the collegiate forms of Physic, but has the power of calling to his assistance Plants probably not before used in Medicine, and thereby contributes to the general stock of pharmaceutic knowledge.
I shall now proceed to offer some observations on the necessity of a knowledge of Botany to the Medical Officers of the Army, but before so doing, it will be gratifying to you to know, that your President, the Director-General of the Army Medical Board, deeply impressed with the value of the science, and anxious, as he always is, to promote whatever tends to the advancement of the profession, has lately resolved, that no person shall be admitted to an examination, to qualify him to practice in the Medical Department of the Army, without having attended, amongst other branches of study, Lectures on Botany for six months: the salutary effects of this excellent regulation will, in a few years, demonstrate its utility. Those who may be stationed on foreign service ought to be conversant with the plants indigenous to the place; they would be able to treat maladies more successfully by employing native medicines, than by having recourse to mineral ones, (except under particular indications); and by collecting the names of the herbs used by the natives, and attaching to them their provincial when their scientific names are not known, they would, in the course of time, form a very complete catalogue of Materia Medica to hand down to successors to their station, which would render benefits to medical science that are not now appreciated. Their botanical knowledge would enable them to arrange these materials systematically, and to
retain such as could be relied on, and reject others: but, as it is, if their stock of European medicines are exhausted, they are quite at a loss to know what to prescribe; and if they use native medicines, they are for the most part obliged to trust to the mere *ipse dixit* of the person from whom they obtain them; besides, as they are not in possession of the botanical characters of the plant, or the tribe to which it belongs, they cannot calculate on its effects with precision. This Society forms an admirable opportunity to the Medical Officers of the Army to transmit their communications; they have only to send a specimen of the plant in flower, with its native name, when an answer will be returned to their inquiries. Since I had the honour of addressing you last year, much has been done in ascertaining the nature of the medicines used by the Ashantees; and from the enterprizing spirit of the author of a paper on the subject, there is no doubt much more will be accomplished. A wide field is open to the profession to follow up such a desirable object. We are daily receiving new medicines from Mexico and South America, which demand our particular attention—Medicines possessing most active properties—were I to adduce examples, I should encroach too much on your time; but I will advert to one instance, which is that of a volatile oil, erroneously called (as its name implies its containing Prussic acid, which it does not) "Native Oil of Laurel," which has powerful diuretic
and cathartic effects, according to its dose; it is also used advantageously, externally, as a stimulant and rubefacient. As the flower of the tree which affords it has not been examined, no accurate botanical description has reached us. This is a striking example of the necessity of such an Institution as yours; and so plainly has the incident demonstrated it, that the gentleman in question immediately requested to become a Member of your Society, and has been extremely active in establishing a similar Institution in the colony, under the auspices of his excellency the Governor, who has likewise added his name to your list. It is by the co-operation of corresponding Members, that the interests of Medical science will be advanced; to advance which you so properly hold out honorary rewards of a gold, and also a silver medal, to be given annually to the authors of the best communications on Materia Medica, that have been read before the Society during the preceding year; you thereby encourage the labours of your Members, and stimulate others to devote their time and attention to the subject. The ready channel of communication which you hold out to the members of the profession, needs only to be made known to them to be duly appreciated.

Mr. PRESIDENT and GENTLEMEN,

In conclusion, I cannot but express the peculiar satisfaction which I feel, in having occasion to offer you my congratula-
tions on the increasing prosperity of your Society, and on the unabated zeal manifested by several valuable correspondents in its behalf, and on their steady attachment to its interests; I can only repeat my assurances of the desire I have to be useful, and beg to return you my thanks for the attention which you have been pleased to pay to these remarks. In the hope that you will follow up the objects of the Medico-Botanical Society, I would quote the words of the Roman poet:

“Hoc opus, hoc studium, parvi properemus et ampli;
Si patriæ volumus, si nobis vivere cari.”

FINIS.