An address to the public, on a subject of the utmost importance to health : highly necessary to be read by all those who are, or may be afflicted with a certain disease. To which is subjoined, An essay on the heat of the blood, and the motions of animals and vegetables / By J. Elliot.

4

AN ADDRESS TO THE PUBLIC,

On a Subject of the utmoſt Importance to

HEALTH;

Highly neceſſary to be read by all thoſe who are, or may be afflicted

WITH

A certain DISEASE:

To which is ſubjoined,

AN ESSAY

On the HEAT of the BLOOD,

AND THE MOTIONS OF

ANIMALS AND VEGETABLES,

BY J. ELLIOT, APOTHECARY,

AUTHOR of the *Philoſophical Obſervations, &c.*

LONDON:

Printed for, and Sold by Meſſrs. FIELDING and WALKER, Bookſellers, in Paternoſter-Row; and may be had of the AUTHOR, No. 7, the Eaſt-ſide of Carnaby-Market.

PREFACE.

MY deſign in the following little Eſſay, is not to offer a treatiſe on the diſorder, which is the ſubject of it, but to warn the unwary and inexperienced, from the dangers to which they are liable to be expoſed, from the knavery of empyric's; and, to which I am induced by ſeveral melancholly caſes which have lately fallen under my obſervation. The diſcerning reader will perceive that

an

an attempt of this kind will be more uſeful than even a diſſertation on the diſeaſe itſelf; ſince thoſe who are incapable of judging of the merits of a profeſſional work, may yet be made ſenſible of the dangerous conſequnces of indiſcriminate quackery. I do not pretend even to offer any thing new; for the ſubject has frequently been treated by others, in a more ample manner than I have either done, or deſigned, which probably is the reaſon that their well intended labours have never been generally known. It appeared to me that a very ſhort addreſs, urged in an earneſt manner, ſetting the matter in a ſtrong light,

light, and ſold at an eaſy price, would be the moſt likely to be attended to by the claſs of readers to whom it is addreſſed, and therefore bid faireſt to anſwer the end propoſed. If it has that effect I ſhall think myſelf happy, as I ſhall have been the means of ſaving many from ſome of the greateſt miſeries which the human frame is ſubject to, as well as from untimely death.

J. ELLIOT,

No. 7, *Carnaby-Market*;
March 25, 1780.

AN

ADDRESS

TO THE

PUBLIC.

SECTION 1ſt.

THERE are laws in force ſufficient to prevent perſons not qualified, from vending *quack medicines*; but as thoſe whoſe province it is, do not think proper to ſuppreſs that alarming evil, it becomes the duty of every individual, who wiſhes well to mankind, to check the miſchiefs ariſing from it as much as in his power.

The ill conſequences of this practice, eſpecially in the inſtances alluded to in the title page, are not ſufficiently known. And it is particularly to be lamented, that circumſtances concur to render patients in this line the victims of empyrical knavery and ignorance, beyond any others.

When a perſon is unhappily infected with this diſeaſe, eſpecially for the firſt time, baſhfulneſs, and a falſe ſhame, prevents him from applying to any gentleman of his acquaintance, or even to any other practitioner in form. Being inexperienced in theſe matters, and a ſtranger to the dreadful conſequences of improper treatment in this deſtructive diſeaſe, he flatters himſelf with the deluſive hope, which ſome empyrical hand bill had inſpired, that by taking a bottle or two of ſuch a medicine, he ſhall be cured, without expoſing his weakneſs to any one. He takes the medicine.—His diſorder inſtead of being cured, increaſes; his conſtitution is impaired; his emaciated appearance at length betrays him to his acquaintance, he is obliged to apply to ſome regular practitioner, and the cure, which at firſt might have been effected in a few weeks, cannot now be wrought in as many months, perhaps not perfectly, at all. The conſequences are ſtill more dreadful with

reſpect

reſpect to the other, and more amiable ſex, whoſe modeſty, tho' they may have been ſeduced and injured by the villainous arts of inſiduous lovers, frequently rather ſuffers them to fall ſilent victims to the evil, than expoſe themſelves to the ſtill greater diſtreſs of applying for a cure.

The baits by which the unwary are chiefly taken, are the cures advertiſed to have been performed by the medicines propoſed as infallible remedies in theſe complaints. But we ſhall find on examination, that even in the advertiſements for thoſe medicines which have the greateſt ſale, a new cure does not occur three times in a whole year; and yet a cure ſeldom eſcapes the induſtry of the proprietors, and thoſe agents whoſe buſineſs and intereſt it is, by bribes, or otherwiſe, to obtain an account of them. Theſe cures are publiſhed with every poſſible exaggeration. Moſt of the real ones we find happened under the immediate inſpection and treatment of the proprietors; and in the performance of which a variety of other means beſides the advertiſed remedy were doubtleſs employed. But this is viewing the caſe on the moſt favourable ſide; for it is well known to individuals, tho' unhappily, not to the public at large, that by far the greateſt part of theſe cures never happened; but are

inſerted as mere puffs, the truth or falſhood of which the inventors are morally certain will never be enquired into ; or if they are, the departure of the ſuppoſed patient from his former place of abode, or other ſimilar evaſion, generally ſatisfies the enquirer ; if theſe excuſes fail, there are not wanting abandoned perſons in their pay to paſs for the pretended ſubjects of ſome of theſe fictitious cures, who are properly inſtructed to anſwer the queſtions of the moſt ſcrupulous enquirer.

But ſuppoſing all the cures advertiſed to be real, which yet ſeldom *equals*, much leſs *exceeds* the ſmall number above-mentioned, we are to reflect that in the courſe of a year, the time in which thoſe cures are ſuppoſed to have happened, many thouſands of the medicine had been taken. The caſes in which it does no good we are not informed of; and *ſhame* will, on a double account, prevent the unhappy deluded patients from communicating to the public the numerous inſtances wherein it does harm. We may fairly conclude therefore, that it is at leaſt a *thouſand* to *one* whether the medicine will perform a cure. From the caſes which have happened under my own inſpection, I conclude that it is almoſt as great an odds whether it will not do harm. It is well known

known that if a medicine of any conſiderable efficacy does not do good, it muſt be hurtful.

For this ſingle reaſon therefore one would imagine that no perſon of common ſenſe would riſk the taking a medicine where the chance of receiving benefit is ſo ſmall, and the hazard of injury ſo great; or if through want of reflection, they were deluded into this idea before, yet now that the caſe is fairly ſtated to them they would be inexcuſable if they perſiſted in the fatal deceit, and may blame themſelves, rather than the proprietors of the medicines, for the ill-conſequences that may follow.

SECTION 2d.

Thoſe who have any acquaintance with the art of phyſic know that it is impoſſible for any one medicine to be contrived that ſhall ſuit every conſtitution even in the ſame ſtage of this diſorder,* and none but an illiterate empyric will pretend to it. But in different ſtages, even in the ſame patient, not only a different, but even a

* This may be equally applied to quack remedies for all other complaints.

direct

direct contrary treatment is ſometimes required. The remedies muſt be varied according to the ſymptoms that ariſe.

A medicine, for example, that would be very proper for a relaxation of the parts would greatly aggravate the ſymptoms of an inflammation. Yet in the news papers, and hand bills, medicines are daily offered to the public, which the authors have the ſhameleſs, I ſhould rather ſay *wicked* effrontery to dare to aſſure us are abſolute *ſpecifics* in *every* ſtage of the diſorder, and in every conſtitution. To attempt to reaſon with ſuch men would be vain. For if we could even convince them of their error, (which however ſome of them are probably already conſcious of,) yet that would be of no avail, as not the *health* but the *money* of the credulous purchaſers of their noſtrums is their object. If therefore we acquit them of ignorance, we muſt convict them of what is much worſe, *direct and pre-meditated villainy*. To the patient himſelf however I would beg to ſubmit, "*whether he would attempt to increaſe and diminiſh a* FIRE *by the ſame means?*" *Would he not employ* Fuel *in one caſe, and* Water *in the other?* To attempt to diminiſh a flame by means of oil, or to encreaſe it by pouring on water, would be juſt as abſurd as to treat the different

different ſymptoms of the diſeaſe in queſtion with the ſame remedy.

The deplorable, and even ſhocking caſes of ſome unhappy patients who have applied to me after taking the Friars, and Jeſuits Drops, and other ſimilar remedies, in the firſt ſtage of the diſeaſe, firſt induced me to publiſh an addreſs of this nature; and I ſhould have conſidered myſelf as having been guilty of neglecting a very important duty to the public, had I remained ſilent on that point. Were it conſiſtent either with decency, or honour, to publiſh the accounts of thoſe caſes, and the names of the parties, the relation would excite as great a degree of horror in the breaſt of the reader as the caſes themſelves did in mine. And at the melancholly recollection of them I cannot but again expreſs my aſtoniſhment at the remiſſneſs of thoſe whoſe proper buſineſs it is, in not putting a ſtop to ſo alarming an evil as that before-mentioned, by means of which the conſtitutions of the flower of our youths are ruined even before their prime. I am wholly unknown to the proprietors of the medicines alluded to, and therefore cannot be ſuppoſed to write from motives of perſonal reſentment. Were they even my brothers, juſtice would oblige me to treat them in the ſame manner. And it is

neceſſary

neceſſary for the public to be informed, that having procured a ſufficient quantity of each of the medicines above ſpoken of, I examined them myſelf, and obtained the favour of ſeveral of the faculty to examine them likewiſe. We do the proprietors the juſtice to acknowledge that for gleets, ulcers, and mere relaxations, or weakneſſes *remaining after the diſorder*, thoſe medicines would, in moſt caſes, be very proper. *But if, on the contrary, they are taken* BEFORE THE INFECTION IS PERFECTLY SUBDUED, *they will infallibly do miſchief.*

The patients of whom I ſpoke above had all of them taken thoſe medicines in recent caſes. As they are powerful ſtrengthners they preſently ſtopt the diſcharge, and the patients thought themſelves cured. But inſtead of a cure, the infection, which ought to have been drained off by the diſcharge, was thrown back into the blood; and thus what was at firſt but a *ſimple Gonorrhœa*, broke out ſoon after with all the dreadful ſymptoms of a *confirmed Lues*. And here I cannot but remark, that thoſe who are unacquainted with the nature of this diſeaſe, and of impatient tempers, think much if a cure is not performed in a few days, ſince every quack bill promiſes as much, and even ſpeaks of it as a thing very eaſy to be accompliſhed,

accompliſhed, *and ſurely*, (ſay they) *a regular practitioner ought to be able to do it at leaſt as ſoon as an empyric.* They very unhappily imagine that if the diſcharge be ſtopped, the diſorder is cured. And I am ſorry to obſerve that there are not wanting thoſe who villainouſly take advantage of this prejudice; and by means of powerful aſtringents and corrobborants, ſuddenly check the Gonorrhæa, ſo that the deluded and inexperienced patient thinks himſelf well. As the bad conſequences of this treatment do not immediately appear, nineteen young men in twenty will have had ſome freſh connexion before that event takes place: ſo that when it at length happens, they do not ſuſpect it to be the effect of the raſcally treatment of the doctor, but conclude that it is the conſequence of the recent connexion. The doctor's reputation is ſaved; and the credulous patient, confirmed in the opinion of his ſkill, applies to him to compleat the ruin of his conſtitution, already ſo fatally begun.

It appears by the concurrent teſtimony of all judicious practitioners who have written upon the ſubject, that the running ought not by any means to be check'd while any ſigns of infection remain, as a confirmed *Lues* will moſt certainly be the conſequence. For this reaſon, not only

 the

the medicines before ſpoken of, but all others of a ſimilar kind, whether they are to be taken internally, or uſed as injections, in this ſtate of the diſeaſe, ſhould be ſtudiouſly avoided. It may probably be aſked, "what medicines ſhould be given?" My anſwer is, that it was not my intention to write on the treatment of the diſeaſe, but to caution the unwary againſt the uſe of *improper remedies*.—That directions for treating this malady, however clearly laid down, would be more likely to be productive of bad conſequences than otherwiſe, in the hands of thoſe to whom this paper is addreſſed; as, for want of experience, it would ſcarce be poſſible for ſuch to make the proper uſe of them. For the diſorder in its different ſtages, and in different conſtitutions even in the ſame ſtage, appears under ſo great a variety of forms, and require ſuch different methods of treatment, that thoſe only who have long made it their ſtudy and practice, can be proper judges of it. Were I therefore to write directions for the cure of the diſeaſe, it would be addreſſed, not to the *patient*, but to the *practitioner*; and perhaps it may not be deemed preſumption if I mention that I have ſuch a work in view.

The

The beſt and moſt friendly advice that can be given to the patient, is not to think of curing himſelf, whether by following the directions given in medical treatiſes, or otherwiſe; but leaſt of all by *quack medicines*. On the contrary let him nobly endeavour to ſurmount a falſe ſhame, which would be of the moſt fatal conſequence to him, and immediately reveal his caſe, in perſon, or at leaſt by letter, to ſome regular practitioner of known integrity and ſkill in his profeſſion. His conſtitution, and health will then be preſerved; his failing remain a ſecret; and his complaint, be cured at perhaps a leſs expence than even a ſingle packet of ſome of thoſe medicines which he could only take to his deſtruction.

Lately Published,

PHILOSOPHICAL OBSERVATIONS

ON THE SENSES OF

VISION AND HEARING;

TO WHICH ARE ADDED,

A *Treatise* on *Harmonical Sounds*, and an *Essay* on *Combustion* and *Animal Heat*.

By J. ELLIOT, Apothecary.

To be had of J. MURRAY, Bookseller, in *Fleet-Street*.—Price 3*s*. 6*d*.

Of this Work, the Reviews give the following Character.

" We cannot help being greatly prejudiced in " favour of the Author, on account of the many " marks of real ingenuity exhibited in this per- " formance, particularly in the theory relative " to *Combustion* and *Respiration*, *&c*."

Monthly Review.

" The

"The ingenious Author has been happily "purſuing the inveſtigation of truth, by a train "of facts the beſt adapted for the accompliſh-"ment of his deſign; and there is reaſon to "hope for a farther extenſion of natural know-"ledge from the induſtry of one who diſcovers "ſuch a talent in philoſophical reſearches."

Critical Review.

The *London Review*, after giving a very favourable account of the work, adds.—"We "ſhall cloſe this article with obſerving that if "Mr. Elliot's future ſituation and circumſtances "ſhall enable him to proſecute experimental en-"quiries, his labours promiſe to be very de-"ſerving of the public attention."

London Review.

The other periodical publications, ſpeak of it in terms equally favourable.

Speedily will be Publiſhed.

The Elements of thoſe branches of Natural Philoſophy, which are connected with Phyſic; chiefly deſigned for Students in that Art.

By the ſame Author.

A N

AN

ESSAY

ON THE

HEAT OF THE BLOOD,

AND THE MOTIONS OF

ANIMALS AND VEGETABLES.

IN a book which I lately publiſhed, intitled *Philoſophical Obſervations, &c.* I advanced a propoſition. "that the vital motions of the ſyſtem depend on the communication of phlogiſton to the blood,"

blood," and endeavoured to make it appear that " for a nerve to cauſe the action of a moving fibre, it is neceſſary that the nerve ſhould impart phlogiſton, either immediately, or mediately, to the blood flowing through, or by, that fibre."

I applied this principle to the *voluntary*, as well as to the *vital* on *involuntary* motions of the body.

The nerves may be divided into three claſſes, 1, thoſe which ſerve for ſenſation. 2. Thoſe which miniſter to voluntary motion. And 3, Thoſe on which the vital or involuntary motions depend.

During the time of ſleep, the heat of the body is as great or very nearly ſo, as in waking; tho' the nerves ſerving for ſenſation, and voluntary motion, are then inactive. The like may be obſerved of an hyſteric, or apoplectic fit, *&c.* and yet the heat of the body alſo depends on the communicating of phlogiſton to the blood, as I have endeavoured to make appear, and as the ingenious Mr. Crawford, has more fully ſhewn.

The heat of the blood therefore depends on thoſe nerves, or on the action of thoſe fibres which

ſerve

ſerve for the *vital* or *involuntary* motions of the body.

In violent exerciſe however when the voluntary muſcles act powerfully, the heat of the blood is encreaſed. The reaſon of which is, that its motion being quicken'd, its ſtimulus on, or action againſt the involuntary parts is greater; ſo that more blood is phlogiſticated by theſe fibres than uſual, their action being encreaſed, and therefore more heat is generated.

We have no reaſon for ſuppoſing but that the motions of the voluntary and involuntary muſcles depend on the ſame principle; and the like may be obſerved of the muſcles of hot and cold animals.

But there is a great variety with reſpect to *heat*, which ſeem to proceed from the following cauſes.

Caſe 1. When phlogiſton is communicated to the blood by means of nerves ſerving for *vital* or *involuntary* motion the fire extricated from the blood is abſorbed by the parts, furniſhing the phlogiſton *only in part*.

Caſe 2. When phlogiſton is communicated to the blood by means of the nerves ſerving for *voluntary* motion, the fire extricated is either *wholly, or very nearly* abſorbed by the parts furniſhing the phlogiſton. They may even have a power of abſorbing *more fire* than is extricated from the blood. But the former ſeems to be the truth.

Heat therefore muſt be produced in the *firſt* caſe. In the *ſecond*, either *no heat*, *very little*, or even *cold*, may be occaſioned according to circumſtances, tho' probably neither heat nor cold.

In cold animals the *ſecond* caſe may obtain both with reſpect to the *voluntary* and *involuntary* parts. Or it may obtain in the *voluntary parts only*, and in the *involuntary parts* the firſt caſe may take place, tho' in a leſs degree than in hot animals; for even fiſhes, *&c.* are of an higher temperature than the ſubſtances ſurrounding them. And in different animals this may obtain in a greater or leſs degree; hence their various temperatures.

Theſe caſes were ſuggeſted to me by the conſideration that the cauſe of muſcular motion

muſt be the ſame in all the inſtances above ſpecified, and the following experiments ſeem to confirm the opininon.

Expereriment 1. By comparing the abſolute heats of the fleſh of a *bird*, and of a *fiſh*, that of the *fiſh* ſeemed to be rather the greateſt.

Experiment 2. By comparing the abſolute heat of the fleſh of an oxes heart, with that of the muſcles of the leg, that of the heart ſeemed to be the *leaſt*.

The fleſh in both theſe trials was ſeperated from the tendinous, and other matters, but for want of good thermometers, and other conveniencies, they were rather *crude eſſays* than *deciſſive* experiments, and require confirmation by more accurate trials.

In the ſecond experiment it muſt be remembered that the *heart* ſerves chiefly for *involuntary motion*. That its ſenſible heat, during life, is greater than that of the voluntary muſcles (in hot animals) further appears by its fat, which for this reaſon, is made to congeal ſooner, or in a greater degree of heat, than that of other muſcles; and this is alſo an other argument that the abſolute heat

of

of the heart is leſs than that of the voluntary muſcles.

It muſt be remembered too that the muſcles ſerving for *voluntary motion* are likewiſe continually exerting involuntary action.

The above may perhaps be conſidered as a farther illuſtration of the propoſition advanced in my book before mentioned, "that there is a connection between the action of the moving fibres, and the phlogiſtication of the blood."

The *manner* in which the action of the fibre is effected whether by means of æther extricated from the phlogiſton, encreaſing the attraction of the particles of the fibre, or as ſuggeſted in the 12th ſection of that book, remains a queſtion. But the fact alone would be ſufficient for the purpoſes of phyſic. And this may perhaps be farther illuſtrated by the conſideration that on opening a vein, the blood looſeth of its dark colour as the patient becomes more faint: as well as by other circumſtances mentioned in the 10th and 11th ſections of my book.

Alſo, I advanced that only an earthy matter is ſecreted by the brain into the nerve, the phlogiſ-

ton being abſorbed from the chyle. For this purpoſe a *vapoury* ſtate may be neceſſary. The decompoſed vapor may be the *lymph* in the *body*, and the *perſpirable matter* at the *ſkin*; it not being, perhaps, convenient to place a ſufficient number of lymphatics there to abſorb it.

Around the fibres is a pulpy or mucous ſubſtance (the *putreſcent* part of the ſyſtem) which may be the compound formed of theſe, ſpoken of at the end of the book. Or do the involuntary parts only, communicate phlogiſton to the blood? for in ſyncope's, when the involuntary parts act leſs, the venous blood is more florid than in health; tho' I have not yet had occaſion to obſerve that the blood is more florid in ſleep, or an apoplectic fit, *&c.* than in waking. If this be the caſe then the blood is phlogiſticated only by the involuntary parts: or perhaps not directly by either. The nerves may contain a matter the baſis of nutrition, ſecreted into them by the brain; and may have, beſides, the property of retaining the æther, (or ſome very ſubtle elaſtic fluid,) extricated from the phlogiſton, or ſome how generated in the act of phlogiſticating the blood, which then may ſerve for the purpoſe of motion, to be occaſionally driven into the

muſcles

muſcles by the will, by ſtimuli, *&c.* It may be repelled by the particles compoſing the fibres, which therefore will be brought nearer together. Hence their contraction. But as it will inſtantly be driven away, there muſt be a continual derivation of it into the fibres as long as they are required to be kept contracted. This æther then may not phlogiſticate the blood, but may, on the contrary, be produced by that proceſs, as above ſuggeſted. The ganglions, and brain, may be repoſitories, for the purpoſe of retaining a greater quantity of it. This may be the vital principle in the body, (I do not mean the Soul;) and that this vital principle is neither fire, nor phlogiſton, ſeems to appear from ſeveral conſiderations. Sir Iſaac Newton, at the end of his optics has ſuggeſted that this ætherial medium is the cauſe of muſcular motion: and I have ſtarted an idea, that this medium is attracted by, and makes a conſtituent part of phlogiſtion in its pure ſtate. But I wave the conſideration of theſe matters, as being of no conſequence to the propoſition. I only mean to advance that *there is a connexion, or dependence, between the phlogiſtication of the blood, and the action of the fibres,* the particulars, future enquiries muſt illuſtrate.

If this doctrine be true, a capital uſe may be made of it in phyſic. Many diſorders may ariſe from the too violent, or too weak, attraction of the blood for phlogiſton, and the action of the fibres in conſequence thereof, and the intention of the phyſician, will be directed accordingly. Differences of conſtitution may alſo depend, in part at leaſt, on this principle. Inflammatory diſorders, fevers, haſty or paſſionate tempers, and the like may proceed from too ſtrong, and their oppoſites from too languid an attraction of the blood for phlogiſton. Some poiſons too may kill by deſtroying or weakening this attraction.

The motions of the fibres of *vegetables* may depend on the ſame principle as that of animals, (ſee caſe 2 above) and, as fiſhes purify the phlogiſticated air by agitation with water in their gills? So light has the ſame effect on that phlogiſticated by vegetables?—Thereby not only making the air ſerve again for the ſame purpoſes, but turning the phlogiſton ſeparated therefrom to their nouriſhment and perfection?—Of theſe things however, I may have occaſion to ſpeak more at large

large in a future edition of my book, which will alſo contain other additions and amendments.

——————φαμις νῶϐελλι τιμϐυρ

Æn.

FINIS.