A treatise on the causes and effects of inflammation, fever, cancer, scrofula, and nervous affections : observations on the correctness of Linnaeus's classification of diseases, together with remarks on the specific action of his patent medicated vapour bath, and rules for diet and regimen / by Charles Whitlaw.

A

TREATISE

ON

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AND

NERVOUS AFFECTIONS,

&c. &c.

Lately Published by the same Author,

WHITLAW'S NEW MEDICAL DISCOVERIES, with a DEFENCE of the LINNÆAN DOCTRINE, and a TRANSLATION of his VEGETABLE MATERIA MEDICA. Two Vols. price 15*s.*

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RULES FOR DIET AND REGIMEN.

BY

CHARLES WHITLAW.

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PREFACE.

The unsettled state of medical opinion respecting the cause and treatment of fever, will be a sufficient apology for the publication of the following treatise.

It is not from a vain desire of again appearing in print which has induced me to snatch a few hours from a laborious and extensive practice, but to communicate to the public, as well as I am able, the observations which I have made during thirty years' intercourse with the afflicted in various parts of the globe. I know that with many persons the very simplicity of my opinions will detract from their real value; but the rational and thinking part of the community will see that I have advanced nothing contrary to common sense, or at variance with the laws of nature. My opinions are not the offspring of theoretical deduction, but the result of anxious enquiry and patient investigation,—and my opportunities of judging have not been few, nor my practice limited.

Those who are at all acquainted with the medical literature of the ancients will see that the views I entertain are neither singular nor new, having been first propounded in the aphorisms of the immortal Hypocrates, adopted by Aretæus, Galen, Rahezes, and Avicenna, and established, to a demonstration, by the experiments of Linnæus and his disciples. The fevers so well described by Hypocrates are the same as those which have descended to us, arising from the same causes, and requiring the same mode of treatment; they may, indeed, be modified by the various circumstances of climate and habit, but

their specific character is still preserved: as a flower may undergo particular changes by cultivation, or transplantation from one climate to another, still its class and order will seldom be mistaken,--its natural order never: so that in whatever portion of the globe a botanist meets with a flower, he is at no loss, however disguised, to assign it to its proper class and relation.

My principal object in this work has been to point out the cause of fever, by which it may be avoided, and which may lead to a more successful plan of treatment. Had medical men been more anxious in investigating into the cause of disease, and less solicitous in hunting after secret remedies for the cure, medicine had never become an object of ridicule, nor the names of its professors branded as the scourges of the human race. The system of medicine and surgery (says a late eminent writer), which is established in any country, has a greater influence over the lives of its inhabitants than the epidemic diseases produced by its climate, or the decisions of its government concerning peace or war; the devastations of the yellow fever will bear no comparison with the ravages committed by the Brunonian system: and the slaughter at the field of Waterloo counts not of victims a tithe of the number of which the Cullenian doctrine of debility can justly boast.

What reception this work may meet with at the hands of the selfish and narrow minded, generally the most numerous of every profession, I am ignorant, but not solicitous; I have received no favour at their hands to acknowledge, nor could I expect it from men proverbially illiberal, prejudiced, and self-interested; and as to their resentment, I have borne it too long to value it; they have never failed to persecute me with a spirit which might have done credit to the emissaries of a Don Miguel.

I cannot also help adverting to the ungentlemanly

conduct pursued by certain physicians, who, while professing to be the leaders of religious meetings, and the ornaments of Christian principles, are, nevertheless, secret slanderers, who would stab the reputation of a man of whom they know nothing, save and except his curing some of their worst patients,—such men deserve my pity rather than indignation.

When I first proposed my new discoveries to the consideration of the faculty, as instruments for the benefit of the afflicted, I was assailed on every side, and stigmatized with every abusive epithet; this, from the past history of physic, I was prepared to expect: for almost every discovery or great improvement in that art we are indebted to the uncivilized, who, not accustomed to sophistical reasoning, follow the dictates of nature, and have contributed more to the pharmacopœia than the schools of all ages; as well to those who had never studied medicine as a science; consequently medical men generally have set their faces against every new remedy, without knowing its merits, and condemned it as innovation and quackery; but the fierce and determined opposition with which they assailed me has rebounded on the authors and propagators: public enquiry was excited, and investigation led to the conviction that my pretensions were not those of a mere theorist, having something like reason and experience for their foundation,—which is more than can be said of any theory by which my opponents are guided in their principles of treatment; and now that my practice is generally known, it has been adopted by many medical men of the first respectability and long experience in the healing art; and public authority has sanctioned and hailed it as a blessing wherever it has been established.

As to the secret enmity of a few physicians, although of great notoriety and greater pretensions,

I can only say, that had their skill equalled their arrogance I had never known that such men were my adversaries; nor would their poor unfortunate patients have had cause to regret, that the sneers of interested men should have prevented them from applying to me sooner for the means of restoring them to the enjoyment of health.

However, I utterly despise all taunts and murmurs, as much as I do the authors of them; long endurance of such treatment has produced an apathy to it, and the imputation of ignorance and quackery I throw back with disdain. I have not screened my remedies behind a patent panacea,—I have solicited enquiry, and challenged the most rigid investigation of my practice; and the principles of that treatment I am prepared to maintain on the authority of men, whose gigantic minds were as immeasurably superior to those, my calumniators, as the intellectual range of a Bacon compared with the visionary rhapsodies of a Kant. From the more enlightened part of the faculty, from men whose names do honor to the science of medicine, I have received many marks of kindness, and their proffered assistance merits my most heartfelt gratitude.

On the superiority and great utility of my new-invented vapour bath I have thought it unnecessary to add any lengthened observations of my own, after so much has been said in favour of it by medical men of the first respectability and talent, both in England and America: I shall, therefore, direct the reader's attention to the numerous reports and letters embodied in the work, on which they may form an opinion for themselves.

I have insisted much on the necessity of regimen, from the conviction that thousands of lives are lost through the sheer neglect of medical men in this most important particular, and the unpardonable ignorance of officious nurses, to whom the sick are unfortunately intrusted. The patient should be

informed that it is in his power to facilitate his recovery much more by diet than the physician can do by medicine; without attending to this simple and reasonable maxim the good effects of medicine are often frustrated, and what is worse, rendered destructive to life. The necessity of medicine is at best a misfortune,—its administration always doubtful, and often dangerous: he, therefore, who teaches men how they may live without the necessity of using it, is certainly a greater benefactor to his species, than he who abounds in promises of great cures being accomplished by following pompous prescriptions and farragoes of medicine.

Lastly, with respect to the composition of this work, I am aware that inaccuracies may be met with; and that many might have been prevented if I could have commanded sufficient time to superintend the revision of it for the press. As I have not studied elegance of style, I shall not blame those who may detect a too familiar mode of expression, which cannot injure either the object or merit of the work. I cannot boast of a classical education, and therefore lay no claim to the embellishments which it imparts. My reading has been chiefly confined to the ever-living book of God; to me the book of nature has furnished an ample field of enquiry, and in which I have found a sufficiency for the sustenance of my body in health, and remedies for the relief and cure of all my pains and diseases. Twenty years of my life were spent in collecting and examining the structure of plants,—in searching into the laws by which they are governed, and the purposes for which they are created: in that all-neglected volume of inspiration, without the study of which man can have but an imperfect conception of God, as the creator of the universe, I have found unceasing satisfaction and delight, and which has left no inquietude behind; even the "meanest flower that scents the gale" has often called forth

my admiration and gratitude towards that Being who hath granted me all this indulgence of seeing, in the formation of every plant, the marks of Almighty power and consummate wisdom. In his works there is no *errata*,—the rose which blossomed in the bowers of paradise, is still blooming far and wide over the surface of the earth; its beauty unimpaired, its odour unexhausted, and its healing virtues undiminished.

In the vegetable kingdom, also, we trace the seeds of moral depravity and bodily disease; for however men may cavil, I am bold to assert that there, and there alone, are to be found the laws of life and health, and of moral good and evil; and the man who denies this is ignorant of the nature of his being, and of the laws by which it is governed.

It is with the best intentions I commit this treatise into the hands of the public: if it is instrumental in promoting the good of my species I am abundantly rewarded; therefore, whatever may be said against the doctrines I have endeavoured to establish, in this I shall rest satisfied and assured, that what I have written is founded on truth, and will stand secure when the hand which has recorded it is withered in the dust.

In conclusion, I have to return my most grateful thanks to the respectable members of the medical profession, who, in defiance of medical *etiquette*, have come forward boldly and adopted my views in the treatment of disease, and have shown themselves the friends of truth more than the friends of Plato.

To Mr. Ranking of Hastings, Mr. Winzar of Salisbury, Mr. Lewis of Manchester, Mr. Coleman of Wolverhampton, Mr. Mackness of Northampton, Mr. MacBean of Hanley, and Dr. Purday of Edinburg, Surgeons, as well as Dr. Fairbanks of Behie, in the Brazils, and Mr. Dorwood, Surgeon, at Madras, I am indebted for their candour and liberality, in having established my baths in the face of the

most determined opposition from those medical men with whom they had formerly acted in concert.

I likewise take this opportunity of acknowledging the philanthropy of the clergy of the established church, who in many instances have shewn the most disinterested zeal for the bodily welfare of the poor of their respective parishes, in purchasing my medicines at a great expense to themselves, and administering them without fee or reward to the wretched inmates of workhouses, who had been driven from hospitals, seeking in vain for relief: also to the dissenting ministers of the various denominations, who were my earliest patrons, and who have steadily supported me through good and evil report, and have established my baths in many towns and cities for the benefit of the afflicted of their congregations, among whom I may mention the Rev. R. Elliott of Devizes, the Rev. R. Cecil of Turvey, and the Rev. I. Crump of Weymouth.

Lastly, my unfeigned thanks are due to the medical gentlemen of the United States of America, where my system has almost become universal, having been adopted by upwards of fifty physicians, among whom I may mention in particular the name of Dr. Ireland, who took his stand in favour of my baths and practice when assailed and denounced by the whole college of physicians; and when threatened by them with excommunication for daring to countenance me and my system, declared, " that sooner than part with the bath as an auxiliary in the cure of diseases, he would forego their private friendship, and all the medical knowledge he had previously acquired."

INTRODUCTION.

At the commencement of the hay harvest, in the latter end of May and during the month of June, a new and extraordinary epidemical disease attacked numbers of the inhabitants in and around London: hundreds of persons pursuing their ordinary occupations during the day in the most perfect health, returning home at night were suddenly seized with the most severe symptoms of violent cold,—the pulse became frequent, the skin hot and dry, with occasional shiverings, the discharge from the nose and eyes excessive, accompanied with hoarseness and soreness of the throat; no one could account for this singular phenomena; the weather was warm and the sky serene; we had had but little rain, comparatively speaking, and the temperature of the atmosphere was more steady than usual in this variable climate. About the first of July I had occasion to go some distance into the country, and there found the hay season commencing, and the same disease beginning to shew itself; this circumstance convinced me that the disorder was *endemic*, and arising from the causes which I shall now mention.—After the hay was cut, the noxious properties of the buttercup, and other poisonous weeds which had been growing among the grass, were evolved by the heat of the sun during the day, and being taken up along with the putrid effluvia arising from the manure, which had been used in top-dressing the fields, hung like a mirage of death above the surrounding atmosphere; as soon as the sun set it was borne down by the density of the air, and precipitated in the form of heavy dew; so completely was the air poisoned by it, that few persons escaped being attacked with hay fever or influenza.

In consequence of the pressure of business, and having to visit many of my patients at night, I also became afflicted with the disease,—my throat, eyes, nose, brain, and lungs suffered exceedingly from the pungent effects of the air; my eyes were so inflamed as to cause a considerable discharge of lymph from them, and I was affected with a violent spasmodic cough.

When we consider the pernicious effects produced from the milk, butter, and butcher-meat, subjecting the bodies of those who use them to inflammatory attacks, it is not to be wondered that the influenza should become almost general, but with greater propriety it might be called the buttercup fever. Those who choose to differ from me in regard to the name which I have given to the disorder, if they will put my views on the subject to the test, may soon be convinced that the buttercup is the cause of the disorder: take a large handful of the roots and stems of the buttercup, put them into a half gallon pitcher, pour three pints of boiling water over them, and inhale the steam into the lungs, or snuff it well up the nose for half an hour, which will convince them I have given a more appropriate name for what is called influenza, by calling it the buttercup fever. It may be recollected the wind shifted round to the north-west, and blew such a gust of our poisonous air over upon the poor French, that it literally converted the North of France into an hospital.

The inconsiderate and fools may scoff at my conclusion, but the greatest eruption of Vesuvius, or the earthquake at Lisbon, were but like a drop in the bucket to the million of hay-ricks and stacks sending out such a pestiferous smell as if they were on fire, and all contributing to that whirlwind of destruction which must fall with accumulated weight on a large portion of the inhabitants of this country, which might have been prevented had our agricultural rulers, and professors of medicine, studied the laws of nature and the laws of life and health.

Seeing the melancholy situation of the country, I deter-

mined to make a tour to the West of England, Ireland, and Scotland, to endeavour to gain all the information I could respecting the cause of the diseases of the animals and people. I first proceeded to Birmingham, and at my vapour bath establishment at that place examined a number of patients, and never saw so many, out of a given number, with diseased stomachs; indigestion was the common order of the day, bringing in its train scrofula, cancer, leprosy, consumption, bronchitis, tic doloureux, and all sorts of nervous hysterical complaints, frequently fits and insanity. I went, accompanied by Mr. Cecil, to one of the chief butchers, who said he had not killed more than one sound sheep in fifty, reared on English pasture, last winter; they were either affected with flukes, consumption, scrofula, hydatids, dropsy, diseased brain, windpipe, liver, foot-rot, inflammation and ulceration in the stomach and intestines, &c. Can we then wonder at the great mass of disease among those who use them as food. He observed, that the mortality amongst the stock, from the West-Riding of Yorkshire to the South of England, had been great beyond all precedent: and that there was a considerable importation from the South of Ireland, which was generally sound. The greatest number of the milch cows that had been fattened, were mostly affected with flukes, and had their livers diseased, with but few exceptions.

I visited Wolverhampton, and found a number of the children and youth affected with fits, insanity and idiotism, and the various disorders common at Birmingham. Mr. Coleman, an eminent surgeon, agreed with me, that the hay was the cause of the influenza. The fair was held at Wolverhampton during my stay there; the farmers informed us, that a number of the horses were dying of the strangles. Accompanied by Mr. Coleman, I proceeded to a farm in the neighbourhood, to see a number of them which were affected with the disorder; but, in reality, found it to be the buttercup fever: they had a copious discharge of mucus and water from the nose, inflammation in the brain, lungs and wind-

pipe, attended with a suffocating asthmatic cough, and swelling of the legs; one had died that morning, and was dissected, and others were in a dying state: on my journey, I saw many die in the same way. Some may think differently from me; but I feel certain, that were horses fed on wholesome provender, and grass free from noxious weeds, no such disorder would ever affect them.

I also visited Hanley, and saw at my Vapour Bath Institution at that place, a number of formidable cases. Mr. McBean, surgeon to the institution, told me he had never seen so many diseased stomachs in his life as he had the few months he had been at Hanley. I found my bath and practice had been of the most essential service at the above-named places, in the cure of the influenza, and in the various other disorders; the patients expressed themselves very grateful to Mr. Coleman, Mr. Cecil, Mr. McBean, Mr. Slack, and myself, for the great benefit they had received.

I then proceeded to my establishment at Manchester, and found there, as well as at the other places, the baths in active operation under the superintendance of Mr. Lewis, surgeon, whose zeal and well known superior skill must be attended with important benefits to the afflicted; he had a number of the most inveterate cases of acute and chronic diseases of every description; particularly rheumatism, tic doloureux, leprosy, and the before-mentioned diseases which I met with at the other establishments. Great success resulted to the patients from my mode of practice, notwithstanding the cures were retarded for the want of good milk, butter, and butcher-meat. I went with Mr. Lewis to one of the most respectable butchers in Manchester, who gave us a truly melancholy account of the sheep and many of the cattle for the past three years; and observed, that the markets were at that time chiefly supplied from Ireland. From London to Liverpool, with few exceptions, I saw the pasture lands literally covered with useless weeds (which the stock will not eat), completely exhausting the soil; such as ragweed, the various species of thistle, ox-eye daisy, docks,

hawk-weed, and dandelion; and many of the grain fields were much choaked with weeds. On enquiry, I found the farmers generally in a state of bankruptcy, and unable to cultivate the soil.

I went to Dublin, and found that country in a still more deplorable condition: in consequence of the neglected state of agriculture, and the inability of the farmers to do justice to the soil, they have suffered poisonous and other weeds to take possession of the fields, and shed their seed; indeed the weeds in many parts are more abundant than the grain: at present, the stock is not so much diseased as it is in England, but if not attended to, it will soon become so. I lectured in the Rotunda, and the deputy-mayor took the chair; the sheriff-deputy, some of the professors of the college, and a number of the inhabitants attended; when I gave them a statement of the fearful host of diseases that are bursting in upon us, in consequence of the neglected state of our agriculture diseasing the animals; and, by the use of them, communicating their diseases to those who partake of them. I pointed out the advantages of the vapour bath, and vegetable medicines, in curing disease, and the absolute necessity of sound provisions in facilitating the cure, and ensuring a continuance of health. Dr. Pope said he agreed with me in the view I took of the subject, as what I had stated was a melancholy fact: the diseased state of the country was most appalling to the humane and contemplative; and the present state of medical science was inadequate to relieve the great mass of suffering, far less to cure it. He was thankful for the discoveries I had introduced, and would do every thing in his power to assist in extending the benefits to his country, particularly to the afflicted poor. The high sheriff stated he came to my baths in London with his brother, in a most deplorable state of rheumatism, and was otherwise unwell: he took the baths and medicines, and became perfectly well: he considered it a remarkable case. I told him at the time, he had been using bad butter, and pointed out to him the superiority of the Dutch butter over

the Irish or English; he expressed his surprise, as he thought the soil, climate, and situation was in favour of Ireland. He went to some of our first butter merchants in London, and found the Dutch butter very superior: the merchants told him, it was worth three-pence per pound more. Like a true patriot, he sent his son to make a tour in Holland, and endeavour to ascertain why the Dutch butter was so superior. On his arrival, he was astonished at the clean fields, as not a weed was to be seen. He made inquiries, and found the laws of the country obliged the farmers to keep their fields clear of weeds: as the law stands, no man is allowed to injure his neighbour's property by allowing the seeds of the weeds to be blown over his fields; and no man is to permit poisonous weeds to infest his soil, to the destruction of his neighbour's health and life. There are persons appointed to inspect the fields; and if they find such plants growing, the farmer is desired to destroy them; if he neglects to do so by the next time of inspection the farmer is fined, and the fine is most rigidly exacted; and if not removed by the third inspection, he is ejected from the farm by order of government. If such a law were established in this country, it would be attended with the most beneficial results. The sheriff's speech recalled to my mind what Dr. Mhulinburg, of Lancaster in Pennsylvania, had told me of the indefatigable industry of Boerhaave, Linnæus, and Baron Haller, in prosecuting the study of those plants that were destructive to animals; they made many experiments, and pointed out the effects of the various poisonous plants on animals to the landlords and farmers of Holland. What a heavenly gift such men are to any country: no doubt the policy that they recommended is the cause of such salutary regulations. Thank God, the works of such men still exist, and will live in the grateful remembrance of posterity, when the names and works of those impostors will be forgotten or despised, who misled our medical and agricultural policy. Mr. Mallett farther observed, that with but few exceptions neither the

landlords, who for the most part were spending their money in foreign lands, or the farmers, who were mostly ruined, had any money to improve the land; he recommended that a company of men who had money should be formed to improve the land, in order that a famine might not become universal in the country; he fully agreed with me, that were the resources of Ireland called into action to their utmost extent, they would furnish a sufficient surplus of provisions to England, if the latter country raised nothing: and yet such was the state of misrule, that a large portion of the community were starving. I hope Mr. Mallett's recommendation will be carried into effect. I found the *ranunculus flamula* increasing rapidly, and extending its baneful influence to a great extent; cancer, nervous complaints and tic doloureux are, in consequence, increasing in number and virulence. The nobility of that country are much diseased, through the richness of the land around their mansions, being filled with all manner of poisonous weeds; they are compelled to go abroad in quest of health; which is one of the reasons for absenteeism, and which is owing to themselves and their medical attendants being ignorant of the laws of life and health.

I returned to Manchester, where I gave two lectures in the Exchange to a most respectable assembly; many of whom were so convinced of the propriety of my remarks, that they intend to put my views into active practice, in order to get sound provisions for their families and our patients. Thus far my labours have been beneficial to that portion of the the community.

I went to Greenock, in Scotland, and found the sheep had been in a most terrible state during the last winter and spring with the fluke, dropsy, and braxey, or what we call the rot; the name should be cholera morbus. In the latter part of July, consumption and foot-rot were extremely prevalent, unless they killed lean sheep, which were perfectly sound. The cholera morbus was beginning to make its appearance in almost every town in the country, particu-

larly at Port Glasgow. The medical men of that town became alarmed, and immediately communicated with government; and a physician of some experience in the cure of the Indian cholera, was forthwith ordered to the spot, to inquire into the cause of this so much dreaded calamity, and point out the cause of the disorder; he left them as ignorant as he found them: all the information he afforded to government on that subject was, that it had existed at Port Glasgow for some years past; a number had been affected by it, but were getting better: so that the government was just as wise as the people,—that some died, some were bad, and some got better. The learned gentleman should have informed the government that the landlords, farmers, and doctors in that neighbourhood, were ignorant of the laws of nature; which I suppose is the case, or they would not allow their fields to be overrun by all manner of poisonous weeds and flukes, diseasing animals and people with cholera morbus, particularly the calves and lambs reared by dams affected with the cholera; and which if necessary I could prove was the cause of affecting the inhabitants. Consumption and foot-rot among sheep were at that time the most prevailing disorders along the banks of the Clyde: and the inhabitants were terribly diseased with indigestion, cancer, scrofula, tic doloureux, leprosy, rheumatism, sciatica, and a host of chronic diseases; it would tire the patience of Socrates to read a detail of the causes that called them into existence. A more warm-hearted, hospitable people could not be than they were, but they are now likely to be involved in one fatal physical calamity: at this time there is scarcely a family free from disease. I hope that God in his mercy may send them speedy deliverance, by opening their eyes to behold the wonders of his laws; and by their gracious application, they may be restored to health again.

I went up Loch Lomond, and stopped, on my return, at the Inn on the road-side leading to Loch Fynne, where a shepherd was killing a sheep; no sooner did he rip up the

skin of the belly, than a flood of water ran out from between the flesh and the skin. He told me it was a common occurrence; when the sheep were brought from the mountains and put on the bottom pastures to fatten, they would fatten rapidly; but if they were not just killed in time, they would die of the braxey. The sublime scenery abounding with innumerable flocks of sheep and black cattle on the road to Loch Fynne, was truly grand. The cultivated lands were foul, especially with the *equisitum arvanse*, or corn horse-tail, which is so fatal to sheep: it first brings on a very constipated state of the bowels; after which, diarrhœa or cholera follows. The bottom lands are in many places covered with it; and even as far as cultivation extends up the sides of the mountains.

I went to examine the fine scenery round Inverary, and called upon Mr. William Carson, who was bred a farmer in Dumfrieshire; for sixteen years he had resided in Inverary as farmer and butcher; he was a close observer of the progress of agriculture; and the great increase of disease among the sheep had already excited his particular attention: he discovered the crow-foot or butter-cup was the cause of consumption in the sheep, but was at a loss to know the cause of the staggers in sheep and cattle in the spring. After visiting the Duke's Palace, and walking over the Park, I found the *cicuta verosa*, *æthusa* or fool's parsley, and other umbelliferous plants, growing close to the Palace in sufficient quantity to have poisoned all the sheep and cattle with the staggers on his domain. The humidity of the climate in spring makes most of the umbelliferous plants poisonous to the stock. Mr. Carson observed, he did not think there was a place in the world that could raise better sheep and black cattle than the county of Argyle, if it were properly drained and cleared of weeds on the sides and tops of mountains; that they might be drained with great advantage to the stock, and would be a great national blessing.

I returned to Glasgow, and found the sheep in an equally

bad condition, and the inhabitants affected with chronic diseases of every description, and many with cholera morbus. On my way to Edinburgh I was much grieved at seeing the vast increase of weeds in the pasture and grain fields within a few years: on my arrival at Edinburgh, I found the fields in a bad state, and filled with buttercups and other poisonous weeds. Dr. Macauley, in his Medical Dictionary, observes, "By the use of butter the inhabitants of Edinburgh are much diseased, particularly the children." I most cordially agree with him in his opinion on that subject, as the butter now made is the product of the oils of poisonous weeds; but for the consolation of the inhabitants of Edinburgh I can assure them, that the butter produced from clover, and the various wholesome species of grass, will never injure the most delicate constitution; it is a great luxury, and ought to be an indispensable article of diet when good.

On my arrival at Haddington, a degree of hope had sprang up, in consequence of my labours amongst them last year; many of the most intelligent farmers had read my book entitled "Whitlaw's New Medical Discoveries," and agreed with me in the view I had taken of the subject. Mr. Bogue, of Lumplumm, one of the most extensive farmers in the county, had five score of sheep rotted by being put into pasture where the poisonous weeds grew caused by the cows' manure that was dropped in the field, and which the sheep eat greedily; when killed, not one sound one was found amongst the whole, although all were sound when put into the field. He observed, after the numerous proofs I had given, and the experiments that were made in the county last year (and the experiments which he himself had made were positive, undeniable proofs, of the poisonous weeds diseasing the stock), he had no doubt of their destructive effects on the constitutions of the inhabitants: he had ploughed up and summer fallowed nearly a hundred acres of land; and, what was of greater importance, the land was most profitable, as it yielded a double crop the ensuing sum-

mer, independent of the improvement of the soil, as well as the health of the public; and, as the sequel will prove, that routine cropping will yield a greater profit to the farmer than permanent pasture. He was sorry that the avarice of the landlord had exacted such enormous rents, as quite disabled the farmer doing justice to the soil, and had driven some of the best of them from the country; those who had taken the farms at the enormous rent, were scourging the land to make the two ends meet; many of them were entrenching upon their capital, while others were involved in debt: and for the last five years the county had fallen greatly in value. I was quite astonished to see the apparent deficiency of grain for the last three years, and am certain that half a million would not put the country in such a healthy state as it was ten years ago. It was with extreme regret that I found the acquaintances and companions of my youth had been driven from the soil, whom I knew, by their talents and industry, had converted the county from moors, swamps, and comparatively a sterile soil, to one of the most fertile spots on earth. These men were an honour to the human race, and great benefactors to their country, and their example was a blessing to mankind.

Buonaparte observed to the American ambassador, that the Scotch, by their perseverance and industry, had made their country, which was one of the most sterile in Europe, one of the most fertile; and recommended the French to translate their works, and follow their example; and yet many of those benefactors to their country have become indigent, after having expended thousands of pounds in the improvement of the soil. Ten years ago it would, through their industry, yield more than three times the quantity of grain and stock than it would thirty-five years ago, and at least three times the yearly rent: for notwithstanding the counties round London have the advantage of being near the market, as well as having a superior soil, they do not pay half the rent that the farmers in the

Lothians of Scotland do; the soil round London is much better than the Lothians of Scotland was forty years ago.

Having pointed out the causes of some of the most serious evils that are now assailing the inhabitants of the three kingdoms, and throughout the work have endeavoured to turn the attention of the public to them, I shall proceed to notice the mismanagement of our agricultural and horticultural policy; and at present I must be under the necessity of condensing my remarks in the form of aphorisms, as neither time, nor the limits of the work, will allow me to say much more.

Aphorism I.

There is a sufficient quantity of uncultivated land in the three kingdoms, if properly drained, composted, and cultivated, to produce ample subsistence for all the inhabitants of the three kingdoms: there is no country which has so great advantages of combining and fertilizing the various soils: we have ingenuity and materials, if called into action, to make canals and rail-ways to bring the golden treasures from one part of the kingdom, that has lain dormant since the creation, to combine with others, which are equally valueless until such combinations take place: and by want of proper draining, and the use of improper manure, most of the land has become sour, and fosters all manner of poisonous insects and weeds.

Aphorism II.

A large portion of the cultivated soil in the three kingdoms has been rendered unfit to raise prime food, as the crystals or particles of the earth are much divided and exhausted by shallow ploughing and constant cropping; consequently it will not yield any crop unless forced by manure: the pernicious custom of ploughing-in fresh or recent manure, may raise a bulky crop, but the grain will be of a bad, unwholesome quality, partaking largely of the noxious properties of the manure; the flour will be deficient of a

fourth or fifth of the gluten, which is its most nutritive property, and equally deficient of the other properties necessary to the support of life and health; neither will the flour keep; besides, from the use of it, the whole mesh-work of the body, particularly the muscular and tendinous parts, become injured; the muscles and tendons may be large, and yet deficient of elasticity and power. Thirty years ago one American would fell more timber, or perform a greater portion of any other work requiring strength of muscle, than two Englishmen: the American horses will undergo more fatigue than the English, for the same reason. Englishmen and English horses have stronger bones than the Americans, in consequence of the abundance of argillaceous earth and lime combining with their food; and where strength of bone is required, they have the advantage.

Aphorism III.

When the arable land is properly drained, half a ton of salt per acre ought to be sown over the pasture and grain fields; and three weeks after, it should be trenched by manual labour, one or two inches deeper than most of the soil will admit of: and in order to convert it into the best of earth, the whole of the soil round the hedges and fences that have been so carefully preserved, and which form such a capital harbour for slugs, and all manner of insects and vermin, that go out of their strong holds and overrun the grain and grass like the locusts of old in Egypt,—besides encouraging the growth of poisonous weeds, leaving their seeds to ripen that the wind may blow them over their neighbour's property,—the whole should be dug out and mixed with lime, salt, wood-ashes, &c., which will convert the whole into the finest stuff to top-dress the land. When the manure from the fences runs short, there is plenty of marle, lime, carbon, clay, schestus, and various other substances, to cover the trenched land. Trenching preserves the crop from the effects of heat and moisture, better than shallow ploughing, and will yield double the quantity of

grain, and amply pay for the excess of labour, by the increase of crop and the improvement of the land.

Aphorism IV.

The farm-houses are generally ill chosen; the most valuable part, or leechings of the manure, for the most part run into the brooks or rivers; the dung is generally carted into large heaps in the field, and mixed with earth, and allowed to lie till a great crop of poisonous and useless weeds mature their seeds, and the insects their larva, and shed them among the dung; it is then carted on the land, as if there were not already enough: every man who has eyes and sense to observe what I have said, will see it is a melancholy truth. In selecting a suitable situation for a farm-house, particular care should be taken to choose it in a dry sheltered spot, where abundance of water can be obtained; the farm-yard ought to be square, and paved like the streets in London, and two feet lower at one end; two large cisterns, one at the end of each gutter, for the leechings of the liquor from the manure to run into. The square to be surrounded by sheds, cow-houses, stables, and barns; the granary to be over the shed; the hay-lofts and corn-lofts to be over the other parts of the buildings; the poultry-house and yard to be built near the running water or a pond; large separate yards for each sort of fowls, so as to communicate with the water; the houses to be heated by steam in the winter, they will lay, hatch, and rear chickens fit for the market in the spring, when other fowls are generally put to hatch; the houses ought to be patent plastered outside and within, and proper pigeon-holes made for the young chickens to roost, and for the hens to lay in; the food should for the most part be steamed, as the noxious parts of all vegetables are dissipated by steam, which renders the poultry more healthy, and the eggs much finer, than when the hens live on the half-digested dung of animals: if the fowls are reared in the farm-yard, they ought to be fed as above. The milch cows ought to have steamed

food twice a day in the winter; the pigs ought to be particularly attended to.* The liquor preserved in the cisterns

* I feel the greatest pleasure in inserting the following letter of Captain Cochrane. The distinguished writer possesses in an eminent degree that noble, patriotic spirit, which has shone so conspicuously in his family. His services ought to be appreciated by government; as it is from such individuals that true national greatness springs.—In a conversation with a Spanish ambassador (who had formerly been a physician), he informed me, that since the salutary regulations mentioned in Captain Cochrane's letter had been enforced, leprosy, and other cutaneous diseases arising from the use of foul-fed pork, had almost wholly disappeared.

York Hotel, Manchester;
4th August, 1831.

My dear Doctor:—Having attended your lecture at the Manchester Exchange-room, with which I was both edified and pleased; and having heard you attribute the origin of leprosy in Scotland to the lower class eating badly fed pork, induces me to lay before you some slight observations I made during my travels in South America, relative to the feeding of pigs. In 1819, I was Lieutenant of His Majesty's frigate Andromache, then at anchor in Callao Roads, off Lima the capital of Peru, Peznela then being Viceroy for the King of Spain, and shortly previous to the revolution of Peru.

I visited every thing worth seeing in the capital, and the surrounding country: amongst other things I was particularly struck with a vast quantity of pigs, upwards of five hundred; I asked why so many were congregated together, when I was informed that government allowed no pigs to be kept in the city of Lima. These pigs were in an extensive piece of ground, dry and gravelly, enclosed in a strong pallisade; through the centre of the enclosure ran a broad but shallow stream; at the upper end of the ground, which sloped towards the stream, were two large sheds, quite clean and dry, under which the pigs lay during the heat of the day, and at night. They were fed twice a day, at sun-rise and sun-set; that is, at six in the morning and six in the evening; for the sun, for nine mónths in the year, is not seen at Lima, an impervious cloud always hanging over the greater part of Lower Peru, and extending one hundred and twenty miles to seaward. It was sun-set when I paid my visit, so that I had the satisfaction of seeing the herd of swine fed; the keepers threw large quantities of Indian corn into the shallow stream, a famous race immediately commenced from the sheds; the corn was eaten in the water, and appeared to agree with them particularly well; the pigs were white, fat, and beautifully clean. On returning to Lima, I ordered some of the pork, and never eat finer; and was informed, that the

from the dung heap ought to be mixed with quick lime, wood-ashes and salt, to destroy the insects, and noxious properties of the manure that may be in the liquor, and the fields watered with it as we do the streets of London : it will answer the double purpose of fertilizing the soil, and destroying the insects in the fields, and will procure a much more healthy produce than by top-dressing the soil with recent manure.

Aphorism V.

Our horticultural policy is equally bad ; nearly the whole of the fruit trees and shrubs have been raised in nursery-grounds, where the soil is completely exhausted ; conse-

natives very much prided themselves on their pork, and considered it the most wholesome food they had.—As a contrast to this I beg to mention, that when travelling from the Atlantic to the Pacific Ocean, through the Republic of Colombia, I came, after crossing the Cordillera of Choco, to the village of Novita ; at which place the natives live almost entirely on pork. The pigs are very large, and kept on the ground-floors, under the dwelling-rooms of the proprietors of the cottages, which are built of bamboo ; these pigs are fed with herbs, refuse, and the offals of their slain brethren ; they lie in a mass of mire, which is plentifully saturated with rain, that runs in at one side of their dwelling and out at the other. It seldom fails to rain once in twenty-four hours in Choco. I ate of this pork ; it was rank, and red-looking ; I could scarcely keep it on my stomach ; and the natives were all of them more or less sickly. But this bad feeding of pigs in Choco is not so disgraceful as that which you may yourself see any time in this city of Manchester, at a livery-stable close to Mosley-street ; the pigs there are confined in a narrow sink, among the fresh horse-dung ; and their food consists of such half-digested corn as they can rout out. In Choco, they had the excuse of poverty and a want of Indian corn, and above all, a want of knowledge ; but here it is love of making money, to obtain which the individual appears to be reckless of the lives of his fellow-creatures: certainly a conduct most disgraceful to a civilized nation, and which calls for the interference of the legislature.

Wishing you, my dear Doctor, every success in your laudable exertions,

Believe me to be,
Sincerely and faithfully, your's,
CHARLES STUART COCHRANE.

Dr. Whitlaw, &c.

quently they are forced with manure, and by these means they have diseased most of the trees, which may be seen covered with excrescences, and filled with all manner of insects. The bark of the trees is covered with mosses, fungous and parasitical plants. The fruit is large, but most of it ill flavoured, and particularly unwholesome. I would recommend the whole of these trees to be destroyed, and a new importation of sound ones. The best plan for preserving fruit trees, is by shaving all the rough bark of the trunk and branches of the tree: then take one part of lime and two parts cow-dung, mix them well in a butt with milk or water, to a consistence like thin mortar; take a broom and plaster the trunk and branches all over with the composition, particularly on the south-west side, by giving it a double coat; it will prevent the sun cracking the bark in winter: by this process the trees bear much better.

Aphorism VI.

An agricultural and horticultural farm should be established in every county, to impart and interchange the most improved sorts of grain, hay, and grass seeds, fruits, &c.; to point out to farmers the most successful method of improving the soil; to supply them with pure seed, and the most improved breed of farm stock and poultry, and the best implements of husbandry.

Aphorism VII.

It will be asked, who is to pay for all these improvements? The eight millions of poor rates are sufficient to accomplish all that I have proposed, by employing the poor, and making them useful members of society: and the surplus of provisions would be more than sufficient to pay them for their labour, and supply them with the best of food, and amply provide for the sick and aged. A rail-way from London to Edinburgh, and four cross roads from sea to sea, might be made with the money that has been collected by voluntary contributions, and the poor rates for the past

thirty years, besides providing for the indigent poor throughout the kingdom,—seven years' poor rates thus employed, would relieve the burden of the nation to a great extent, by finding useful labour to able-bodied paupers, independent of relieving the community from much bodily suffering.

Aphorism VIII.

A meeting of the inhabitants should be called by the Lord Mayor, to take into consideration the best plan to prevent diseased butcher-meat, or other adulterated food, being sold in the city, which has proved so destructive to the health and lives of a great mass of the people. A petition ought to be sent to the King, and to both Houses of Parliament, to enact a law, that no man shall injure his neighbour's property, endanger his health, or destroy his life (the neglected state of our agriculture and horticulture having done so to a fearful extent); and which can be proved to a demonstration; that inspectors be appointed to warn all persons to destroy every poisonous weed calculated to injure the health of the people, or his neighbour's property, by allowing the seeds of such plants to be blown over his land.

Aphorism IX.

In conclusion, I do most earnestly appeal to all the inhabitants of this kingdom that are afflicted with scrofula, cancer, consumption, tic doloureux, nervous complaints, leprosy, and many other disorders hitherto deemed incurable, that they may use their utmost endeavours to have the above salutary regulations carried into effect. And may those who are now beyond hope of cure, protest against that cruel neglect which is bringing them to a premature death. And to those who may yet expect a cure, I would say, that no relief can be obtained while you are using such pernicious food. It is with the best intention I have composed these aphorisms and this work. My practical experience in agriculture and horticulture, has been most extensive; and to my success in the healing art, the numerous

letters and reports of medical men, both in England and America, bear ample testimony. The professed object of this treatise, is to lessen the bulk of human suffering; and, under the blessing of God, I commit it into the hands of the Public: for their welfare I have ventured abroad in a cause so obsolete, and in an age so fruitful in trifles and splendid absurdities; for I can hardly believe that reason and common sense have entirely ceased to sway the minds of men.

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CHAPTER I.

INTRODUCTORY OBSERVATIONS.

My object in this work is, to call the attention of the inhabitants of Great Britain to the various calamities which are rolling on, in the midst of them, with accumulating force. I mean those calamities, which not only consist of many loathsome and deep-rooted diseases; but others, which flow from them as an inexhaustible fountain of the most complicated misery.

My only apology in presenting myself before the public in this form, is, a desire to promote the welfare of my species,—to arrest the progress of disease,—and to point out those salutary means by which it may be alleviated and removed.

As the prosperity of a nation so immediately depends upon the health and vigour of the community at large, it is matter of painful surprise to me, that a subject of such vital importance should have been so long overlooked by the rulers of this empire. The plain details of the following chapters will prove, that they have acted physically, morally and politically wrong. With all the boasted privileges enjoyed in these lands, certain long-confirmed errors prevail to a great extent; and we shall shew that they originate in a physical source.

Among civilized nations in all ages, there can be no doubt, that nothing has tended so much to injure and destroy the happiness of man, as *ignorance of the laws of nature in connection with the vegetable kingdom.* Having had frequent opportunities of mingling with the Indian tribes of America, I was much amazed on witnessing their correct knowledge of the medicinal properties of plants, and with what facility they employed this mighty engine in effectually curing diseases which, in this highly civilized country, have hitherto defied the skill of the most learned and eminent practitioners.

It is an affecting truth, that the men of this generation, notwithstanding their claims to great scientific acquirements,

are more ignorant of the specific qualities and effects of the natural productions of the earth, than the wild animals who rove at pleasure on the surface of the globe. These irrational creatures carefully select such food as is agreeable to their nature, and refuse every thing destructive of life: while man, illuminated by reason, and destined to immortality, heedlessly partakes of the most noxious substances, which generate multitudes of the most appalling diseases, hasten dissolution, and bring on premature death.

Another cause which contributes so large a share to the mass of prevailing misery, is, the doctrine of *expediency* and self-love. It is evident to the reflecting mind, that these two form a tremendous vortex which swallows the greater portion of the human race!

The lamented and deep-rooted errors to which we have referred, probably never prevailed to such a frightful extent as at the present time. This cannot fail to be highly displeasing to the benevolent Author of our being, who has put within our reach such sources of happiness, and such means of relief:—at the same time, the most pernicious effects are produced upon the bodies and souls of men! Let the humane patriot cast his eyes around, and he will instantly see these painful assertions demonstrated by the prevailing disease and misery of both mind and body.

As far as the limits of these pages will admit, I shall endeavour to point out, I trust, to the *conviction* of my readers, the stumbling-block which lies in the way of the happiness of a great proportion of the subjects of this kingdom, and the method by which it may be removed:—it is of little importance to shew the evil, without pointing out the remedy.

This little and humble production is chiefly intended for those who may not find it convenient to purchase my larger work, entitled "Whitlaw's New Medical Discoveries." It is hoped the reader will excuse the allusion to that work. The substance of its contents are subjoined, for the information of such as may feel disposed to give that production a place in their *domestic library*.*

* In Vol. I. of the *New Medical Discoveries*, the causes, effects, and the best method for curing the most inveterate diseases, are treated of at large: a defence is given of the Linnæan doctrines; the properties of food, with its effects on the human body, are clearly described; an alphabetical arrangement of diseases, and their principal predisposing causes, is presented, with a new nomenclature of diseases, naming them after their principal exciting causes, in order that mankind may more readily guard against them: also a mode of *cooking* for the sick; and a description of the virtues of the simple and compound medicines

In this treatise, I shall *particularly* expose the various and fallacious opinions of medical men in all ages, respecting FEVER. For three thousand years they have stumbled upon this subject; and those of the *present* day cannot refrain from acknowledging their ignorance of the causes of this evil, which, like a besom of destruction, sweeps untold millions into an untimely grave! Having exposed their false theories, the causes of this dreadful scourge will be described: and we shall then lay down those means which Divine Providence has so graciously put within our reach,—means by which FEVER, in the first instance, may be prevented; and in the second, when it has seized its suffering victim, how it may be compelled to abandon its grasp.

To render the work both plain and useful to the reader, an explanation of words considered *technical and hard*, will be given in the notes.

CHAPTER II.

The various and false opinions of eminent medical men, respecting FEVER, *from the days of Hippocrates to the present times.*

WE are struck with astonishment when we think of the incalculable multitudes of the human race destroyed by fever. So much were the polished and civilized Romans overawed with this calamity, which exercised such extensive and despotic sway, that they considered *fever* one of the divinities, and erected temples to do it homage, and avert its ire. Fever had one temple on Mount Palatine, and also in two other parts of Imperial Rome. There is still extant an inscription to this goddess.*

It is truly lamentable that so much ignorance should prevail for three thousand years concerning this desolating malady, by which it is believed one half of mankind are destroyed. From the time of Hippocrates and his followers, down to the days of Linnæus, almost all the writers on fever have substituted the *effect* for the *cause*. In this manner they have completely bewildered the minds of men on a subject of such vital importance to themselves and succeeding generations. Thus the contaminating stream has been permitted, with scarcely any interruption, to roll on for thousands of years, along the track of ages. Its polluted and deadly waters have rendered countless numbers of our species a bloated mass of rank unwieldy woe. Who can think of such misery inflicted on his species, without feeling the risings of compassion and grief? When a powerful and cruel army threatens to invade a nation, and spread abroad desolation in its cities and provinces, the first enquiry is, Can no means be employed to prevent its approach? If it enters the kingdom, and commences the work of rapine, cruelty and death, then it is seriously deliberated, How is the foe to be expelled? No armies of the Ptolemies, the Cæsars, the Phillips, or the Alexanders, could ever be compared with FEVER—this sweeping and hitherto irresistible

* Febri. Divæ. Febri. Sanctæ. Febri. Magnæ. Camillæ. Amata. Pro. Filio. Male. Affecto.

desolation! What! has Providence placed no means within the reach of man to stop its course? Yes: Providence has. These means are among the secrets of the vegetable kingdom. *That* is the casket which contains the jewel more precious than the diadems of princes. How is the key of this casket to be obtained?—It is by the careful study of the laws of nature. The student of these laws shall find the key, and obtain the jewel:—before whose touch, loathsome and appalling disease shall disappear, like the shades of night before the splendour of the rising sun.

I shall now furnish my readers with the sentiments of some eminent physicians respecting Fever:—men whose names are embalmed in the deserved admiration of posterity.

Opinions respecting Fever.

Hippocrates.*

Beholding a violent commotion in the system, followed by an evacuation from the skin and kidneys, with which the paroxysm terminated, he ascribed the commotion to a fermentation, concoction or ebullition, by which the noxious matter was separated from the sound humours. He ascribed the evacuation to a despumatum, or scum, which such separation produced; or rather to the discharge of this morbid scum from the emunctories that open externally.

Galen.†

Galen supported the same view of fever entertained by Hippocrates: indeed, this is the only explanation of fever to be met with for the long period of three thousand years. The same sentiments continued till the time of Sydenham, a physician of great eminence, who flourished in the reign of Charles I., and whose works are held in great estimation to the present day. The opinions of Hippocrates and Galen are preserved in the writings of Sydenham, which are full of the language to which such an opinion gave birth.

* Hippocrates, the greatest physician of antiquity, was born in the Island of Cos, in the 80th Olympiad, and flourished in the time of the Peloponessian war. He practised physic over all Greece. Kings and princes solicited the benefit of his skill. He died at the age of nearly one hundred years.

† Galen was the prince of the Greek physicians after Hippocrates. He was born in Pergamos, in Lesser Asia, about the year 131. His cures were so astonishing, that he was accused of magic.

LINNÆUS.*

When science was in a state of comparative chaos, God was pleased, in mercy, to bless mankind with LINNÆUS; who, like a glorious intellectual sun, has shed the most astonishing light upon the works of God, in the natural, physical and moral world. This humble, indefatigable and extraordinary philosopher, has certainly done more to enlighten mankind, than any that have flourished before him for several thousand years.

The Linnæan principles of physic suppose the human body to consist of a *cerebrose*,† *medullary*‡ part, of which the nerves are so many processes (and which is commonly called the nervous system), and a *cortical*§ part, including the vascular system;‖ the former being the animated part, —or that in which the sentient moving principle peculiarly resides,—is considered as deriving its nourishment from the subtlest fluids of the vascular system, and its energy from an electrical principle inhaled by the lungs.

Farther, he supposes the circulating fluids to be capable of being vitiated by substances which he considers either as acescent,¶ or as putrid ferments:—the former acting on the serum,** and being the exciting cause of critical fevers; and the latter acting on the crassamentum,†† and exciting phlogistic diseases.‡‡

The exanthematic class§§ are supposed to be excited by some external causes, which medical men call contagion, and which he pronounces to be animalcula.

From the incessant attrition‖‖ of the cortical or vascular system, it requires perpetual reparation: this is to be effected by an appropriate diet.

* Linnæus was born in Sweden, in the year 1707. Such was his early proficiency in botany, that he was appointed, at the age of twenty-three, to deliver lectures on that most lovely and useful science in the botanical garden at Upsal. His system of botany is unrivalled, and none ever equalled him in his knowledge of nature. He expired in 1778.

† *Cerebrose*—belonging to the brain.

‡ *Medullary*—like unto marrow.

§ *Cortical*—surrounding the body, like the bark of a tree.

‖ *Vascular system*—system of vessels, or the arteries and veins, with the whole mesh-work of the human body.

¶ *Acescent*—that which has a tendency to sourness.

** *Serum*—the yellow and greenish fluid, which separates from the blood when it is at rest.

†† *Crassamentum*—the thick part of the blood.

‡‡ *Phlogistic diseases*—inflammatory diseases.

§§ *Exanthematic class*—diseases given to eruptions.

‖‖ *Attrition*—rubbing.

From an impropriate diet or regimen originate most of the diseases of this part of the system; and these are to be remedied by sapid or bitter medicines,* as those of the medullary system are by olids,† or strong smelling. Hence arises our author's general division of all medicines according as their sensible qualities are discoverable to the taste or smell. The sapida or bitter, according to his theory, act particularly on the cortical part, as the olida do on the medullary or nervous system. He seems to have had some peculiar ideas with respect to number, both as to the divisions into which he supposed these two grand classes of medicines naturally to resolve themselves, and as to the diseases which they appeared to him calculated to cure. It was his opinion, that nature acts "numero quinaro,"‡ as he informs in his "Diary."

Dr. Mason Good.§

I shall now give some lengthened extracts from Mason Good's Study of Medicine;—a work wherein may be observed more of the erroneous views of medical men for the past three thousand years, than in any other work extant. As it is chiefly read by medical men, it is not probable they will confess their own errors; therefore the extracts are considered the more necessary. The symptoms of fever, as described by Dr. Mason Good, are—

Heat and number of the pulse preternaturally augmented; usually preceded by rigor, and followed by perspiration: during the rigor, pains fixed or wandering: lassitude: debility of mind, and voluntary muscles.

There is no complaint so common as fever; none in which mankind, whether professional or laical, are so little likely to be mistaken:—and yet none so difficult to be defined. In reality, no writer seems to have been fully

* *Sapid*—bitter. † *Olids*—smells.

‡ *Numero quinaro*—a fifth number.

§ I am indebted to Dr. Mason Good's "Study of Medicine," in four volumes, for the following correct epitome of the various theories of Fever.—A work which is acknowledged to be the most impartial, and the most profound that has ever issued from the press. It may be considered as the greatest addition to medical literature:—of this work it may be said, in the same beautiful language which the author has applied to Dr. Cullen, "His work is like himself,—a work of no ordinary stamp: it is full of immortality, but mixed up with weak and perishable materials."

satisfied with his own definition; and it is not extraordinary, therefore, that he should seldom have given satisfaction to others.

In fever, we can often trace the remote causes; though we are still too little acquainted with the nature of several of them to be able to restrict them to a specific mode of action. Of the proximate cause, we know but very little at present, and it will probably be long before we shall know much more.

Let us, however, begin with the *proximate cause*, as that which has most excited the attention of physicians in all ages. Upon this subject, indeed, a great deal of learned dust has been raised, and a great deal of valuable time consumed. Ancient speculations,—for they are not entitled to the name of theories,—have been overthrown, and modern speculations, in vast abundance, erected upon their ruins; which, in rapid succession, have also had their day and expired. It is an inquiry, therefore, not likely to prove very productive; yet, as forming a part of medical science of which no student should be altogether ignorant, it seems necessary to extend it to a brief survey of the most popular doctrines which have been advanced upon the subject, in different ages.

Fevers then, in respect to their proximate cause, have been conjectured to originate from a morbid* change, either in the composition of the blood, or in the tone or power of the living fibre. The first view has given rise to various hypotheses, that rank under the common division of the *humoral pathology*.† The second has given rise to other hypotheses, appertaining to the common division of the *fibrous* or *nervous pathology*.

The hypotheses derived from the one or the other of these sources, that are chiefly entitled to attention, are the following: of which the first two belong to the former division, and the remainder to the latter.

I. That of the Greek schools, founded on the doctrine of a concoction and critical evacuation of morbific matter.‡

II. That of Boerhaave, founded on the doctrine of a peculiar viscosity,§ or lentor‖ of the blood.

III. That of Stahl, Hoffman and Cullen, founded on the doctrine of a spasm on the extremities of the solidum vivum or living fibre.

* *Morbid*—diseased. † *Pathology*—the doctrine of diseases.
‡ *Morbific matter*—matter causing disease.
§ *Viscosity*—sticking quality.
‖ *Lentor*—the sticking quality of any fluid.

IV. That of Brown and Darwin, founded on the doctrine of accumulated and exhausted excitability, or sensorial power.

V. To which we may add, that fevers have by some physiologists, as Dr. Clutterbuck and Professor Marcus, been identified with inflammation; and their proximate cause been ascribed to increased action in some particular organ.

I. It was the opinion of Hippocrates, of Galen, and indeed of all medical writers till the time of Sydenham, that fever is an effort of nature to expel something hurtful from the body, either impregnated, or introduced from without. (*See page* 5.)

It blended itself almost insensibly with the language of the chemists of the day, notwithstanding the professed hatred of Paracelsus and Van Helmont towards the whole range of Galenic doctrines, and the solemn pomp with which the former had condemned, and burnt the entire works of Hippocrates and Galen.

And hence, under the influence of chemistry, at this time assuming a soberer aspect, the supposed animal despumation was contemplated as possessed, according to different circumstances, of different chemical qualities and characters, and particularly as being acid, alkaline, effervescent, or charged with some other acrimonious principle, too highly exalted, or in too great a proportion.

This doctrine, considered merely hypothetically, is not only innocent, but highly ingenious and plausible. It is in unison with several of the phænomena of pyrectic diseases*; and derives a strong collateral support from the general history of exanthems or eruptive fevers, in which we actually see a peccant matter,† producing general commotion, multiplying itself as a ferment, and at length separated and thrown off at the surface by a direct depuration of the system.

So far, therefore, as relates to exanthems, the opinion is sufficiently correct. But the moment it is brought forward as the proximate cause of fever, properly so called, in which there is no specific eruption, it completely fails. For first, no explanation is here given as to the means by which any such concoction or fermentation, or multiplication of morbific matter in any way takes place. Next, there are many fevers produced evidently by cold, fear, and other excitements, as well mental as corporeal, in which most certainly there is no morbific matter introduced, and wherein we have no reason

* *Pyrectic diseases*—diseases belonging to fevers.

† *Peccant matter*—hurtful matter.

to conceive there is any generated internally; while the disease, limited perhaps to a single paroxysm, closes nevertheless with an evacuation from the skin or kidneys. And, thirdly, we sometimes behold fevers suddenly cured, as Dr. Cullen has observed, by a hæmorrhage* so moderate, as for example a few drops of blood from the nose, as to be incapable of carrying out any considerable portion of a matter diffused over the whole mass of the blood; while we are equally incapable of conceiving how such diffused morbid matter could collect itself at a focal point, or pass off at a single outlet; or of tracing in the discharge, after the minutest examination, any properties different from those of blood in a state of full health.

I have observed that this hypothesis is, however, harmless enough when merely brought forward as a speculation; but it has not always been limited to this point, for it has occasionally been advanced as a practical and efficient principle; and the febrile commotion,† and particularly the hot fit, has, in treating the disease, been purposely increased, with a view of assisting nature in her curious but unknown process of expelling the peccant material; and the most dangerous consequences have followed.

II. The acute and penetrating mind of Boerhaave, who was born in 1668, was sufficiently sensible of this danger; and the discoveries which were now taking place in chemistry and physiology, led him progressively to the construction of a new theory; which, in a few years, became so popular, as to obtain a complete triumph over that of the Greek Schools.

Leeuwenhoeck, by a delicate and indefatigable application of the microscope to animals of a transparent skin, had endeavoured to establish it as a fact, that the constituent principles of the blood consist of globular corpuscles;‡ but that those corpuscles differ in size in a regular descending series, according to the constituent principles themselves; and that each set of principles has its peculiar blood-vessels, possessing a diameter just large enough to admit the globules that belong to it, and consequently incapable, without force, of allowing an entrance of those of a larger magnitude; and hence that the blood-vessels possess a descending series as well as the particles of the blood.

It was upon this supposed fact, that Boerhaave§ built his

* *Hæmorrhage*—a flowing of blood.

† *Febrile commotion*—feverish commotion.

‡ *Corpuscle*—a small body, or atom.

§ Herman Boerhaave, one of the greatest physicians, as well as the

hypothesis. He conceived, that almost all diseases may be resolved into an introduction of any given series of particles of blood into a series of vessels to which they do not properly belong: and he distinguished such introduction by the name of *error loci.** He conceived still farther, that this heterogeneous admixture is very frequently taking place; and that its chief cause consists in a disproportion of one or more sets of the sanguineous principles† to the rest, by which their globular form is occasionally broken down and destroyed, and rendered either too thin and serous,‡ or too gross and viscid.§ The viscidity of the blood he distinguished by the name of *lentor;* and to a prevalence of this lentor, or viscidity, he ascribed the existence of fever; maintaining that the general disturbance which constitutes fever, proceeds from an *error loci* of the viscid blood, whose grosser corpuscles, from their undue momentum‖ as well as superabundance, press forcibly into improper series of vessels, and stagnate in the extremities of the capillaries;¶ whence the origin of the cold stage, and consequently of the stages that succeed it to which the cold stage gives rise; and hence those medicines which were supposed capable of dissolving that tenacity, or breaking down the coalescence of such a state of the blood, were denominated *diluents,*** *humectants,*†† and *attenuants,*‡‡ whilst those of an opposite character were called *inspissants:*§§—terms which have descended to our own day, and are still retained even by those who pay little attention to the hypothesis that gave them birth.

The system of Boerhaave, therefore, consisted of an elegant and artful combination of both the earlier and later

best of men, that this or perhaps any age has ever produced, was born 1668, in Holland, near Leyden. The excellency of the Christian religion was frequently the subject of his conversation. All the princes of Europe sent him disciples to the university of Leyden. Peter the Great attended his lectures. He always called the poor his *best patients;* "for God," said he "is their paymaster."—He died in the 70th year of his age.

* *Error loci*—the error of the place.

† *Sanguineous principles*—of a bloody quality.

‡ *Serous*—thin, watery.

§ *Viscid*—glutinous, or sticking.

‖ *Momentum*—an impulse.

¶ *Capillaries*—the small ramifications of the arteries.

** *Diluents*—substances which increase the proportion of fluid in the blood.

†† *Humectants*—moistening medicines.

‡‡ *Attenuant*—that which thins.

§§ *Inspissant*—that which thickens.

doctrines of corpuscular physiology.* Without deserting the humoral temperaments of Galen, or the constituent elements and elective attractions of the alchemists,† he availed himself of the favourite notions of the corpuscular pathologists; their points or stimuli, their frictions, angles, and spherules,‡ derived from the Cartesian philosophy,§ which were now exercising as triumphant a sway over the animal as over the material system; and interwove the whole into an eclectic scheme so plausible and conciliatory to all parties, that all parties insensibly felt themselves at home upon it, and adopted it with a ready assent. In the emphatic language of Mr. Quesnay, it was '*la medicine collective.*'

The most triumphant fact in favour of the Boerhaavian hypothesis is, that the crust on the blood in inflammations, and cauma or inflammatory fever, is often found peculiarly dense. But as fevers (and certainly the greater number of them) are found without any such crust; and as a similar crust, though perhaps not quite so dense, exists under other and very different states of body, as in pregnancy and scurvy (porphyra), even this leading appeal has long lost its power of conviction: whilst the abruptness with which fevers make their assault, from sudden occasional causes, and in constitutions of every diversity, forbid the supposition, that in such cases a lentor or sizy crasis‖ of the blood, and especially a glutinosum *spontaneum*,¶ can have time to be produced; however, it may exist occasionally, and be perhaps the source of other disorders.

III. Stahl, who was contemporary with Boerhaave, and in the University of Halle, in 1694, first started a loftier and more luminous idea,—more luminous, though the light was still struggling with darkness; made the mind the controlling principle, and the solidum vivum, or nervous system, the means by which it acted. Fever, on his hypothesis, consisted in a constrictive or *tonic spasm*, in his own language, *spasmus tonicus*, produced by a torpor or inertness of the brain, at the extremity of the nerves, and counteracted by the remedial exertions of the mind, the *vires medica-*

* *Physiology*—the doctrine of the constitution of nature.

† *Alchemists*—they who studied the mystical art of changing metals into gold.

‡ *Spherules*—little globes.

§ *Cartesian philosophy*—philosophy founded on the opinions of the celebrated Des-Cartes.

‖ *Crasis*—literally, the humours of the body in a healthy state.

¶ *Glutinosum spontaneum*—spontaneous thickening.

*trices** of his hypothesis, labouring to throw off the assailing power; whence the general struggle and commotion by which the febrile paroxysm is characterized. Hoffman, who was a colleague of Stahl, took advantage of this new view; followed up the crude and primary ideas of Stahl with much patient and laborious investigation; and soon presented to the world, a more correct system in a more attractive style: but, apparently, with a disingenuous concealment of the source from which he had borrowed his first hints. He omitted the metaphysical part of the Stahlian hypothesis, took from the mind the conservative and remedial power over the different organs with which Stahl had so absurdly endowed it; seated this power, as a law of life, in the general organization; separated the nervous from the muscular fibres, the latter of which were regarded as only the extremities of the former by Stahl; allowed a wider range and longer term to the constrictive spasm of fever; and changed its name from *spasmus tonicus*,† to *spasmus peripheric us*;‡ giving also to the moving power of the muscular, or irritable fibres the name of *vis insita*,§ as that of the nervous fibre was called *vis nervea*.‖

It is highly to the credit of Boerhaave, that his mind, in the latter part of his life, was so fully open to the merits of this hypothesis, that he admitted the agency of the nervous power, though a doctrine that struck at the root of his own system; of which we have a clear proof in the change which occurs in the fourth edition of his Aphorisms, and particularly aphorism 755, where he lays down the proximate cause of intermittent fevers. Hitherto it had run thus:—"unde post accuratum examen totius historiæ intermittentium causa proxima constituitur viscositas liquidi arteriosi."¶ But to this, in the edition before us, is added the following:—"forte et nervosi (liquidi) tam cerebri, quam cerebelli cordi destinati, inertia."**

* *Vires medicatrices*—those powers in living bodies by which, when diseased, thay can recover their healthy actions.

† *Spasmus tonicus*—tonic spasm.

‡ *Spasmus peripheric us*—spasm belonging to the circumference of the body.

§ *Vis insita*—the power of planting, or ingrafting, or introducing.

‖ *Vis nervea*—the power of the muscles, by which they act when excited by the nerves.

¶ Whence, after the most careful examination of the whole history of intermittent fevers, the proximate cause is determined to be the viscidity of the arterial liquid.

** And perhaps the inactivity of the nervous liquid, both of the cerebrum and cerebellum, which is destined for the heart.

It is also equally creditable to the learned Gaubius, that, though strongly attached to the Boerhaavian school in which he was educated, and a zealous contender for many of its doctrines, his understanding was alike open to the clearer and simpler views of the chemists of the day, upon various points not generally adopted, and allowed him to become a more thorough convert to their philosophy. The reader may judge of this change in his mind by the following passage :—"An et naturæ humanæ facultas inest, moleculas, acris detritas aut intropessas angulis, in sphærulas tornando, blanditium creandi? Non satis constat speciosam ideam æqualiter in fluidam solidamque acrimoniam quadrare.—Credibilius profecto mixtione chemica magis quam mechanica rotundatione, id opus perfici."*

In effect, there not only was at this time, but had been for many years antecedently, a general feeling among the cultivators of medicine, that neither the laws of animal chemistry nor of the living fibre had been sufficiently studied for the purposes of a correct pathology: in proof of which, it may be sufficient to refer to various articles on both subjects, inserted in the Ephemerides Naturæ Curiosorum,† published at Frankfort, 1684; and still more particularly to Dr. Gilchrist's elaborate treatise on nervous fevers, inserted in the Edinburgh Medical Transactions; in which last, the author, following up the hint thrown out by Boerhaave in the aphorism just quoted, endeavours to shew how well the two ideas of lentor and spasm are disposed to almalgamate in forming the proximate cause of fever; the spasm consisting of an universal muscular tension, and the lentor being united according to the nature of the case, with inflammation, acrimony, or both: and hence often producing what he denominates an *alternate nisus*‡ and *re-nisus*.§

"The materials, however, were now becoming too unwieldy; and the wheels of the machine were clogged by the very forces that were designed to increase its motion.

* Whether it is an innate power of human nature, that molecules being worn out by acrid influence; or having fallen into angles, by being turned into spherules or small globes, a softness should be formed?

It is not sufficiently plain, that a *plausible opinion* is equally divided betwixt the fluid and the solid acrimony. It is certainly more credible that this work is accomplished more by a chemical mixture, than by a mechanical *turning round*.

† *Ephemerides*—diseases affected by the moon.

‡ *Alternate nisus*—alternate striving.

§ *Re-nisus*—repeated effort.

Dr. Cullen was well aware of this, and boldly ventured upon a new attempt for the purpose of simplifying and facilitating its progress. As his basis, he took the hypothesis of Stahl, as modified and improved by Hoffman; and on this basis he erected his stately and elaborate structure, so well known to the medical world, full of ingenuity and daring genius; and which, if it be at this moment crumbling into decay, certainly is not falling prostrate before any fabric of more substantial materials, or more elegant architecture. Dr Cullen has been accused of the same want of ingenuousness towards Hoffman, as Hoffman is chargeable with towards Stahl; and of having introduced his system to the public with little or no acknowledgment of the sources from which he has drawn. But surely no one can bring forward such an accusation who has read with any degree of attention the preface to his Practice of Physic, in which he gives a full account of Dr. Hoffman's system in his own words, and pays complete homage to his merits.

According to the more elaborate principles of the Cullenian system, the human body is a congeries of organs regulated by the laws not of inanimate matter, but of life, and superintended by a mobile and conservative power or energy, seated in the brain, but distinct from the mind or soul; acting *wisely*, but *necessarily*, for the general health; correcting deviations, and supplying defects, not from a knowledge and choice of the means, but by a pre-established relation between the changes produced, and the motions required for the restoration of health; and operating therefore, through the medium of the moving fibres, upon whose healthy or unhealthy state depends the health or unhealthiness of the general frame: which fibres he regarded, with Stahl, as simple nerves, the muscular filaments being nothing more than their extremities, and by no means possessed of an independent vis insita.

The brain, therefore, upon this hypothesis, is the primum mobile, but it closely associates in its action with the heart, the stomach, and the extreme vessels. The force of the heart gives extension to the arteries, and the growth of the body depends upon such extension in conjunction with the nutritious fluid furnished by the brain, and deposited by the nerves in the interstices of their own fibres; the matter of which fibres is a solid of a peculiar kind, whose parts are united by chemical attraction. All nervous power commences in the encephalon; it "consists in a motion beginning in the brain, and propagated from thence into the moving fibres, in which a contraction is to be produced."

"The power by which this motion is propagated, we name," says Dr. Cullen,* "the *energy* of the brain; and we therefore consider every modification of the motions produced as modifications of that energy." He further lays it down, as a law of economy, that the energy of the brain is alternately excited and collapsed, since every fibrous contraction is succeeded by a relaxation: whence spasms and convulsions are *motus abnormes*,† and consists in an irregularity of such alteration. But we must distinguish in this system between the energy of the brain and the vital fluid it sends forth by the nerves; for while the former rises and sinks alternatively, the latter remains permanently the same. It is not a secretion, but an inherent principle, never exhausted, and that never needs renewal.

This hypothesis, in its various ramifications, influenced every part of his theory of medicine, and, consequently, laid a foundation for his doctrine of fever. The proximate cause of fever was, in his opinion, a collapse or declination of the energy of the brain, produced by the application of certain sedative powers,‡ as contagion, miasma,§ cold, and fear, which constitute the remote causes. This diminished energy extends its influence over the whole system, and occasions an universal debility; but chiefly over the extreme vessels, on which it induces a spasm, and in this spasm the cold fit is supposed to consist.

"Such, however," to adopt the words of Dr. Cullen himself, "is the nature of the animal economy, that this debility proves an indirect stimulus to the sanguiferous system; whence by the intervention of the cold stage, and spasms connected with it, the action of the heart and larger arteries is increased, and continues so till it has had the effect of restoring the energy of the brain, of extending this energy to the extreme vessels, of restoring therefore their action, and thereby especially overcoming the spasm affecting them; upon the removing of which, the excretion of sweat, and other marks of the relaxation of the excretories take place."

* WILLIAM CULLEN was born at Lanark, in Scotland, in 1712. Some time he was Professor in the University of Glasgow, but was afterwards chosen to be Professor of Chemistry, in the University of Edinburgh. His eminent talents afterwards secured to him the medical chair, which he held til his death. His most celebrated work is his "Synopsis Nosologiæ Methodicæ." Having retained the vigour of his mental faculties to the last, he died aged 77 years.

† *Motus abnormes*—irregular motion.

‡ *Sedative*—composing, soothing.

§ *Miasma*—is a Greek word, denoting corruption.

This relaxed or perspiratory section of the paroxysm, however, is not regarded by Dr. Cullen as a part of the disease, but as the prelude to returning health; yet the fit still consists of three stages; the first of debility or diminished energy, the second of spasm, and the third of heat. And though Dr. Cullen had some doubts whether the remote causes of fever might not produce the spasm as well as the atony of the nervous system, yet he inclined to ascribe the second stage to the operation of the first, as he did most decidedly the third to that of the second; and thus to regard the whole as a regular series of actions, employed by the vis medicatrix, natural for the recovery of health.

That fever, in its commencement or earliest stage, is characterized by debility of the living fibre, or, in the words of Dr. Cullen, by diminished energy of the brain, extending directly or indirectly to the voluntary muscles and capillaries, cannot for a moment be doubted by any one who accurately watches its phænomena. And thus far the Cullenien hypothesis is unquestionably correct; as it appears to be also in supposing the cold stage to be the foundation of the hot, and of the secretion of sweat by which the hot stage is succeeded; but it fails in the two following important points, without noticing a few others of smaller consequence. The spasm on the minute vessels, produced by debility, takes the lead in the general assault; and though it forms only a link in the remedial process, is the most formidable enemy to be subdued; and hence all that follows in the paroxysm is an effort of the system to overcome this spasm. The effort at length proves successful: the debility yields to returning strength; the spasm is conquered, and the war should seem to be over. But this is not the fact; the war continues notwithstanding; there is nothing more than a hollow truce; debility and spasm take the field again, and other battles remain to be fought.—There is nothing in this hypothesis to account for a return of debility and spasm after they have been subdued; nor to shew why spasm should ever, in the first instance, be a result of debility. "In this system," says Dr. Parr, "the production of spasm by debility, is an isolated fact without a support; and the introduction of the *vires medicatrices naturæ*, is the interposition of a divinity in an epic, when no probable resource is at hand."

The next striking defect that must occur to the attentive reader is, that debility is here made a cause of strength; the weakened action of the first stage giving rise to the increased action and re-excited energy that restore the system to a

balance of health: and here again we stand in need of the interposition of some present divinity to accomplish such an effort by such means.

The celebrated Dr. Brown, of Edinburgh, began and established a doctrine opposed to that of Cullen. He considers man is made of organized materials, endowed with a principle of excitability or predisposition to excitement, by means of a great variety of stimuli;* some of which are constantly acting upon the machine. This excitability, in point of fact, is nothing more than the nervous energy of Dr. Cullen; it is the principle of life, or life itself. It is, according to Dr. Brown, constantly varying in its accumulation and exhaustion; yet it differs somewhat from the nervous energy of Dr. Cullen, which is influenced by something unconnected with the matter of organization, and which he terms "*vis medicatrix naturæ:*"† whereas Brown's excitabily is passively exposed to the effects of such stimuli as it may chance to meet with, yielding to their influence. He divided all diseases into two classes:—the first, caused by accumulated excitability, and marked by direct debility; to this class he gave the name of sthenic:‡ the second, produced by exhausted excitability, and marked by indirect debility; this he termed asthenic.§ And his treatment is as simple as the arrangement:—in the first case, to reduce the excitability by antiphlogistic means;‖ and in the second, to increase the excitability by an opposite treatment. Dr. Brown made many converts, but they soon began to fall off; and it is curious, that in proportion as they declined in numbers at home, they increased abroad, and are at this very moment, with some modifications, in considerable force in Italy. Dr. Darwin so far improved the Brunonion doctrines. He made the brain the common fountain from which every other organ is supplied with sensorial fluid, and is itself supplied from the blood, as the blood is from the food of the stomach; so that, according to his notion, it is a mere secretion, and capable of being exhausted in four different ways, through the agency of four separate faculties which he ascribes to it.

First. The faculty of irritability, exhausted by external stimuli affecting simple irritable fibres.

* *Stimuli*—that which incite or stirs up.
† *Vis medicatrix naturæ*—previously explained. (*See page* 13.)
‡ *Sthenic diseases*—those which have a tendency to inflammation.
§ *Asthenic diseases*—those which have not a tendency to inflammation.
‖ *Antiphlogistic*—that which is opposed to what is inflammable.

Second. Of sensibility, exhausted by stimuli affecting the fibres of the organs of sense.

Third. Of voluntarity, exhausted by stimuli affecting the fibres of those organs which act in obedience to the will.

Fourth, and lastly. Of associability, exhausted by stimuli affecting organs associated in their actions by sympathy or long habit.

By each of these means Darwin supposes the sensorial power becomes evacuated, as by food and rest it becomes replenished, often indeed with an accumulation or surplus stock of power. He therefore considers the occasional causes of fever (whatever they may be), as inducing a torpor of the extreme arteries; and the subsequent heat, as an inordinate action of the sensorial power hereby accumulated to excess.

Dr. Clutterbuck, a physician of great reputation, has most ingeniously attempted to prove, that fever depends upon some degree of inflammation of the brain; and in reviewing the merits of his system, it must be kept in view, that he practices in the greatest commercial city in the universe, —among a people whose minds, generally speaking, are more actively employed than their bodies,—who are exposed to intense anxieties, occasioned by extensive speculations and reverses of fortune,—who are either in a state of considerable excitement or depression: if we add to these considerations the effect of heavy meals and sedentary habits impeding the functions of the stomach and bowels, it will be seen, that he had considerable foundation for the opinions he has been led to advance. But I object to the arbitrary application of his doctrines.

Broussais, to whom the profession also stands greatly indebted, and whose merits, like those of many others, have been more justly estimated abroad than at home, asserts, that all fevers may be referred to *gastro-enteritis*,* simple or complicated; and there can be no doubt as to the correctness of his views. The alimentary canal is the original seat of the disturbance, in a great majority of cases, of fever; and in fact, in cases that run through their progress and terminate fatally, diseased appearances of a very marked kind are commonly found in the stomach and intestines: nor have I yet seen a single case examined after death where such appearances were not exhibited, and alone sufficient to account for the death of the patient. It is easy, therefore, to account for the doctrines of Broussais, and for the

* *Gastro-enteritis*—inflammation in the stomach.

tone in which he supports them; and I allow him every merit and commendation which is so justly his due.

It is now necessary to treat of the effect produced by certain circumstances on the human body, as causes of fever: these are marsh miasm,* contagion from human effluvia, and epidemic influence. These causes, together with cold, fear, etc., are called in medical language remote; but I shall continue to employ the terms common and specific.

No one who has attended to this subject can deny the influence of contagion and marsh miasm on the human body; but I conceive that too much has been attributed to them, and too little to the state of the constitution previous to seizure, and also by far too little to the common causes of fever. Dr. Gregory used to assert, that contagion might lie frozen for any length of time, and resume its virulence upon being thawed. There are other interesting facts which are not sufficiently attended to in considering this subject. It is my belief, that contagion will not produce fever if applied a thousand times to a person, if he is in a good state of body and mind. Dr. Gregory used to state, that he must have been exposed to the influence of contagion some twenty or thirty thousand times without affecting him once. The contagion of fever to produce its effects, must be applied to a person ill fed and clothed, or to one whose stomach and bowels are in very bad order, or who is labouring under the effects of some mental depression.

"A fever, therefore," to adopt the language of Dr. Fordyce, "is a disease that affects the whole system; it affects the head, the trunk of the body, and the extremities; it affects the circulation, the absorption, and the nervous system; it affects the body, and affects likewise the mind. It is, therefore, a disease of the whole system, in every kind of sense. It does not, however, affect the various parts of the system uniformly and equally; but, on the contrary, sometimes one part is much affected in proportion to the affection of another part."

The result of the whole, as observed at the outset of this introduction, is, that we know little or nothing of the proximate cause of fever, or the means by which its phænomena are immediately produced. In the language of Lieutaud, applied to the subject before us, they are too often "*atra caligine mersæ;*"† nor have any of the systems hitherto invented to explain this recondite enquiry, however ingenious

* *Marsh miasm*—corrupt vapour rising from marshy ground.

† *Atra caligine mersæ*—sunk in impenetrable darkness.

or elaborate, answered the purpose for which they were contrived.

The *febrile miasm*,* then, generated by a decomposition of human effluvium and of dead organized matter, appears to be essentially the same; modified alone in one or two of its qualities by the co-operation of the heat, moisture, stagnant atmosphere, and perhaps some other unknown agents that are necessary to give it birth or activity. The chief difference produced in this miasm under these distinct modes of origin, is, that when generated by the decomposition of effluvium issuing from living human bodies, it is less volatile; and has at the same time a power more directly exhausting or debilitating the sensorial energy, than when generated by the decomposition of dead organized matter. Whence fevers originating in jails, or other confined and crowded scenes, contaminate the atmosphere to a less distance than those from marshes or other swamps, but act with a greater degree of depression on the nervous system when once received into it.

In whatever mode derived, the remark of my excellent and distinguished friend, Dr. Hosack, will still hold—not, indeed, that it is altogether incapable of taking effect in a pure atmosphere, but, that "an impure atmosphere is indispensably necessary to extend the specific poison." And I should also fully concur with him in censuring the application of the term epidemic to any of the febrile diseases hereby produced; provided this epithet were usually confined, which I am not aware of, to disorders supposed to result from some primary intemperament of the atmosphere itself. Why a corrupt state of the atmosphere should be necessary to the general action of the febrile miasm, is a question which still remains to be discussed. Dr. Hosack supposes, that the latter "produces its effects by some chemical combination with the peculiar *virus*; however, he has not given us any information: while Dr. Chisholm conceives, that it is the impurity of the atmosphere itself, which operates by "increasing the susceptibility of the system to the action of the poison introduced." But to this explanation Dr. Hosack successfully rejoins, "that the predisposition of those who are most exposed to such impure air is less, while those who reside in the pure air of the country are most liable to be infected when exposed to the contagion."—This closes the extracts from Dr. Mason Good's invaluable work.

* *Febrile miasm*—the corrupting principle of fevers.

CHAPTER III.

Continuation of the Opinions of Modern Medical Men respecting Fever, mingled with Observations on their theories.

Dr. Smith, of the London FeverHospital, in his work on Fever, observes, "All the partial and imperfect views of fever which have now been brought before the eye of the reader, originate in one or other of the following errors, obvious as they are:—Either that of assuming as a fact what is merely a conjecture; or that of assigning to the genus what belongs only to the species; or that of characterizing the disease by what appertains only to a stage; or that of mistaking the effect for the cause. One or other of these errors, which are as serious as they are palpable, has vitiated in a greater or less degree every generalization of fever that has hitherto been attempted. Whatever be the phenomena of fever, they depend upon certain states of the organs. Whatever be the noxious agents, or the exciting causes of the disease, and however they operate, they can induce the disease only by bringing about a certain condition in a certain number of organs, the individual events constituting the disease being nothing but certain changes in these organs.

"It is therefore of paramount importance to ascertain what the organs are which are implicated; what the conditions are which are induced in them; what organ sustains the first assault, and what organs are attacked in succession. The pathology about to be laid before the reader will demonstrate the first two points; the establishment of the last two will be attempted by an examination of the history of the causes.

"Without doubt, before it is possible to succeed in any scientific investigation, it is necessary to form a distinct conception of the object of enquiry. Fever is not an *entity*, not a being possessing a peculiar nature; and the object of investigating it, is not to discover in what such nature consists, or what it is that constitutes its essence: but fever is a series of events, and the object of enquiry is to discover

what the events are that invariably concur in the series, and in what order they constantly succeed each other. When we have discovered this, we have ascertained all that we can ever know of what is termed *the nature of fever;* as it is this, and only this, that we can ever know of any object or process."

Dr. Smith will pardon us for saying, that this entire passage is rank nonsense. What disease does not consist of a "series of events?" Those "events," of course, constitute the legitimate object of enquiry in every instance of disease. Fever, in reality, is as much an *entity* as any other malady; but from its peculiar nature, physicians have failed to discover it, and consequently to describe it: at least, it has been of such chameleon character, that the hues, from the suddenness of their changes, have been repeatedly confounded;—the shadow has been mistaken for the substance, and effects for causes.

I shall conclude by giving a few extracts from "Practical Strictures on Puerperal Fever; by John Alexander, M.D., of Manchester."

"Puerperal fever,* has been known from the earliest times, certainly from those of Hippocrates; but it was not described under that name until the year 1718, when Dr. Strother gave it that title, in an essay published upon the subject.

"Hippocrates considered the malady to be dependant upon a suppression of the *lochia*,†—an opinion which prevailed for several centuries undisputed. In later times, it has successively been attributed to a vitiated state of the humours; to a loaded condition of the alimentary canal;‡ or to abdominal congestion,§ from the sudden removal of pressure. Some writers have affirmed the disease to be essentially an inflammation of the intestines, aggravated by fæcal accumulation.‖ A few have written to prove it an inflammation of the uterus;¶ others of the ovaria;** many of the peritoneum:†† some to establish the doctrine of its

* *Puerperal fever*—fever connected with child-bearing.

† *Lochia*—natural cleansings in women after delivery.

‡ *Alimentary canal*—the whole of the entrails through which the food passes.

§ *Abdominal congestion*—collection of blood or other fluid in the belly.

‖ *Fæcal accumulation*—an accumulation of the excretions of food in the intestines.

¶ *Uterus*—the womb.

** *Ovaria*—two flat oval bodies, necessary for the purposes of generation, behind the uterus.

†† *Peritoneum*—a strong membrane enclosing the bowels.

being a general affection of the abdominal viscera;* others to shew that it is common fever, accompanied by peritoneal inflammation: and not a few have declined giving a specific opinion as to the seat of the disease.

"So much for the theory of the complaint; now let us refer for directions as to our treatment. The deservedly esteemed Mr. Hay, Dr. Gorden, and many other eminent practitioners, considering puerperal fever an inflammatory affection, powerfully recommend the early use of the lancet, succeeded by the administration of drastic purgatives,† such as calomel and jalap, in large and repeated doses.

"Dr. Walsh, and Mr. Whyte, have written strongly against the abstraction of blood; the treatment they approve of consists in the administration of emetics (of which it appears M. Doulcet, formerly abstetrician to the Hotel-Dieu,‡ thought most highly), gentle laxatives and diaphoretics,§ followed by cordials, with the application of fomentations and sinapisms.‖

"Drs. Hull, Denman, and Leak (the two first of whom, from their practical and scientific attainments, constitute a host in themselves), recommend a combination, or modified application, of the above treatments.

"A fourth class, with Dr. John Clarke, and I believe Hamilton and Richmond for their sanction, deprecate blood-letting, and advocate the Brunonian method of combating this disease.

"Again; Dr. Farre, and Dr. Armstrong, whose opinions are in high respect, seem (the former by analogical reasoning upon *irritis*),¶ to think highly of mercurialising the system in this complaint; a plan, however, which Dr. Blundell, in his valuables lectures, states himself to have adopted without apparent benefit.

"Lastly; there are many who, with Brenan of Dublin, think the counter-irritant method of treatment the most judicious;—that gentleman having recommended the external application and the internal use of the oil of turpentine.

"In the above very brief epitome, we have abundant evidence of the indefinite state of opinion prevailing amongst

* *Abdominal viscera*—the bowels.
† *Drastic purgatives*—purgatives violent in their operations.
‡ *Hotel-Dieu*—a celebrated hospital for the sick in Paris.
§ *Diaphoretics*—substances taken internally, which increase the discharge from the skin.
‖ *Sinapisms*—mustard poultices.
¶ *Irritis*—that which irritates.

the profession, as to the nature and treatment of puerperal fever. That so many highly gifted individuals should have directed their attention to the same subject, and come to such discordant conclusions, is not a little singular: that each should have been able to advance pathological data whereupon to ground such conclusions, is not less so. But, after all that has been written (and there has been much well written), are we possessed of a theory which will equally satisfy our minds and direct our practice? If such is to be found, it has not come within the range of a course of reading which, without affectation, is far from being limited, upon this interesting affection of the female economy."

In this manner, we might have pursued the subject much farther. But already it is proper to apologise for having presented before the reader so many heterogeneous and foolish theories and opinions, sufficient to have exhausted the patience of Socrates himself.

The individiduals whose names have been mentioned have bewildered themselves with visionary theories, have substituted mere ideas for facts, and have replaced a host of inexplicable mysteries, and created as many absurdities in their room, which must appear evident to every person who reads them with care.

I might have given equally lengthened extracts on *inflammation*, with as many absurdities. Of all the treatises on fever and inflammation, with the exception of Hippocrates, Linnæus, Sydenham, and Dr. Buchan, all of whom were humoral pathologists, they have ascribed the shadow for the substance, the effect for the cause, and, as Mackintosh observes, they have considered their patients as mere machines. It would be unimportant to take further notice of their works on inflammation and fever, as the various authors and reviews have spared me the necessity of so doing, without being able to correct their errors.

Hippocrates observes, " he that is ignorant of botany, and of the physical powers of plants, how can he understand the diseases of man? for out of them is the whole of the human body composed, whether in sickness or in health." Can we wonder at the mass of misery and disease that exists in what is called a civilized country, where such knowledge is scarcely known, even to the leaders of the people. Alas! we may apply the words of Scripture and say, *The leaders of this people cause them to err; and they that are led of them are destroyed.*

At no period in the history of man has population arrived

at such a pitch of refined ignorance of the laws of nature as in our degenerate day, which the mass of disease and misery abundantly proves. Before pointing out the causes of inflammation and fever, I will make a few remarks on some of the observations made by the authors before named, and which I hope may be of use to mankind.

Dr. Cullen observes, he had frequently seen fevers cured by a hæmorrhage so moderate, as, for example, a few drops of blood from the nose, which he thought was incapable of carrying out any considerable quantity of matter diffused over the whole mass of the blood. The observation was well known to Hippocrates, and practised by the American Indians by cutting a small artery in the head with a sharpened flint-stone; I have frequently seen a fever checked at once by a pinch of cephalic snuff, as it caused a copious discharge from the nose.

The following anecdote, as related by Linnæus when he was in England, will clearly point out the ignorance of Dr. Cullen on the subject. At that time the cattle were affected with what was called the murrain in the spring of the year, and which, for want of a better knowledge of the disease, was generally ascribed to witchcraft, and the influence of some poor old woman. And it did not unfrequently happen, that she was brought to the stake and faggot to expiate for her supposed crimes. There was a person who was held in great repute, as being fully competent to break the spell and cure the cattle; so great were his powers, that even many of the *literati* of the day believed in his miraculous powers in counteracting the baneful influence of the agents of the devil.

Linnæus was of course an unbeliever, and went to put the man's power to the test. He describes the scene as follows:—The arch operator had a number of piles of shavings, hay or straw, laid at convenient distances in the field, and a great number of men with clubs. The cattle were brought up, and placed between the men and the cocks of straw; the operator had a sort of match-paper, wherein the charm lay, and which he called *need-fire*—as he assured the public no other fire would break the spell; he set fire to the combustibles; the animals had a great dread of fire, and endeavoured to make their escape, when they were met by the men with the clubs; a terrible conflict took place between the men and the poor animals: what from the roaring and bellowing of the cattle from the severe action of the imagined witchcraft, and the severe mauling from the clubs to force them among the fire and smoke, the

witches spell was completely broken. The artful scene being over, Linnæus observed that the cattle which bled at the nose and had the bowels relaxed, were the best cures: he begged of them to let one of the cattle die that had not been subjected to the discipline, and he would shew them at once the real cause of the cattle's illness. He then took a knife, opened the stomach, and found the *cicuta virosa*,* and other poisonous plants, which were the cause of their sufferings. Thus a great discovery in the cause of inflammation, fever, and delirium was made, and an important discovery in the healing art. Linnæus soon suggested a more mild mode of treatment, by boring the under side of the horn, so as to wound the arteries. In this manner, the poison taken into the circulation, so highly injurious to the animal and vital spirits, would immediately pass off.

This single experiment gives us one of the most decisive proofs of the most violent causes of inflammation, fever, and delirium, produced by the *cicuta* and other *umbelliferous plants*,† and the most expeditious mode of cure. I have saved hundreds of cattle in the American swamps by the same means; and when alone, and could not bore the horn, I have cut the dependant vertebra of the tail. It would not bleed much, but soon began to discharge a thickish matter, which was secreted by the violent force of the inflammation; when the animal soon recovered.

I have noticed that cattle, when giving milk, could not be poisoned by eating poisonous plants; but their milk has poisoned whole families, as well as calves and other animals not giving suck; particularly cattle that had been eating the *rhus toxicodendron*, or poison sumach.

Dr. Clutterbuck, in his theory, has attempted to prove that all fevers depend upon some degree of inflammation of the brain; and that heavy meals, etc., were some of the principal causes of the disorder. He was certainly right in ascribing the action of typhus fever to inflammation on the brain, but he has completely failed in ascribing it to the chief cause; which I pronounce to be the potato or *solanum* fever:—having ascertained in Ireland, last summer, that potatoes, when planted on recent manure from the pig-pen and the house, were sure to affect the family with that disorder; and more particularly when they were planted in a wet or clay soil. Had the doctor paid proper attention to

* *Cicuta virosa*—long-leaved hemlock and cow-bane.

† *Umbelliferous plants*—such as have their tops spread out, and resembling an umbrella.

the laws of nature, and the fever reports from the city and county of Dublin alone, he might have observed that sixty thousand had passed through the fever hospitals in the year 1826; the whole of the *solanum* tribe will produce that severe action on the brain, and consequently the great prostration of strength which invariably follows: it may I consider, with propriety, be called the potato, or *solanum* fever.

Dr. Broussais, of Paris, asserts, that all fevers may be referred to gastro-enterites,* simple or complicated. Dr. Mackintosh, in reviewing Dr. Broussais's work on fever, says, "It is no wonder that Broussais should so frequently find the mucous membrane of the stomach and intestines altered, both in appearance and structure, if the habits and mode of the people are recollected; the stewed meats, the sallads, oils, and sweets consumed by Frenchmen among the higher ranks, together with the hard beer and acid wines which they drink, and the unwholesome food eaten by the lower classes,—all tend to produce irritation in the digestive organs." I can most positively assert, that Dr. Mackintosh is mistaken; the above-named food being used by the French in New York, Philadelphia, Charleston, and New Orleans, during the worst seasons of fever, and under the greatest extremes of hot and sultry weather; and they invariably escaped the fever.

The true cause of the gastric fever is produced by the use of milk, butter, and the fat of diseased butcher-meat, where sheep and cattle are fed on pasture where the ranunculus, or buttercup, and other poisonous plants abound.

I have not seen Broussais's work on fever, and I am not aware to what he ascribes the cause of fever; but I can assure him, that the buttercup is producing more inflammation and fever in Europe, at the present day, than all other causes put together.

There is no tribe of plants in Europe that will keep up visceral inflammation,† both in animals and man, equal to the ranunculus tribe. It is a complete burlesque on the understanding of those who pretend to be the guardians of the public health, to allow such poisonous plants to pervade the pasture fields to such a degree, as to produce more misery to the inhabitants than all other causes put together.

And the next source of misery is the poisonous drugs given for the pretended purpose of alleviation and cure, which but too frequently cause a worse disorder.

* *Gastro-interites*—ulceration in the stomach and bowels.

† *Visceral inflammation*—inflammation belonging to the bowels.

CHAPTER IV.

Ravages of Fever in New York—means effectual in its removal—and the formation of a Board of Health.

The next fever-monger is Dr. Hosack, of New York, who at once charged the disorder on the Almighty, by poisoning the air we breathe, and permitting the air to be highly charged with malaria, miasma, and other noxious and infectious effluvia, until it became a cuckoo's song in the mouths even of children.

The following fact is exceedingly ridiculous. In order to take vengeance on the noxious air, the Doctor and his followers so far imposed on the the judgment of the mayor and corporation of New York, as to persuade them to give them a large quantity of powder to shoot the yellow fever out of every street of the city. They began firing the cannon in the streets, and broke a number of the poor people's windows: but, alas! the fever still continued to rage after the gunpowder was expended.

Such visionary theories advanced and contradicted as to the causes of fever, are not worthy of our notice.

The strict regard to cleanliness was enforced to a most unprecedented extent without abating the evil. I was then in the full vigour of health, having been brought up on a vegetable diet; which, I have no doubt, was the chief cause of preserving my health and life, as I attended and nursed a considerable number during the whole of their illness, without taking the fever. Being anxious to know the cause of that dreadful malady, I attended the dissections. The doctors were astonished how I escaped the contagion. So great was the mania of infection, that fathers and mothers were deserted, and left to the care of strangers. Mr. Hardy,* like Howard, went from place to place in the city, administering comforts to the diseased and miserable. I was induced to follow his course. It would be impossible to describe the distress I witnessed. I was often surprised at hearing the discordant opinions of the medical men, and set about enquiring into the cause of the fever. I frequently found the water to disagree with the constitution of the

* Mr. Hardy, a late celebrated Scotch philanthropist.

inhabitants, and turned my attention to that subject. I discovered the ground on which the city stood was sand, or gravel. There were no common sewers; every house had a cesspool and water closet in the yard; the pump was not unfrequently more than a few feet or yards from the cesspool. From the gravelly nature of the soil, the contents of the cesspools soon communicated with the wells, some of which had been sunk to a great depth in the streets, and had not been cleansed from the time the wells had been dug. No person could descend without the risk of losing his life, in consequence of the noxious gass. The water, when first pumped in hot weather, was highly destructive to life; hence the pernicious caution of mixing it with ardent spirits to counteract its effects; so that many of the inhabitants became habitual drunkards. I soon found the water had a powerful effect in producing congestion of the liver,* and indigestion: and in hot weather it was not uncommon for twenty or thirty persons a day to lose their lives through drinking the water at the pump,—which the faculty usually ascribed to the effects of the cold coming in contact with the heated body. I discovered that was not the case; as I was in the constant habit of drinking soft ice-water, and had witnessed hundreds of others doing the same, without receiving any injury, although the ice-water was many degrees colder than that from the pump: I therefore concluded it to be the noxious gasses that caused immediate dissolution.

But another of the chief causes of the fever was the diseased butcher-meat. I visited the slaughter-houses, where I found a great number of the sheep, and some of the cattle, much diseased. When killed in the evening, they were found tainted by the middle of the next day; and when used as food, it would pass into the putrefactive fermentation in the stomach, and produce the most violent spasmodic affections of the liver, whereby the bile was thrown back on the lymphatics,† and taken into the circulation,—which gives the yellow tinge to the whole body. I found the water, diseased meat, and unripe fruits, were the chief causes of the dreadful scourge. I shewed Mr. Hardy the folly of giving way to that ridiculous farce of shooting away the fever. On sober reflection, he allowed it was most absurd nonsense, as the sequel had proved. I stated

* *Congestion of the liver*—thick humour collected in the liver.

† *Lymphatics*—absorbent vessels in every part of the body, which contain a transparent fluid called *lymph*.

my views on bad water, and diseased butcher-meat. He was astonished at my report of the state of the meat, and accompanied me to the slaughter-house of an intelligent butcher in that city: the butcher shewed him the diseased meat, and candidly told him he was quite of my opinion, that a meal of diseased meat would do more injury to the constitution than all the air they would breathe for a month.

Mr. Hardy was rejoiced to think we had discovered the cause of the disorder; but observed, we must use great caution, and not even give a hint of the discovery, as the doctors had committed themselves by ascribing the cause of fever to a contagious influence on the air. Those who framed the report were such keen doubters and disputers, that unless we came before the corporation with a powerful backing, they would bamboozle us at a most wonderful rate, as they could hardly bear to have their judgments called in question by their own body; but if we attempted to impugn their judgments, unless we could overpower them by numbers, it would be a hopeless case. I could not believe that any human beings would oppose a public good, particularly when we were doing our utmost to avert so dreadful a calamity. He told me, I should go to school and study human nature, then I should be better able to judge of the views and conduct of men when their interests and judgments were called in question. He had no doubt I should find it out, and probably *too often*, before my race was run. Certainly, I have lived to experience and deplore the truth of his remark, and that the lives of patients, and the anxious hopes of their tender-hearted friends, are treated with the utmost contempt when brought into competition with the reputation of medical men—founded upon false theories, and conceited ignorance. Mr. Hardy spoke to a number of the most influential men in the vicinity of New York. At a meeting, consisting of Dr. Tillery, and about fifty other gentlemen, I explained my views of the various causes which I considered most likely to produce the fever. The subject was taken into consideration, and what I mentioned was admitted to be the *chief*, if not the only cause. They determined to bring the question before the corporation, and petition them to establish a Board of Health: which determination was immediately carried into effect, notwithstanding the opposition it met with from those keen doubters and disputers.

The blessings which the inhabitants of New York derived from the Board of Health were, and still are, incalculable.

The following account of its operation and effects cannot fail to afford pleasure to every friend of humanity.

As the subject is of the utmost importance to the suffering inhabitants of London, I will particularly mention the formation and powers of this most interesting institution.

The Board is composed of a number of patriotic citizens, many of whom are independent gentlemen. The mayor and corporation are members. The first check the Board has on venders of food is, that all persons who manufacture food, such as millers and others, are subject to the law of inspection, pointing out the first, second and third qualities of flour, and solid provisions of every description; if it is found unsound, it is immediately destroyed. The butchers are obliged to bring their fresh meat to the general market, which meat has to pass the ordeal of the inspector, and in case of being found diseased or unsound, it is sunk into the river; as they are not allowed to sell it for sausages, or vend it in any clandestine manner. The foreign wines and liquors are also inspected, and if found to be adulterated they are condemned. The pure unadulterated liquors have the inspector's name, the date of the year, and the name of the vessel on the hogsheads or pipes. The inspector takes a sample of each, which he preserves, that, if the retail merchant adulterated it when in his shop, and the Board of Health should call to examine such wines and liquors, and prove, by comparing them with the samples they took away, that they were adulterated, the man is deprived of his license, and he is not allowed to sell any more liquors or food in that city. The flour being examined, the baker has no excuse for his bread being adulterated.

I will shew how differently things of this sort are managed in London. A member of the Society of Arts finding the bread at his breakfast very bad, he, being on the inquest, got two witnesses to accompany him to the baker's shop, purchased a loaf, analyzed it, and found it to contain a large portion of alum and flour spar. He sued the baker, and produced the evidence that he extracted the articles from the loaf. He was asked whether he saw the baker put the alum and spar into the bread? He answered no. He was then asked how he knew but that the miller might have mingled the flour with the deleterious ingredients? He was non-suited, and had to pay the costs for his trouble. Thus the miller was left to adulterate the flour, and the baker the bread at their pleasure. Had such a thing happened in New York, the baker would have lost his license. If he had excused himself by saying the miller had adulterated the

flour, they would have told him he should have bought that which had been inspected.

The late Governor Clinton, of New York, observed, he could pardon a man for robbing him on the highway; but that miscreant who could deliberately put poisonous substances into his food or drink in order to enhance his gain, he considered, to all intents and purposes, a murderer of the deepest dye. Every exertion was used to get a good supply of wholesome water for drinking and culinary purposes; which is now brought in at a moderate charge, and of the best quality.

The same salutary regulations were carried into effect in the other cities in the United States, particularly at Philadelphia, where there is a specimen of the finest water works, and the purest water, in the world. Before the formation and salutary influence of the Board of Health, the state of things in New York and other places from the year 1794 to the year 1800, was truly frightful and calamitous in the extreme. The inhabitants of New York and Philadelphia were obliged to fly from their homes, all commerce was nearly at a close, and their ships, before entering into other ports, had to perform quarantine, lest they might take a cargo of *miasma* or foul air, such as the inhabitants of these devoted cities were obliged to breathe. All this happened through the sophistry taught in those schools over which common sense wept. But no sooner did the influential citizens establish her majestic sway, by listening to salutary counsel, than fever and the fears of the inhabitants vanished like the mist before the vigorous rays of the sun. During the above periods, from 1794 until 1800, New York and Philadelphia were the most unhealthy cities in the world: now, they are the most prosperous and healthy of any under the sun.—So much to the honour of common sense rulers.

If similar Boards of Health were formed in London, and all other cities and towns in this country, under the direction of our rulers and scientific philanthropists, misery and disease stalking abroad in ten thousand appalling forms, would cease to appear; and a regeneration would be accomplished in the community as to health, happiness, prosperity and power, which would surpass the unrivalled and glowing fables of the golden age.

CHAPTER V.

An epitome, or short view of the different theories of the causes of Fevers; admirable and just remarks of the Westminster Review on the subject of Fever generally; and a detail of the effects of Fever on those who have survived its ravages.

In giving the following short review of the different theories of fever, there may be some repetition of what has been previously quoted from Dr. Good; but it is considered of importance to bring them under one view.

I. Hippocrates taught that fever was an effort of nature to expel something hurtful from the body, either ingenerated or introduced from without.

II. The theory of the Greek schools was founded on the doctrine of a concoction and critical evacuation of morbific matter.

III. That of Stahl and Hoffman, was founded on the doctrine of a spasm on the extremities of the *solidum vivum*, or living fibre.

IV. That of Bœrhaave, is founded on the doctrine of a peculiar viscosity or lentor of the blood.

V. That of Brown and Darwin, is founded on the doctrine of accumulated and exhausted excitability or sensorial power.

VI. That of Dr. Clutterbuck and Professor Marcus, has been identified with inflammations, and their proximate cause has been ascribed to increased action in some particular organ.

VII. The theory of Cullen is founded on the doctrine of atony and spasm on the extremities of the solidum vivum, or living fibre.

I think a more unparalelled hoax on the understanding of man has never been attempted, than to inform his admiring class that spasm and a want of contractile power, could take place in the same vessels at the same time.

VIII. Dr. Fordyce's theory is, that a fever is a disease that affects the mind, with the solids and fluids of the whole body.

IX. Dr. Smith, physician to the Fever Hospital in London, who for many years has had the most extensive experience, after all has come to this conclusion, that all the former authors who have written on this subject have substituted the effect for the cause; and his opinion is, that fever is a *nonentity*:—a most appalling reflection to the unfortunate victims of the disease, and a complete puzzle to the Esculapian professors, when, coming armed for the combat, they find they have to combat with a *nonentity!* So much for the boasted acquirements of the day! I find nothing in nature to match with this, not even Don Quixote's combat with the windmill: he had an entity to oppose; but, alas! the professors of the day, in the matter of fever, have nothing but a nonentity to contend with!

I shall now close these lengthened extracts with one from the Westminster Review on the works of Drs. Smith and Stocker on Fever. The remarks of the editor of that learned periodical are so correct and masterly, that I am led to believe he must belong to the medical profession. His observations cannot fail to afford unfeigned satisfaction to those who are interested in a subject, the causes and nature of which have defied the researches of eminent physicians, for so lengthened a succession of ages. My readers will do well to consult the Edinburgh and Quarterly reviews on the same subject.

WESTMINSTER REVIEW.

"In pursuing the works of Drs. Smith and Stocker, we address ourselves as directly to the public in general as to the medical profession. The controversy which now agitates this country upon the subject of fever, is of equal importance to every class of society; and its issue must be looked for with anxiety by all who value the health and happiness of the community. The property of the country is of some importance; and by revealing the dangers to which it is exposed we have, in more instances than one, endeavoured to protect it: but the lives of the public are of still greater consequence, and we are now solicitous to prove our concern for their safety and preservation. Fever is a pestilence, as deadly in its action as it is migratory in its habits: neither rank nor fortune, neither youth nor vigour, can shield from its influence; but the healthy and the young, the helpless and

the old, the rich and the poor, may be alike its victims; and we can derive no consolation from the belief that this terrible malady is either generally understood or scientifically treated. The arguments about to be urged in the hope of elucidating its real nature, can be understood by any person of sense; and, if they are sound, it deeply concerns every one to be acquainted with them. In too many instances, the medical practitioner is called upon to perform a mental operation, for which his habit and education have but ill prepared him. He has to deduce an inference on the state of diseased organs, which are concealed from his observation, by signs which are appreciable by his senses; and there passes not a day in which hundreds of lives do not depend upon the skill with which this mental operation is performed. Now, the important object is to shew how these signs can be successfully interpreted in fever, what dreadful consequences follow their misconception, and how easy it is to trace to this single source the rise of almost every controversy upon this object, whether it refer to the nature or to the treatment of the disease.

"In our last Number, many of these errors were examined with some minuteness; in the present instance, it is our purpose to review a few others; and, as the points about to occupy attention are more immediately concerned in treatment of fever, we are anxious that the public should look with their own eyes into the consequences of the errors we shall endeavour to expose, that they may see the exceeding hazard which their continuance must occasion. Were the extent of disputed territory limited to a few inches or a few feet, the value of conquest might be of little importance; but it is a wide and spacious interval which is the subject of contention. The grand point at issue is not a verbal difference, or a conventional technicality; it is an important practical doctrine. It is whether a disease, which is never absent from our cities and our villages,—which spares neither age, nor sex, nor constitution,—which comes into our families unseen and unprovided for,—which creeps from house to house with noiseless progress, and covers entire countries with death and desolation;—it is, whether such a monster can be more effectually killed by being starved or fed. Surely this is a wide difference, and merits some consideration. It may be put to the good sense of the public, if it can be a matter of no moment whether in the self-same disease we bleed, and leech and purge; or support, and strengthen, and excite. These modes of treatment sadly differ, and neither of them is inert; each must either effect good or harm:

and in many, very many instances, must save or destroy life. If fever be an inflammatory disease, or a disease so akin to inflammation that the difference resolves itself into a mere matter of degree, it is a serious affair to nurse and fondle it with wine and cordials; and, on the other hand, if it be really a disease of weakness, every one must allow that bleeding, purging and starvation, are no children's toys. To bleed or not to bleed, is a question which, in this instance, can find its counterpart only in the soliloquy of Cato: and if the great national distress, under which we are now labouring, has not induced the public to regard life as less estimable than formerly, 'to be or not to be,' ought to be their enquiry when fever enters their dwellings, and calls for the interference of the faculty."

EFFECTS OF FEVER.

Before I point out some of the causes of fever it may be important to take notice of its dreadful effects on the constitution of those who have survived its ravages.

I have had numerous opportunites of observation, both at home and abroad; on others, as well as on my own patients. When we consider the violent degree of inflammation on all the organs of the body, and the horrid practice of bleeding, thereby weakening the vital powers, so necessary to bear them up against the assaults of the disease, and the poisonous drugs poured into our stomachs for the purpose of alleviation and cure, we cannot at all wonder that they who outlive the disease itself should afterwards resemble a ship with torn sails and broken masts after a tempest, or a city almost desolate and in ruins, after the overwhelming violence of a cruel siege. If fever is a *nonentity*, the means generally adoped to cure are an *entity* with a vengeance, not unfrequently producing *more* misery for the unfortunate sufferers, both in body and mind, converting their bodies into living thermometers and barometers, suitable to every change of weather, producing cramps, spasms, chronic diseases* of the bones, ancles, nerves, glands, and all the solids of the body; the fluids are not less susceptible of impression on the most trivial deviation from proper food, which produces indigestion, with its awful train of attendants; the blood is thrown into an acid or acrid state, highly susceptible of every change of weather, and ready to blaze up into the most active inflammation, and subjecting the unfortunate to the same discipline again; making

* *Chronic diseases*—diseases of long continuance.

them liable to all manner of nervous disorders. Nor do they only affect the body, the mind likewise suffers by being rendered extremely weak and peevish; by low spirits, timourousness, melancholy, hypochondriasis, fickleness of temper, constantly imagining all manner of evils that are ready to befall them by day; and scared by dreams, and terrified by visions in the night. In this manner they are unavoidably subjected to a host of maladies; and, for the most part, their temporal enjoyments and comforts in life are for ever closed.

Alas! how have we fallen from our first estate! How painful it is to compare the present situation of man, physically and morally, with that of perfect innocence, when he first came from the hand of God. Originally, all the faculties of the soul were universally adorned with the very perfection of intellectual and moral excellence; they were ever apt and disposed to fill the respective offices and discharge the important duties assigned them by their Creator. He must have possessed a clear and extensive knowledge of God's works, and particularly of those things which were suited to his nature; and there existed a delightful harmony betwixt his reason and his passions, which rendered him blessed in himself, and fit to be the intelligent representative of his God on earth. What an affecting change has taken place! We now particularly refer to man as an *intelligent* being; observe then his ignorance of the laws of nature, and of that provision God has made for him in the vegetable kingdom, to feed him with *food convenient* for him. There is also, in the same kingdom, a rich supply of those means which are sufficient to prevent the encroachment of disease, and when disease has seized its victim to compel it to depart. Men, as to their ignorance on this subject, are sunk below the brutal tribes: all wild animals and fowls refuse to eat any thing poisonous or injurious to their health, unless pressed with hunger, or diseased with insects, and most of them will suffer death rather than eat poisonous plants. The domestic animals are a sad exception to the rule, although not so sunk in the scale of created beings as man. It is true that horses and dogs, if they had a choice of food, would never become diseased.

Mankind consume every thing in the form of meat and drink, and the produce of every clime, without even inquiring if it is agreeable to their nature, or consistent with the laws of life and health; of the irrational tribes the hogs only do the same, and therefore it was observed in former ages that mankind and hogs were the most liable to disease. In our most unnatural period of the world, the sheep and cattle are

more diseased than the hogs;—man is the worst of all, for he indiscriminately feeds on the bodies of diseased animals, which, in the nature of things, cannot fail to generate disease in those who feed upon them, and who, by the process of digestion, make them a part of themselves.

Can we wonder that the faculties of the soul are up in arms against one another? Can we wonder that the understanding of the men of the world is darkened? Oh! how great is that darkness: their eyes are blinded, their ears are stopped; for notwithstanding the avenging rod of God is suspended, and ready to fall on their devoted heads, their hearts are hardened against one another; harder than the nether millstone.

Much has been said about reform in our financial affairs: I can assure the public, a greater necessity for reform exists in our agricultural and medical policy; and I hope the citizens of London will petition our reformed parliament, and point out to them the great bodily sufferings and mortality of the inhabitants, caused by the use of diseased butcher-meat, and adulterated provisions. This should claim their attention in preference to any subject matter that can be brought before them; as every class of society is deeply concerned in the question: the evil not only affects the present generation, but must fall with accumulated weight on posterity. The number of diseased children that have been born in the two past years, is degrading to the nation; and so deeply has the evil penetrated the vitals of the public, that it will be felt for a generation to come, although active measures may be taken to remove it.

CHAPTER VI.

Causes of Fever,—the mental passions,—remarkably controled by physical causes.

When the soul and body of man is in a healthy state, with what energy they perform their functions, and what delight is felt in contemplating the works of God; man can then discern the insignia of God engraven on them by his own unerring hand,—those marks which show their quality and use. He can, by reviewing their forms, know the essences contained in their composition, and make comments on their respective properties; he can see consequences yet dormant in their nature, and effects yet unborn, and in the womb of their causes. His understanding could almost pierce into future contingencies. Such men we have had almost in every period of the world, though more rare in our boasted age of improvement than for many centuries past. It seems to be the doom of the philosopher, in our day, to labour in the fire,—to seek truth among phantoms, and thus to exhaust his time, and impair his health; and what is the result?—nothing but doubtful theories, pitiful and controverted conclusions, while the treasures of nature are left untouched, where remedies for all manner of diseases are to be found in that storehouse of nature, which contains unerring rules of action, the seeds of health, and that which directly tends to weaken the bad passions, and to invigorate and defend the moral and amiable principles of our nature. This connexion betwixt the physical and moral world,—betwixt natural causes and moral effects, furnishes a most animating display of the wisdom and goodness of the deity in the perfect arrangement of all his works.

The propriety of these remarks will be strongly enforced by our observations on the various passions, which on the one hand so powerfully affect the body as causes of fever, and which on the other hand are themselves so remarkably controled by those physical causes, the knowledge of which can only be obtained by studying the *laws of nature.*

It will be of importance to notice the passions, which have their residence in the sensitive appetites. We must know that inasmuch as man is a compounded being, and a mixture

of flesh and spirit, the soul, during its abode in the body, is constantly acting by the instrumentality of the passions and inferior affections. It is a subject of great and useful interest to show how far the body may be affected by mental passions, in a medical point of view. I shall therefore treat of them in their order.

THE PASSION OF LOVE.

It is universally acknowledged that love, of all the passions, is the most violent, and less under the guidance of reason than any other that can influence the mind. For the wisest ends it is implanted in the human breast. The other passions are necessary for the preservation of the individual, but love is necessary for the continuation of the species; it was therefore necessary that this passion should be deeply rooted in the human breast. It is the grand instrument and engine of nature, the bond and cement of society, the mainspring and spirit of the universe. Love is such an affection, as cannot so properly be said to be in the soul as the soul to be in it. It is the whole man wrapt up into one desire, all the powers and faculties of the mind abridged into that one inclination. It is of that active, restless nature, that it must of necessity exert itself; and like the fire to which it is so often compared, it is not a free agent to choose whether it will act or not, but it streams forth by natural results and unavoidable emenations, so that it will fasten upon an inferior and unsuitable object, rather than none at all. The soul may sooner leave off to subsist than to love; and like the vine, it withers and dies if it has nothing to embrace.

There is no passion which people are so ready to tamper with as *love*, although it is thus rendered more and more dangerous. Some men make love for amusement; others from mere vanity, or to shew their consequence with the fair. This is one of the greatest displays of wanton cruelty, and therefore a crime of peculiar aggravation. What we eagerly wish for, we easily believe. Hence the *too credulous* fair are betrayed into a situation which is truly deplorable before they are able to discover that the pretended lover was only in jest. But there is no jesting with this passion; for when it reaches a certain height, it admits of no cure but the possession of its object, which, in such a case, ought always to be obtained according to the direction of the word of God, and the wise laws established in well regulated communities.

On the present occasion, we have nothing to do with the gross passion of concupiscence; which is as different from that of pure and genuine love, as light from darkness. They

who follow the lust of the eye, the lust of the flesh, and the pride of life, can only be considered as mere brutes, where all centres in their own gratification. Such beings are a disgrace to their species, while they furnish a most distressing example of intelligent beings having their reason bound by the fetters of beastly appetites and fleshly lusts.

Love-sickness produces the most serious consequences to the whole corporeal frame, by occasioning sleepless nights, a feverish pulse, and loss of appetite. From the exalted state of the imagination, its severe action on the nerves and brain, and the increased sensibility of the body, the reality of life is transposed into a kind of visionary existence. So far mental derangement and excessive diminution of strength in both sexes, are the melancholy results.

Many exactly in the situation now described have been placed under my care. The *vapour-bath* has proved of the greatest advantage, as it equalizes the circulation of the whole fluid of the body, and thereby removes the pressure from the part affected, and thus relieves and strengthens the intellectual powers, by weakening those physical causes which so distressingly affect the *nerves*, which appear to be the link that connects mind and matter; yea, which conveys to the soul the good or evil of which the body is possessed. It is the greatest luxury to relieve such cases: they have evinced to me unbounded gratitude, as being the humble instrument of restoring those long-lost faculties and comforts which for a season appeared to have been kept in captivity by the dæmon of despair.

PASSION OF JOY.

The passion of joy is somewhat akin to love, bursting out like a flame in a sudden exaltation of the soul, when the imagination or fancy spreads its wings, and like a blazing meteor rises to the most astonishing heights; and while it ascends, dazzles the eye of the soul with its overpowering brightness. The instances of derangement produced by a sudden fit, or an immoderate flow of joy, are numerous and easily accounted for. Its action on the whole nervous system, and the brain in particular, produces great langour and lassitude, like the effects of intoxicating liquors, or poisonous drugs. When the elevating faculties of the mind, and especially the imagination, are once let loose, and both run wild together, the mental excitement will sometimes continue after the strength of body is completely exhausted; and when the strength is sufficiently recruited so as to enable the external senses once more to recover the

lively impressions of the objects that surrounded them, the paroxysms will not receive them in a true state, and a permanent derangement is the consequence; and not unfrequently, a sudden death. Could joy be employed as a medicine, and administered with a due regard to time and measure, from its powerful influence on the whole system there can be no doubt that it might be productive of the most beneficial effects; and there is no reason for hesitation in admitting many of the wonderful cures which are reported to have been occasionally performed by its sudden and powerful influence.

Hence Prince Hohenloe's pretended miracles by stimulating the passions, with a due regard to time and measure. He made a capital cure of a Nun at Washington, during my residence in America in the year 1823. She had an indolent tumour in the throat, which baffled the skill of the most experienced physicians. He appointed stated evenings for prayer, which stimulated her passions and operated like a slight fever, which soon softened the tumour. On the night appointed for the pretended miracle to be performed, they prayed most powerfully, and made her believe that all the angels in heaven and saints on earth were concerned in her cure. This conviction stimulated her passion, and produced a high increase of fever; the priest gave it a pinch, when it burst, and the whole of the contents ran out, to the unspeakable joy of the miracle-believers. The supposed miracle completely astonished the classical dolts, and put all the unbelievers and infidels to the blush, whose mirth had been much excited before the tumour burst; at the same time it gave the faithful votaries of Hohenloe, apparently, a complete triumph. I met Mr. Newton, the Member of Congress: he observed, Can you say nothing for the cause of truth and religion, and prevent them bringing a stain on the Christian name? This was the more necessary, as the medical men who attended the Nun, and formerly ridiculed the idea of her being cured, were thunderstruck at the performance, and could say nothing in explanation. The *faithful* ascribed it to the immediate agency of the Deity in answer to their prayers, and as a proof of their's being the only true religion: while many of the other fools as deliberately ascribed it to magic, or the agency of the devil. I answered him, That their opinions were equally apart from the truth. After assigning the reasons above mentioned respecting sudden joy, and that I had seen a slight typhus fever produce as sudden a cure as the one in question, he was much satisfied.

I cannot help giving a hint to *miracle-workers* in Britain in our present day:—can they have so far forgotten themselves as to suppose that the superintendent providence of deity was not sufficient for the supply of all the bodily wants of men to protect them, and not be driven to such a shift as to stop the ordinary course of nature, as if the ordinary laws he has established were not equal to the task?

Prince Hohenloe deserves great praise for the cures he has performed, had he ascribed them to the true cause. It is, at the same time, most humiliating to the pride of a certain description of *literary quacks*, with their long gallimaufry of poisons, which bring more misery to mankind than all the other evils of life put together, that they should be exceeded in the work of cure by the fanatical superstition of Prince Hohenloe!

SORROW AND MELANCHOLY.

In opposition to love and joy we may class *sorrow* and *melancholy*. If love and joy exerted their specific action on the nerves and brain, the two in question exert their specific influence, for the most part, on the liver; hence the wise provision in the mosaic law, forbidding the days of mourning to be extended to more than forty, as the liver would have become diseased in weakly persons.

Hippocrates, in his works on insanity, observes, that patients affected with melancholy, became emaciated, withered, and hollow-eyed, and are, at the same time, troubled with flatulency and irritations, with vertigo and singing in the ears; that they get little sleep, and when they close their eyes are distracted with fearful and interrupted dreams. I have often observed such patients as were troubled with flatulency and acrid irritations, were affected with congestion of the liver; a sufficient quantity of bile not being secreted to prevent flatulency and acid eructations: or otherwise, it was thrown back on the lymphatics, and taken into the circulation, thereby imparting the yellow tint to the skin, and particularly to the eye. The patients were affected with head-aches, frequent attacks of giddiness, sudden confusion of ideas, a great disposition to anger, violent irritable agitations, and the most acute sensibility of nerves, whereby they were often carried to the most extravagant excesses; they have a desire of doing well, but the will is wayward and unsteady. There are a great variety of symptoms, constantly changing with the progress of the disease. But one of its worst forms is when it settles down into a religious melancholy, when their constant behaviour is as if they thought it a crime to be cheerful; they imagine the whole of religion consists in cer-

tain mortifications, or denying themselves the smallest indulgence, even of the most innocent amusements; a perpetual gloom hangs over their countenances, whilst the deepest melancholy preys upon their spirits and mind; although the present gloomy prospects vanish, every thing puts on a dismal appearance, and those very objects which ought to give delight, afford nothing but disgust; life itself becomes a burden; and the unhappy wretch is persuaded that no evil can equal what he feels—that his crimes have been of so deep a dye they can never be forgiven. In addition to this, many often put an end to their miserable existence!

It is a great pity that ever religion should be so far perverted as to be employed to minister to, and increase those very evils which it was designed to cure. Nothing can be better calculated than true religion to raise and support the minds of its votaries,under any afflictions that can befall them: it teaches man that the sufferings of this life are preparatory to the happiness of the next; and that all who persist in a course of virtue shall at length arrive at complete felicity.

Persons whose business it is to recommend religion to others should beware of dwelling too much on gloomy subjects; that peace and tranquillity of mind, which true religion is calculated to inspire, is a more powerful argument in its favour than all the terrors that can be uttered. Terrors may indeed deter men from outward acts of wickedness, but can never inspire them with love to God, and that real goodness of heart in which true religion consists. My *vegetable vapour-bath* properly medicated, with the *alterative** and *anti-acid* medicines, also the use of the *hepatic pills*,† when necessary, have done more to relieve such cases than any thing hitherto made use of; in fact, the specific action of the baths and medicines on the liver, does more to relieve the generality of diseases than all other actions put together, as we more effectually purify the blood, through that organ, than from that of any other in the body.

AVARICE, ANXIETY, &c.

The operations of avarice, anxiety, and intense care, may be justly classed together, as their specific actions on the body are nearly the same. When once they have attained an ascendency over the mind, they are altogether of a different nature from the preceding disorders; they produce a more *chronic alienation*‡ of the whole frame; they have

* *Alteratives*—medicines to re-establish the healthy functions of the animal economy.

† *Hepatic pills*—pills for relieving the liver.

‡ *Chronic alienation*—long-continued alienation.

not a virtuous property of any kind belonging to them; they benumb and chill every energy of the body, as well as of the soul, like the stream of Lethe. The imagination is rendered cold and stagnant; and the only passion which they form is a confederacy against every thing in nature which does not belong to their annexed store. The body grows thin in the midst of wealth; the man voluntarily starves himself in the midst of plenty, not from the want of appetite, but from the fear of giving way to it; and although distress and famine were to take place in the country that is dishonoured by giving them birth, they would as soon part with that hellish fluid which pervades their shrivelled heart, as part with a guinea to relieve the distress of their countrymen. An awful proof is now presented of the truth of the above remarks, in our day:—although there is more treasure, and real sterling wealth in Britain than in most of Europe, and a large portion of the community are in a state of indigence, and some in a state of starvation. Although the avenging rod of heaven hangs over their devoted heads, and ready to fall, yet they will (to use the language of scripture) go on heaping up "treasures of wrath against the day of wrath." Hence the madness of the covetous man has been a subject of sarcasm and ridicule by moralist and dramatic writers in every age. Butler, who knew well how to describe them, furnishes the following portrait:—"The old are full of ashes in their bones, croups, and convulsions; dull of hearing, weak sighted, hoary, wrinkled, harsh, so much so that they cannot know their ownselves in a glass; a burden to themselves and others. If they be sound, they fear diseases; if sick, weary of their lives. One complains of want, a second of servitude, another of a secret or incurable disease, of some deformity of the body, of some loss, danger, death of friends, shipwreck, persecution, imprisonment, disgrace, repulse, contumely, calumny, abuse, injury, contempt, ingratitude, unkindness, scoffs, scouts, unfortunate, marriage, single life, too many children, no children, false servants, unhappy children, barrenness, banishment, oppression, frustrate hopes, ill success."

In the mean time continues the younger Democritus, "Thus much I may say of them, that generally they crucify the soul of man, attenuate our bodies, dry them, wither them, shrivel them up like old apples, and make them as so many anatomies. Nothing can be more different than the heart-ache, shrivelled up with avarice and anxiety; and the pains produced by heart-ache, from the reality of grief."

GRIEF.

Grief may be considered as the most destructive of all the passions. Its effects on the liver, and other parts of the body, are more permanent than any of the before enumerated passions; and when it sinks deep into the mind, it generally proves fatal, or changes into a fixed melancholy, which preys upon the spirits, and wastes the constitution by floods of tears. Until they are dried up, the sufferers may be compared to "Rachel weeping for her children, and would not be comforted, because they were not." When grief is intense, it injures all the functions of the body, spoils the digestion, and destroys the appetite; by which means the spirits are depressed, the nerves relaxed, the bowels inflated with wind, and the humours, for want of fresh supplies of chyle, vitiated. Thus many who were blessed with excellent constitutions, have become the untimely victims of grief occasioned by family misfortunes, the loss of property, or other calamities of life!

It will be important to my patients and readers, that I should mention a few circumstances which occurred to myself; it may serve as a beacon to those afflicted with grief—the most destructive of all human passions. The place of my birth being in a mountainous district, and remarkably healthy; the food of the best description, and the water very pure, it has been observed, that in all such situations the inhabitants are more lively, the faculties far more active, the human passions more easily excited, and their feelings more acute, than in lower parts of the country. Certainly there is no general rule without exceptions: but avarice, self-love, and the most brutal and hoggish passions are more observable in those who live in the plains, and on butcher-meat, particularly pork; than in those who live in more elevated situations, and on more simple and wholesome fare. What a contrast is presented between the two descriptions of people! My father, who was of a scorbutic habit of body, was advised to keep chiefly to a vegetable diet, which was attended with the most happy effects. Although I was born inheriting his disorder, yet by living almost entirely on butter, eggs, oatmeal, barley, flour, and vegetables till I was fourteen years of age, I became healthy. It must be remembered, that these things were all of the best quality, and the cattle perfectly sound. I mention this circumstance for the encouragement of my patients to persevere, as well as to parents to bring up their children, in the same way. I can assure them, that, when I left Scotland at twenty years

of age, for vivacity of spirits, agility, and strength of body and mind, there was not a man to be found in ten thousand who could surpass me: these things enabled me, by the blessing of God, to bear up under the most trying difficulties. Were the chequered circumstances of my life to be laid before the public, they would consider it to be a work of fiction rather than of truth. But hope, that anchor of the soul, and the unbounded superintending goodness of God, bore me up under the trying calamities which I was destined to endure. Indeed, I was a fit subject for the human passions to exert their influence upon, and was the butt of nearly all of them by turns; except pride, malice, avarice, and hypocrisy—these hateful passions have never been permitted to become the lords of my mind—while I have held the last two in peculiar detestation.

After passing through many diversified scenes in the journey of life, in the year 1801 I married at New York one of the most beautiful women in that city; and what was of far greater importance, the most cheerful and amiable of her sex. Her philosophic turn of mind, her admiration of the works of her Creator, and total dislike to the fashionable gentlemen of the day, made her reject men of fortune, and give me the preference. I need not say more to the honour of departed worth, than this, that during the time she was my wife, I never saw her angry. To be united to such a treasure, the reader may imagine what happiness I enjoyed; as none on earth could love each other more. Her mother and friends went to reside in Carolina, which occasioned our removing to that province. There was beside this, another great inducement—that country was famed for botanical and other natural objects. Then I only studied the productions of the earth more for their beauty than for the most important considerations; namely, their qualities and specific action on the human body. We went to visit her brother and friends at the western part of the State. On our way to Charleston, I was taken with the malignant fever, and proceeded a day's journey with my head resting on my wife's bosom, while she was bedewing me with her tears. The indescribable effect the fever produced upon me was nothing when put in comparison with the pain of being separated from *her*. I was put under the real mercurial and antimonial* treatment to an extent which blistered my mouth and face as if they had been scorched by fire. My wife was taken with the same fever; and the doctors ordered us to be kept separate. I became quite

* *Antimonial*—a preparation of antimony.

flighty. The medical attendant gave me a composing draught, as he said, to tranquilize me, which threw me into the most dreadful state of terror that can be imagined. In my frenzy, I imagined they were going to kill her. When they were trying to pacify me she heard the noise, and came immediately to my chamber, the moment I saw her I became composed. By the violent exertion of body and mind, and the immense quantity of drugs within me, a perspiration broke out, and also purple spots, or rather blisters, appeared over every part of me except the trunk of the body; they were four times larger than any I had ever seen. I opened some of them with the lancet: they were filled with blood, and the blood had the appearance of fine coffee grounds, mingled with a lymph like water; a thought struck me, that if they were absorbed they would destroy me. I began to let them out as far as I could reach, and made a negro let out the rest. A friend of mine was not satisfied with the medical treatment I had undergone, and requested Dr. Barron to call and see me; he came in just as the poor woman had nearly finished letting out the blisters. Seeing me covered with blood, he really thought they intended bleeding me to death, and therefore he fell into a most violent passion. I assured him it was done by my orders: he enquired the reason for my so doing, and was astonished at my presence of mind, amidst the affecting sufferings I was called to endure. I showed him the medical prescriptions; he observed I had one of the best constitutions he ever saw, otherwise I should have sunk under the violent force of the remedies which had been given to me, their ravages on my whole system but to plainly demonstrated this fact. When I understood that my wife was not likely to recover, the shock almost overpowered me; I sat by her, administering all the assistance in my power, for five days and nights without sleep for one moment—I could not be persuaded to leave her. She was sensible to the last, and only regretted the prospect of our separation for my sake.

From the great ravages the fever had made on my constitution, and the love I bore to her, she knew her death would be most severely felt by me: next to her own eternal welfare, her fervent prayers were poured out for the divine blessing to rest on and abide with me. On the seventh day after her first illness, the purple spots disappeared: she died a few hours after; when the event was so overwhelming, that I sunk quite exhausted!

After paying the last sad duty to her remains by committing her to the grave, I went to New York with an aching

heart: I was seized with convulsive fits on the passage, and hardly expected to reach my destination alive. The loss of her who to me was worth more than all other earthly treasures, and the fever and grief, had so changed my countenance, that I was not recognized even by my most intimate friends in New York. I had a constant hectic fever, which reduced me to a perfect skeleton. The severe anguish of my grief, and the monstrous quantity of mercury, sulphuric acid, and bark, which I took, was sufficient to have killed half a dozen of persons possessing but ordinary constitutions. My skin became tanned, from the great quantity of acid and bark I had taken; and was rendered so completely inactive, that not the least moisture came through. During the heat of summer, the constant fever so parched my throat, tongue, mouth and face, that I was frightful to behold —only parched skin covered my bones. From the constant operation of drastic purgatives and calomel, a most inveterate dropsy in my chest and abdomen took place: the rest of my body was like a skeleton; and in such a corrupted state, that the faculty would not draw the water off, for fear of mortification; and left me, as they supposed, for death. I lay in that state fourteen days, and none of the medical men came to see me. Mr. Robert Gossman, a well known philanthropist and sincere christian, came regularly and prayed with me, night and morning. My case was so critical, and my situation so hopeless, that he used previously to enquire if I was alive before he came.

Mrs. Graham, whose life and domestic sufferings are now before the public, was made acquainted with my sufferings. Hearing of an Indian doctor, at a village eighteen miles from New York, who was treating fevers with great success, she wished me to go and try if he could cure me. After some conversation with the Indian doctor he assured me he could effect a cure. I told the ladies present I would take his medicines, but I thought nothing could be of any service; and further, that I was anxious to die, my sufferings being so severe. Mrs. Graham's domestic affliction and present usefulness had such powerful influence on my mind, that, for the first time, I wished to live, if it was the will of God. She frequently observed, she had no doubt that the severe sufferings I endured, would prepare me for some important purpose. The Indian's remedies operated upon me like a charm: all the water subsided in a few days. My medical advisers were made acquainted with the circumstance: they said that the collapse would soon cut short my life. The Indian gave me medicine which kept up my strength and spirits: this excited

in me a great desire to know what the remedies were. The only information I could obtain was, that they were very good. He gave me tonics and demulcents to chew, and desired me to swallow the juice, which strengthened me remarkably. He made a bath of warm water, and mixed the water with herbs, which softened my skin; and afterwards gave me the vapour-bath: this he did in the following simple manner, by throwing water and herbs on heated stones placed in a kind of rude tent, under which I was placed. This had the effect of removing the outer parched skin off my whole body. All my black hair came off, and fine white hair grew in its place. I began to recover most rapidly.

So anxious were the ladies, viz., Mrs. Graham, Mrs. Hammond, and Miss Ogden, for my complete restoration, that they would not leave me for any length of time during the day, lest I should brood over my past misfortunes. The Indian kept me to strict vegetable and milk diet. In a short time my body was covered with a new skin, as soft as the skin of a child. There was little or no flesh on my body, so that when I held up my hand between me and the sun, the circulation of my blood was perfectly obvious. At the end of three months, I returned to New York. Two of the ladies took me to walk between them, leaning on their arms. My friends and acquaintance were greatly astonished, never expecting to see me alive again.

I may safely assert, to the credit of my numerous friends, that every thing humanity could suggest was done for me. I was strongly urged to follow my botanical pursuits, the constant delight of my mind. The kind treatment I experienced quickly restored me to society again, and gave me a heart for the study of the laws of life and health. To the above circumstances may be traced the unerring hand of Providence, in snatching me from the brink of the grave, and making me the humble instrument in his hand of inventing a new system of medical discipline, far surpassing every other employed in any age or country, for curing and alleviating the complicated diseases of man, and lessening the bulk of human woe. I went on travelling through the United States, the West Indian and Spanish colonies in the pursuit of botany. I sent large collections to Josephine Bonaparte, the king of Prussia, and some of the British nursery-men. The study of botany, horticulture and agriculture, and the physical properties of plants, with their specific action on the human body, were my constant theme. I received the most kind treatment from the presidents of the United States, Messrs. Jefferson and Maddison, and from

De Wit Clinton, late governor of New York. They were most anxious to benefit by my travels and observations, and I was equally anxious to benefit by their most extensive knowledge on political and moral economy: Governor Clinton particularly exerted himself to the utmost to diffuse the blessings of education amongst the inhabitants of New York,—the only basis on which true greatness can rest. Like Solomon, he raised his voice in the cause of practical wisdom, and recommended its most earnest search. He was surrounded by agriculturists, horticulturists, and scientific men. He invited me on all occasions to attend his meetings, and introduced me to his numerous scientific friends from every country. By our united knowledge of botany and the laws of nature, we raised the State to such a pitch of improvement, as trippled the natural productions in the short period of fifteen years. Being so much engaged in the natural improvements so necessary to ameliorate the condition of man, it assuaged my grief. He constantly urged me to fresh exertions, and gave me letters to friends in the various parts of the country, to render me every assistance in their power.

In 1814, I came to England with a large collection of plants, seeds, etc.; the late Lord Summerville was anxious to obtain all the information he could on horticulture, agriculture, the diseases of the stock, and the improvements going on in the American States and Canada; and that I should begin a farm for the purpose of collecting all the fruits, grasses, staple articles, dyes, stuffs, medicinal plants, etc. He obtained for me a grant of two thousand acres of land in Upper Canada, and my mind became much impressed in following up the plan. I made a large collection of the various grains, grasses, roots and fruits, for the improvement of Canada; also a number of stills, retorts, presses for extracting the oils and dye stuffs, and utensils for the cultivation of the soil. These I shipped at Greenock, for Quebec; they cost me upwards of six hundred pounds, including the various expences.

But the inscrutable providence of God had other, and more important works for me to do, than the cultivation of the soil; for on the day previous to the ship's sailing, I fell from the deck of a large ship into the hold, and injured the lumbar vertebræ, and also my whole body; I heard the captain observe, he would warrant *I was as dead as a herring*, when descending to raise me up; they took me to the hotel. In my passing, every thing looked green; and not until I was bled did any thing appear natural. A number

of the merchants in Glasgow who were much interested in my undertaking, on hearing of my misfortune came to see me, and procured the first surgical aid, and the best of attention. I was kept suspended in an easy chair for a month, as I could not lie in a horizontal position, nor bear pressure on the vertebræ of my back. When I received sufficient strength, I could walk backwards and forwards, but could not turn round. Before I recovered, all the Quebec and New York ships had sailed. I therefore took my passage for Boston; and on my arrival at New York, found the merchant that I had entrusted my concerns to had failed; by which I lost all my money, and found myself worth only eighty dollars, and quite unable to work. I proceeded to Quebec; the person to whom I had entrusted my things, in order to save expence had put them into the government stores at that place. The store took fire the same evening, and the whole of my property was destroyed. The news of this calamity was too much for my exhausted spirits to bear. I was obliged to relinquish the taking up my land at that time, as I had not money to pay even for surveying it. I therefore turned my attention to my favourite pursuit, and gave lectures on botany, horticulture, agriculture, and the physical powers of plants; more particularly as applicable to the purposes of life, viz., food and medicine. I lectured in Quebec, Montreal, and Kingston, and in most of the cities in the States from New York to Savannah, to the most numerous classes ever known in that country. I began a course of experiments, which I continued for three years, to ascertain the specific action of vegetable substances, on dead and living animal matter. I dissected the various organs and put them into separate glasses, put a portion of the juices of the plant into each glass, and raised the temperature of the room to blood-heat; and was quite astonished at the preservation of some organs, and the destruction of others. I had the most extensive opportunities of administering the same herbs to animals and human beings; and uniformly observed the same specific action take place on the living body, although not to the same extent; which clearly pointed out the erroneous views of Dr. Cullen's theory of medicine.

To those who are under the dominion of the passion of *grief*, I would tender the following plain and practical admonitions; having found their advantage in my own experience, I would impress them the more forcibly upon my readers:—Seek out some useful employment; this will relieve the mind more than all the ingredients in the

apothecary's shop. The mind also needs variety; this nature has provided: if the book of nature be examined, the objects calculated to relieve the mind are without number. The benefit, under God, derived from travelling, from the study of the sciences, of the arts, or from writing on subjects calculated to interest the mind, is incalculable. These are so many fountains of consolation, to which I earnestly recommend them to apply who are ready to be borne down by the *passion of grief*. All this I have experienced. As the body cannot be healthy without exercise, neither can the mind without employment. As indolence nourishes grief, activity and diligence must have a natural tendency to remove it. Brooding over calamities is most injurious, and therefore ought to be carefully avoided. Unspeakable benefit is derived from mingling with cheerful, affectionate friends. Reciprocal kindness has done much to dispel the dark clouds of despondency and grief. Happy is that man who, in addition to the use of these salutary means, lifts up the eye to that Divine Being, "from whom cometh down every good and perfect gift."

I have dwelt long on the subject of *grief*, that society may benefit by my experience, in conquering that destructive passion.

OF FEAR.

The influence of *fear*, both in occasioning and aggravating diseases, is very great. No man ought to be blamed for a decent concern about life; but too great a desire to preserve it, is often the cause of losing it: fear and anxiety by depressing the spirits, not only disposes us to diseases, but often renders those diseases fatal which an undaunted man would overcome. Sudden fear has generally violent effects; epileptic fits, and other convulsive disorders, are often occasioned by it; hence the danger of that practice so common among young people of frightening one another; many have lost their lives by it; and others have been rendered miserable for life by frolics of this kind: the mind may easily be thrown into such disorder, as never again to act with regularity.

OF PRIDE.

The passion of pride has a close affinity to self-conceit, but is less confined to self-endowments, and is a relative to personal vanity. The proud man may indeed have the same preposterous estimation for some supposed gift of person; but the grasp of the passion does not terminate here, for he carries the same estimation to every thing that, in the remotest degree, appertains to himself; and is hence as vain of

his birth and family connections, his wealth, his estates, his country, his office, his honours or his religion; and consequently is liable to more numerous mortifications, and is in fact more frequently mortified, than the mere egotist. I have had numerous patients completely deranged from ungovernable pride: they are most frequently amongst the higher orders of society; for as those in the loftiest grade have the cup of intoxication offered to them, and drink deepest of its contents, it is amongst kings, ministers and courtiers we must look for the most striking instances of the effects of the malady. Many a crown has been won by good fortune: and that which has been preserved by moderation, has been lost by the delirium of pride and vain glory; of which the history of Demetrius of Macedonia, furnishes us with one of the most memorable examples; who, in his disgraceful fall, was obliged to abandon, among the idols of his heart, the unfinished robe which was to have hung over his shoulders—a magnificent embroidery of the sun, the moon, and all the stars of heaven; that was to have represented him as the sovereign lord of the whole. What a terrible example we have of the would-be great men of the earth in our own day: what a dangerous principle they stand on: what danger there is in fostering that passion in our nervous state of the world: the popular adulation paid to them must be attended with infinite danger; and still more, when it proceeds from hypocrites. They would do well to read "Goldsmith's Logicians Refuted:" they would know how to treat such buffoonery; and enable them to subdue that most contemptible of all human passions—pride.

There is another kind of mad people opposed to the above: they are insensibly mad, and know nothing of it: such as affect to contemn praise and glory, and think themselves the most free when they are the most mad: they contemn the world, contemn themselves, contemn titles, honours, offices, and yet, in that contempt, they are more proud than any man living. They are proud in humility; proud, in that they are not proud: they crawl about preaching up humility, and seem to be dejected and humble in their outward carriage, while inwardly they are completely bloated with pride, arrogancy and self-conceit. They are most intollerant to any one who happens to think differently from themselves on any subject, particularly that of religion. They appear to have vanity enough to suppose themselves intrusted with the whole mysteries of God, while they are consummately ignorant of the laws of creation and providence. A better description of them cannot be given than by our Lord in his

denunciation of the Scribes and Pharisees, which they would do well to read, and see if their general conduct in life is agreeable to the rules laid down.

I might have filled a volume on the passions. The preceding lengthened extracts are really necessary, in order to shew how far fever, and many other diseases, may be excited by the passions.

The passions have great influence, both in the cause and cure of diseases; but how the mind affects the body will, in all probality, ever remain a secret. It is sufficient for us to know, that there is established a reciprocal union and influence between the mental and corporeal parts; and that what injures the one, disorders the other. Though wise men in all ages have observed the inseperable connection that exists between the mental and corporeal parts, yet we have fanatics or madmen, who are constantly endeavouring to persuade us we have no soul; while others, equally mad, are endeavouring to persuade us we have no body; or, at least, if we have, it is such a mass of corruption as to be quite beneath our notice.

They have totally forgotten, *we are to glorify God in our souls and bodies, which are his.*

Of all diseases incident to mankind, those denominated nervous or mental, are the most complicated and difficult to cure. A volume could not be sufficient to point out their various appearances; they imitate almost every disease, and are seldom alike in two different persons, or even the same person at different times. Proteus like, they are continually changing shape; and upon every fresh attack the patients think they feel symptoms which they never before experienced. Nor do they only affect the mind, but the body likewise suffers, which is thereby rendered weak and peevish. The low spirits, timourousness, melancholy, hypocondriasm, indigestion, spasm, epilepsy, costiveness, flatulency, and fickleness of temper, which generally attend nervous disorders, induce many to believe that they are entirely diseases of the mind; but the change of temper is rather a consequence than the cause of nervous diseases.

In addition to the before-mentioned diseases, a long catalogue of other afflictions of the mind, and more particularly insanity, with some awful disorders which are increasing to a fearful extent, might have been taken notice of; but the limits of this work will not admit of it.

CHAPTER VII.

Diseases generally produced by bad Air and Water.

THE object of this work is to prevent diseases, both of mind and body, by pointing out their causes. I have been particular in pointing out their effects on my own constitution, to prove the correctness of the doctrines which I have reduced to practice, and with so much success and on the most extensive scale, more particularly in Britain and America.

I consider nearly all our diseases to be produced from the following causes :—

First, from bad air.

Second, from impure water, and other poisonous drinks.

Third, from diseased, poisonous and unwholesome food.

Fourth, from attacks of animalculi and insects.

Fifth, from narcotic, acrid and corrosive poisonous drugs.

The name of poison, is applied to any substance which, when taken internally in a small quantity, or applied in any manner to a living body, depraves the health, or destroys life: the truth of this has been acknowledged by all wise physicians in former ages. It is my belief, that neither the passion of grief, nor any of the other passions, would have taken so strong a hold of my mind, had not my body been previously diseased. I conscientiously believe, that an instance of the violent affections of the mind taking place cannot be produced while the body is in a sound state; and that all constitutional diseases are produced from a depraved appetite, and a depraved appetite is produced from the above named causes. Not denying the doctrine of hereditary disease, diseased or poisonous food will produce diseased animals and people. That they will in turn produce a diseased progeny, is one of the incontrovertible laws of nature.

The first thing to be taken notice of in producing inflammation is, bad air.—Whatever be the component qualities of pure air, it is indispensably necessary to vegetable and animal life. To enter into all the visionary theories which have been advanced on the subject, would be a waste of time, as no two agree on its chymical results. The fountain

of life, and the materials of which the air is composed, like the tree in the midst of the garden of Paradise, forbid our approach. Air takes parts of most bodies with which it comes in contact; and close to the earth it is often so replenished with a noxious quality, as to cause immediate death. Hence the folly of attempting to give a correct chymical result. The less perceptible influences of bad air prove more generally hurtful to mankind than is at present known.

It may be as well to endeavour to point out some of its bad effects. Air becomes noxious in many ways. Whatever greatly alters its degree of heat, cold or moisture, etc., renders it unwholesome. For example; that which is too hot retards vegetation, and makes it less fit for food; it dissipates the watery parts of the blood, increases the bile, renders the whole humours parched and thick; hence proceed bilious, putrid and inflammatory fevers, cholera morbus, atrophy, etc. Very cold air obstructs the perspiration, constringes the solids, and condenses the fluids. It occasions rheumatisms, coughs, and catarrhs, with other diseases of the throat and breast. Air which is too moist destroys the elasticity or spring of the solids, induces phlegmatic or lax constitutions, and disposes the body to agues or intermittent fevers, and dropsy. It is a most ridiculous and pernicious custom to have jails, hospitals, slaughter-houses, burial-grounds, and many other nuisances, in the centre of large cities; pernicious vapours exhaled by them and held in suspension by the air, render it very unwholesome. Hence many unhappy persons confined in jails, not only contract malignant fevers themselves, but communicate the same to others. The wretched hovels inhabited by the poor in cities and large towns, are little better than jails: these low dirty habitations are the lurking-places of bad air and contagious disease. Such persons as live in them seldom have good health, and their children are often affected with scrofula, and various inflammatory diseases: if they escape those disorders which are incident to children, they but too frequently contract various chronic affections which embitter the remainder of their miserable lives. It would be a great benefit to the community, when cities and towns are being laid out, if care and attention were paid to the health of the poor. Air which stagnates in mines, wells, cellars and other confined places is extremely noxious, and ought to be avoided as the most deadly poison: it often destroys life as quick as lightning. Before the well-cleaners venture into the well, a red hot cannon ball should be slowly let down till it reaches the water, and then dropped to the bottom;

half an hour after which they may descend without danger. In the low swampy country of Carolina, I have seen the putrid gasses evolving from putrid animal and vegetable substances ignite, and destroy the lives of animals and men. Nothing will more effectually destroy noxious gasses and putrid exhalations than lime. Linnæus observes, that in many swampy countries where the remittent fever and agues prevailed, by liming the swamps they became perfectly healthy. In Holland where the land is low, and swampy, by liming the land, and using carbonaceous earth, marl, wood-ashes, chalk, and other alkaline substances and salts, they have the finest clovers and grasses in Europe. Their butter and butcher-meat is at the present time superior to that of any part of Europe. Forests where there is but little underwood, sweeten and soften the air. We have decided proofs of the beneficial effects of such air on diseases of the chest and lungs, and on patients who resort to Bayswater, and other places contiguous to Kensington Gardens, where there is so large a body of trees without underwood. From the extensive observations that I have been able to make for ten years on a great number of my own patients, I have no hesitation in pronouncing the air of Bayswater to be equal to any in Britain, for the relief and cure of consumption, and other diseases of the chest and lungs. The air of pine forests in a warm climate, is highly beneficial in the cure of the above complaints.

I have recommended a number of consumptive persons, and those afflicted with other disorders arising from a scrofulous habit of body, to go to the pitch-pine forests in South Carolina and Georgia, where nothing but the pine is burned for fire-wood. The effects produced on the patients were truly astonishing: the tubercles formed on the lungs were almost immediately brought to a suppuration, and discharged their contents. But what more astonished me was, that the secretion of puss immediately stopped, when the patient made a rapid progress towards a state of convalescence. The powerful effects of the air, saturated with a resinous effluvia arising from the pine-trees, as well as that from the burning pine, restored their lungs to a degree of health and vigour far surpassing any thing I ever saw effected in Europe. Many that I have recommended to the above situation were more than half gone in consumption: many were not able to walk from their carriages to the packet without assistance, and nearly the whole recovered. Many of the residents of Charleston were afflicted with consumption when they came from the Northern States, who are now enjoying excellent

health; and, in many instances, they live to a good old age. This is a proof of the good effects of the evaporation of tar and resin in the hospital in Russia, as used by Dr. Crighton, with so much success.

At my Vapour-Bath Establishment in Charleston, where my alterative medicines and rules of diet had been strictly attended to, in conjunction with the bath, Dr. Holbrook asserts, that in fifty weeks (being the time the bath had been established), 43 cases of consumption, 13 of asthma, 13 of debility, and 580 cases of varions affections, most of which were chronic cases, were cured by those means. The Reports may be seen at my house in London, and at Bayswater.

Persons who go to that country ought to take servants of delicate health, as they would be benefited; on the contrary, persons in full robust health, are liable to take the country fever.

The second thing to be taken notice of in the economy of life is water, as being absolutely indispensable to the production of vegetable and animal life. It is a powerful solvent, and will act upon decayed vegetable substances when assisted by heat and air, as also upon minerals and earths, and is absorbed by the roots of vegetables, together with the substances, which it holds in suspension or solution. The substances are again absorbed, or disposed in the formation of the plant: every plant, according to its nature, absorbing such substances, if in the water, as are agreeable to its nature.

If the soil do not contain substances agreeable and necessary to the formation of the plant, it will become sickly and will not thrive on such soils; water is no less necessary for the formation of animals, and the preservation of health, and the cure of disease. Our Creator has ordained that plants should contain in their composition, in a far more refined state, all the elementary substances necessary for the formation of man than there are minerals and earths; thus clearly shewing the propriety of confining ourselves to the use of vegetable substances, whether as food or medicine; and making the study of those plants which possess the powers for preserving our health and strength, both in body and mind, one of our principal occupations in life: as water, when pure, is the vehicle for carrying good substances into the body for the preservation of health; it is also equally capable of conveying bad into the system, and causing premature disease.

It is true, that mineral waters have been beneficial: this

arises from their powerful action on the system. The same benefit would have been derived from a judicious administration of the vegetables containing the same sort of substances that were held in suspension by the water, without the risk of doing harm, as the crude minerals and earths are not so well suited to the constitution. An ounce of pure or distilled water, will hold fifty different substances in suspension that would destroy life: this circumstance clearly points out the danger of using water that passes through the poisonous substances contained in the earth. A meeting was held about three years since by Noblemen, Gentlemen, Physicians, and others, to take into consideration the bad quality of the water which the Metropolis is supplied with. I cannot do more justice to the subject than to reprint an article which appeared in the periodical press of that period.

"An almost fastidious attention to cleanliness has long been the boast of Englishmen. At the filthy streets or houses,—at the dirty habits, the personal foulness of too many of the inhabitants of other countries, the nice Englishman starts back in abhorrence. Yet, in the very heart of his empire, has he permitted, still permits, an abomination at which his gorge ought to rise with unutterable loathing. Will it, in later years, be believed, that, in the refined nineteenth century,—in the period when commerce, arts, literature, every thing that distinguishes the intellectual and polished man from the ignorant and brutish savage, had risen to an eminence to which the history of the world could afford no parallel,—will it, can it be believed, that at such a time the inhabitants of the proud capital of that proudest of empires, Great Britain, debased themselves by an uncleanness at which the lowest savage would have shrunk back with detestation? Will they believe that their food was cooked, that their drink was taken, from the horrid gulf into which from 139 common sewers were belched forth the blood and entrails of thousands of slaughter-houses,—the poisonous waters from manufactories,—the filth from ten thousand stables,—the excrements of a million and a half of human beings,—the verdigrease of ten thousand copper-bottomed ships, which is rapidly decomposed by the noxious gasses contained in, and held in suspension by the water. Yet this is the horrid fact! To deny it is impossible. Every man's eye may bear witness to the disgustful deed! And yet it was asserted in the House of Commons, that because no case had been made out in which actual death had been the undoubted result of the drinking from this hideous cess-pool, the water might still be not unwholesome, and of course not unfit for use.

This is truly a logic well worthy of the narrow-minded opponent of whatsoever is enlarged and liberal in politics. Even if it could be proved to be not pernicious to our health, it is utterly degrading to our natures. What!—feed on excrement! and continue the beastly repast, because we do not die in digesting it! Was not the knowledge of the simple fact, that, into that stream from which we drank, the slaughter-house and the privy disgorged themselves—was not this knowledge enough to make men abandon the abomination, and seek, at whatever trouble, whatever cost, for a water that would be, even if not more healthful, at least not loathsome to our very natures. Oh, no! we are to be taught that this is very foolish and fastidious: that to object to drink from the slaughter-house, and the water-closet, provided only we can be made to believe that the hell-broth is not unwholesome, would be very silly, very affectedly nice, perhaps very unphilosophical. We are not to heed the taking again into our stomachs, in a diluted form, that which the bowels had discharged, provided it does not disagree with us, provided it does not actually kill us!! And so, forsooth, after the composition,—to which the witches' cauldron in Macbeth was a delicate mixture,—had been made universally known; after our stomachs, startled at the horrid draught, had made us as with one voice cry out for the remedy,—we are told to be patient, to wait; the chemists and the physicians shall examine the waters; they shall prove by tests whether the liquid is, or is not, deleterious. Never mind the gas-works, the factories, the slaughter-houses, the stables, the necessaries; it is all very nice for nice-nosed ladies, and fastidious, nervous gentlemen, to affect or to feel nausea at such mixtures in their beverage, in the water with which they cook their food, make their tea, and lave their delicate faces and bosoms;—in such persons, a little weakness and feminine niceness may be excused: but, gentlemen of London, who join with them in so foolish a complaint, reflect that you are men, and philosophers; from you we expect higher feelings, and more liberal notions. Health is undoubtedly a blessing of the utmost importance; for without health you could not attend to the business of the day, or enjoy the pleasures of the evening. If, therefore, our chemists and physicians shall exhibit proof of the insalubrity of that noble river, why assuredly we will consider of a remedy; but, for the squeamish complaints raised by certain weak-minded persons, against the animal matters of whatever sort which may be discharged into the stream aforesaid, we trust that your good sense and manly

habits will despise and silence them. Philosophers, and you gentlemen are philosophers, know well enough that all animal matter is alike composed of certain simple elements: and what, therefore, can it signify whence that matter has come, or in what shape it had previously existed? Then, gentlemen, drink on. It is all very true that the river swallows up the garbage of thousands of slaughter-houses —but what of that? The daintiest of the complainers will eat beef and mutton; and we all know that the blood and entrails form a portion of those same animals which they condescend to masticate. It is all true enough that from one hundred and thirty-nine common sewers are spewed forth the excrements of some myriads of horses and cattle, and of fifteen hundred thousand of human beings: but, gentlemen, *we* know, and *you* know, that dung is nothing more than animal matter, composed of elements precisely the same as those which form the animals that we eat, and call luxuries: why then this fantastic squeamishness? this affectation of niceness, of cleanliness, of delicacy? Men of London, gentlemen and philosophers, drink on, therefore, and wait with patience till we can be satisfied whether your beverage is likely to kill you or not."

Such is the *true meaning* of that measure which, esteeming as nothing all the delicacy of our natures, would teach us that in the unwholesomeness, alone, of our water we should place the test of its fitness for our use.

I have been frequently told that the tide carries off the filth above mentioned that runs into the Thames. So far from this being the case, it keeps it in constant agitation from Richmond to Twickenham, without its being carried away by the ebbing and flowing of the tide; and when combined with food, produces in weak stomachs the most active putrefactive fermentation; causes inflammatory diseases, and indigestion with its painful attendants, particularly when mixed with the provisions hereafter mentioned. I have no doubt of its being one of the principal causes of the premature dissolution of thousands.

I have had many opportunities of seeing the diseases produced by water, after having travelled over a great portion of the globe, and observed the bad effects produced by it, particularly in New York and other cities of America, where I conscientiously believe it contributed as much, if not more than any other substance, to produce the yellow and putrid fevers. These diseases, which yearly caused the inhabitants to desert the cities, since they have got good water have ceased. There is no place in the world that

could be better supplied with water, and at less expence, than London. This might be done by bringing the Thames water from above, where the tide ceases to flow, by means of a covered canal, and then raising it into reservoirs for the supply of the west end of the town. By these means we should have the finest supply of wholesome water, and in great abundance. Had the companies been compelled to adopt such a system for supplying London, many thousands would have suffered much less bodily pain than they do now.

There is sufficient money raised yearly in London for the support of the poor that are able to work, who ought to be employed in bringing the water into London: two years' poor rates would accomplish the object.

To give the reader some idea of the dangerous consequences of drinking hard and putrid waters, I will enumerate a few of the long catalogue of diseases observed by the most eminent practitioners of ancient and modern times.

Hippocrates observes, "In countries where the inhabitants are constrained to use the stagnant and putrid waters, the belly and spleen must in such persons become diseased. A train of evils is the consequence of the use of such waters:—marasmus, dropsies, fluxes, agues, peripneumonia, insanity, abortions, stranguary and nephritic complaints." Hoffman speaking of the quality of the water, says, "Hard are most injurious to the viscera, and in particular to the spleen, as being very vascular; and by its stagnating in its small vessels, the whole gland is easily raised into a large tumour. It has been constantly asserted, that scrofulous tumours of a great magnitude are indigenous from the use of hard and rough waters. Putrid waters are chiefly to be avoided; which not only corrupt the air by their pestilential exhalations, but are likewise capable of producing putrid diseases and fevers."

I have had much intercourse with the American Indians; and one of the many things that surprised them was, how man could live after he had drank so freely of bad water. The use of pure water is of the first importance to people in health, and indispensable to the sick.

It is generally known that the adulteration of spirituous and other fermented liquors has arrived to a criminal extent; I refer my readers to a work called "Death in the Pot," and another called "Doings in London," for a description of poisonous drinks.

CHAPTER VIII.

Diseased and Unwholesome Food.

In my extensive travels and observations in the West India Colonies, the Spanish Main, the United States and Canada, I have found the herbage produced from rotten timber to cause disease in animals; and putrid, malignant and bilious fevers in the hot season.

I found the farmers, when clearing the ground, were in the habit of burning the timber; I told them it was bad policy, as the rotten timber would make good manure: they confessed the fact, but observed, that the gross bad herbage and provisions produced from such manure would never fail to induce the above-named diseases. They also informed me, the ashes of the wood were absolutely necessary to destroy the pestilential exhalations which arose from forest-land that had never been cultivated. This is a lesson for our farmers and landlords, who have the best opportunity of sweetening the natural productions of the earth, by mingling their manure with lime to destroy its noxious qualities: they however, with few exceptions, are covering their pasture fields with recent manure, highly charged with its noxious properties, which produce myriads of poisonous plants and insects, giving a gross unwholesome quality to the grass, which a small quantity of lime would have prevented. The animals, from such feed, become diseased and unfit for food, as the experiments mentioned hereafter will prove. Another evil arising from recent manure, on uncultivated land, is raising potatoes and grain; they receive the bad properties of the manure, which renders them unfit for food. In order to prove my position, let the farmer raise an acre of wheat manured with horse manure, another with cow manure, a third from the sewers of London: grind the wheat, separate the starch from the gluten, dry and set fire to it: he would soon be able, from the smell, to distinguish which manure the wheat had been raised on; but no such scent would be discovered, had the manure been sweetened with lime; which is sufficient to point out to a mere novice, that the application of recent manure is destructive to health and life, and the evil consequences arising from it have been acknowledged by wise men in former ages. Flour, when raised on such bad manure as described, will not keep; but, on the con-

trary, when produced on good land properly manured, will be found to keep for a great length of time; of which I shall give a proof in correctness of my statement.—In the year 1816, in a lecture I delivered at Utica, in the Western part of the State of New York, on horticulture and agriculture, I pointed out the necessity of securing the flour in air-tight barrels. About eighteen months since I purchased a quantity of flour in the London Docks, that was ground at Rochester, near the Lake Ontario, and branded in 1826 by the inspector of New York. I sold some of it to several of the nobility: they pronounced it to be the best they had ever eaten. The barrels were all air-tight, and I believe the flour would have kept sweet for a dozen years to come. Here we live in a fine country, but not a quarter the labour bestowed on it that ought to be: we have more money and means to improve it than half the countries in Europe, and yet two-thirds of the people are reduced to a state of poverty and actual starvation; and, what is still more dreadful, affected with cancer, scrofula, consumption, liver complaints, indigestion, erysipelas, nervous disorders, tic doloreux and madness, to a degree unprecedented in the history of man. We pay eight millions a year for the maintenance of our poor—Why is not that sum annually employed in making railways, and improving the soil? A railway laid from London to Edinburgh would reduce the price of living in London more than one-half; it would enable the farmers to bring lime, salt, marl, and the different soils from one part, to compost and combine with others, and fertilize the land to such a degree, that it would maintain more than five times the present population in comfort. Lord Lauderdale supposes Britain and Ireland capable, under proper management, of producing food sufficient to maintain 180 millions of people; I perfectly agree with him.

At the request of several gentlemen and farmers, I subjoin the following papers, detailing experiments and observations I made last autumn, on the diseases of stock, and on the method of cure.

On diseased Cattle and bad Meat.

[Extracted from "The Technological and Microscopic Repository."]

London; Oct. 14, 1829.

Dear Sir:—Permit me, through the medium of your valuable work, to call the attention of the public to a subject which deeply involves the health of the community: I allude to the present diseased state of cattle, and more especially

of sheep. Since I brought the subject before the public, in a work entitled, "New Medical Discoveries, &c.," I have endeavoured to ascertain the nature of the diseases among cattle in various parts of the kingdom; and find, that the principal disease is occasioned by a creature commonly called the fluke, which brings on a mortality amongst horses, and other cattle, and particularly sheep, beyond all other diseases put together.

It were indeed useless to call the attention of the public to this matter, were it not in our power to afford relief and cure. It is the benevolent aim of a certain society, to prevent distress among the brute creation, by the adoption of measures whereby the cruelties of drovers and butchers is prevented; but let me tell these humane gentlemen, that the evil lies much deeper than any thing which has yet come under their notice; for we find that the greater number of the sheep that have been slaughtered for the London market, have been hurried up to London to prevent their dying a natural death! Let the society contemplate the pain which the poor animals must endure, when labouring under diseased liver or lungs, overloaded with fat, and with their feet tender. They are driven to market perhaps one or two hundred miles, and then through the streets of London. After which they are slaughtered in all the heat of fever, and then sold to the inhabitants of London, and particularly among the poor, producing disease among those who eat of them, against the prohibition contained in the laws of God, as delivered to the Jews, and which are full of wisdom and compassion, and evince the care of a Father over a human family.

Now as to the causes of the diseases in cattle whereof we treat. They are produced by the bad policy of our farmers in top-dressing the pasture-land with recent manure, filled with all manner of poisonous seeds and roots, particularly the buttercup, poppy, and spurge—three plants highly destructive to the health of animals, and likewise to the health of all who eat of those animals. The impropriety of top-dressing the fields, and allowing the cattle to pasture on them, will be at once obvious to the reflecting mind. An ox will destroy more grass with his feet, and the superfluous quantity of it which he eats, than would be sufficient to feed at least three oxen, if the manure had been properly prepared and ploughed in for raising grass and hay, and the cattle then fed from the scythe, and which is continually done in Holland, Switzerland, and over the greater part of China. Recent manure will also impart an unwholesome

and disgusting quality to the grass, and which is communicated to butter, milk, and the flesh of the animals that feed on it; and from its stimulating power on the intestines of the animals, it makes them eat three times more than is necessary to their proper nourishment.

A large portion of the gluten, alkaline, and other properties of the grasses so necessary to form the lean of the animal, is the only nourishing part used by man. The great gross animals are selected for market to fill the pockets of the avaricious, without regarding the health of the public. Half the nourishment is left in their dung, while the poisonous oil is absorbed, and deposited in the adipose membrane, until their bodies become a perfect mass of acrid grease. There is little or no nourishment in fat, even when it is wholesome. The use of fat, in the animal economy, is to relax. Animals, as well as men, lose half their strength when they become too fat; excess of fat being a disease, even when the fat is healthy; but when produced from poisonous oils, its effects are productive of more misery to the inhabitants of England, than all the other evils of life put together. Three small animals might be fed on the same quantity of land it takes to support one such as are at present made use of. Sound policy ought to direct our farmers to select such animals as will make more lean than fat.

A large ox will void nearly a wheelbarrow full of manure in twenty-four hours, which must point out to men of common observation, that the policy is not good. Thus we see heaps of manure literally covering half the field over, and not a quarter of the nourishment could have been extracted from the food that had passed through them. The cattle will continue to eat between the heaps of dung, until they can pick up no more sweet grass; when they will begin to feed on the grass produced from their own dung; which must be disgusting to their nature, and is revolting to ours, even admitting the grass to be of the best sorts. But when we reflect that these poisonous plants are naturally fostered and rendered more acrid by the manure, and are then eaten by the cattle, and produce the diseases abovementioned, their effects are terrible indeed, both to animals and man!

How is this evil to be removed? There is no country so abundantly furnished as ours is with chalk, marle, and lime, which destroy the seeds and vegetable substances, and neutralize the most noxious properties of poisonous plants; and are so necessary to renovate poor soils, and to fertilize soils that undergo a regular cropping. "But," says our landlords, "the animals will not eat the poisonous plants above-

named, the wet weather is the cause of disease amongst them; and the sheep are not diseased on dry lands." Neither of which assertions are true; for at the present time four-fifths of the sheep are diseased, and certainly not more than one-fifth of our flocks are reared on swampy land. A most intelligent butcher, who served his apprenticeship to the trade, when on a visit to Wales this summer, took every pains to ascertain whether the disease existed in that country; and the result of his enquiries was, that no sheep were affected with the fluke or the rot, when the land had not been top-dressed.

I have had an interview with a gentleman who has made an extensive tour in the county of Berwick. He informs me, that top-dressing the land with recent manure is never practised in that county. When the land is top-dressed, it is done with compost, prepared with lime and earth, and particularly with carbonaceous earth; and when sown with proper grass, the produce of such top-dressing is eagerly eaten by the cattle, and affords the best milk and butter; and the fluke and the rot in cattle and sheep is never to be met with, except in low marshy lands. The land owners in the country are draining and reclaiming the swamps, and sowing them with proper grass, which will put an end to the fluke and rot in that county. Another important end is also gained by so doing, it having put a stop to the fever and ague, so prevalent in former years. Not a fifth of the misery and disease exist there, which is met with in many counties in England, where such a miserable agricultural policy is pursued. There are likewise other diseases existing among the sheep, to a considerable extent, all over the kingdom, which are produced by the lactescent or milky plants, particularly the euphorbia, or spurge, so frequently to be met with in the stubble and clover fields, especially among the second crops of clover. Among the ignorant and slovenly farmers, where the ground has not been properly cleaned before sowing, lactescent plants are found growing in the greatest profusion, most of which are poisonous in their nature, and hurtful both to animals and man; and, from my experience and observation, I have found them, even when eaten by animals in very moderate quantities, to produce water on the brain, and consumption in the lungs of the sheep; and if eaten to a considerable extent, even to produce immediate death. I have frequently opened these sheep, and found the spurge and other lactescent plants to have been the cause of their death, from their corrosive action on the stomach and intestines, producing a high degree of inflammation and ulce-

ration. They will frequently swell up suddenly after eating much of these plants, which has been usually ascribed to the clover, but which is not the fact; for if the farmers would observe the second crop of clover, they would find myriads of poisonous plants amongst it, and which never fail to produce the disorders abovementioned.

One thing is certain, that the fluke thrives exceedingly while the sheep pasture on the buttercup, and generates its young in the summer months: they acquire their full size in autumn, but if the weather be very dry, the insect does not come to maturity, and frequently dies; but if, on the contrary, it be a wet fall, and an abundance of buttercups spring up, they become strong, and riot on the liver of the sheep to such a degree, as to cause them to become like a rotten apple. These sheep make little or no lean flesh, but are overloaded with a diseased acrid fat. Such is the state of the sheep, at the present moment, in many of the arable lands in England. In the mountainous districts, and many of the old deer parks and downs in England, where the abovenamed plants do not grow, we have the most healthy sheep, and the mutton is proverbially good. There is no reason why most part of the pasture land in England should not produce equally healthy beef and mutton, if the land were properly cultivated, and sown with good grass. In proof of the correct view which I have taken of the subject, I will give the opinions of a few of the most eminent men, for a period of two thousand years, pointing out the pernicious effects of the abovementioned plants, from the time of Hippocrates and Dioscorides to the present time. Dr. Biglow, of Boston, in America, in his Medical Botany, observes, that since the time of Dioscorides, the acrid and stimulating properties of the Ranunculi have been well known. This acrimony resides in all the species, with the exception of *R. auricomus*, which is said to be mild, and perhaps two or three others. It is so powerful, that it speedily inflames or corrodes the lips and tongue, if kept in contact with them. In the nostrils it acts as a violent sternutatory;* and if swallowed in considerable quantity, it brings on great pain, heat, and inflammation of the stomach, and has even occasioned convulsions and death.

Of the *ranunculus flammula*, Murray asserts, that a woman had a gangrene of the arm in consequence of having applied this plant close to the wrist; it made such havoc, that the tendons and bone were laid bare. "It is well known," observes Orfila, Professor in the University at Paris, "that whole flocks have perished, from grazing in the spring in

* *Sternutatory*—that which causes sneezing.

pastures where this plant was common." The *ranunculus bulbosa, ficaria, thyora, arvenses*, &c., indeed all the species are poisonous, with one exception mentioned by Biglow. From the foregoing facts, it may be concluded, first, that these different species of ranunculi, and their extracts, produce a severe inflammation of the texture to which they are applied; secondly, that death arises from them is the consequence of their sympathetic action on the nervous system. Tragus says, that "a bit of this tuberous root when put to a tooth that aches, or into a hollow tooth, will remove the pain." Some authors say, that it breaks those teeth that are hollow, or causes them to fall out. Dr. Salmon, physician to Queen Anne, in his Family Herbal, when pointing out the defects of the crowfoot or buttercup, observes, "They may be applied externally, but none of them should be used inwardly, being but little better than poison, by reason of their ulcerating property." But the most extensive history and investigation, pointing out the destructive effects of the ranunculus, is that of Krapf, published in Vienna, 1766; and among the old practitioners who have recorded instances of its poisonous properties, are Baglivi, Storck, Sennertius, Vanswieten, Tissot, Chesman, Withering, Pulteney, Curtis, Dodonus, Gerrard, Baron Haller, Le Noble, and many more of the most eminent men, whose names adorn the pages of medical science. They were of opinion, that the buttercup hurt the senses and understanding; can we then wonder at the dreadful extent of nervous disorders, and insanity, which we daily witness? I shall conclude with an extract from Linnæus, whose authority I am certain no man will attempt to call in question, as the whole of his writings on this subject were deduced from practical observations and experiments, made before a class of the most celebrated students and physicians that ever emanated from a seminary of learning. In Linnæus's Natural History of the Sheep, the genus, species and varieties are described; many physiological observations are interspersed; a list of those plants are given which the sheep does not eat, amounting (from the experiments of the *Pan Suecus*) to upwards of one hundred and forty species: some are pointed out that are particularly grateful, of which number are the sheep's fescue grass *(festuca ovina)*, and the shepherd's purse *(thlaspa bursa pastoris)*: and there is also an enumeration of such as are highly noxious and poisonous to this animal, as the corn horse-tail *(equisetum arvense)*, spear-wort *(ranunculus flammula)*, Lancashire asphodel *(anthericum ossifragum)*, mouse-ear scorpion grass *(mysotis scorpiodes)*,

wood anemone *(anemone nemerosa)*, and dog's mercury *(mercurialis perennis)*.

Linnæus, in his enumeration on the diseases of the sheep, describes the fluke as being one of the principal, which he describes as follows.

Fasciola.—Body flattish, with an aperture or pore at the head, and generally another at a distance beneath, seldom a single one.

Gourd-worm—FLUKE.

Hominis—Found in mankind.

These are hermaphrodite, oviparous, and are generally found in the stomach, intestines or liver: the intestines are flexous, and the ovaries lateral.

Hepatica.—Body ovate, and sharper before, with a white line down the middle, and spot in the centre.

Schæff. Monogr. won. Egelsch, fig. 1—17.—*Clerk. Lumbr.* p. 141. fig. 2.; and tab. 12. fig. *h. m.*—*Philos. Trans.* 49. p. 248. tab. 7. fig. 1.—*Barbat. Genera. of Worms.* tab. 2. fig. 1. —*Brest. Sammul.* p. 694. fig. 1—4.

Inhabits the liver of sheep, and is often vomited up in brooks: is generally found fixed by a pore at the extremity, and another in the middle of the abdomen, and occasions dropsy and the disorder which is called the rot.

Dr. Nicholl's Letter to Dr. Birch, President of the Royal Society.

SIR:—Among the principal causes of destruction to animal bodies, it seems probable that worms are more frequently concerned than is generally imagined. I have often observed worms in different parts of the body, which I should think could not exist without great disturbance to the economy, and perhaps at last, be fatal to the animal.

Fish are, to appearance, more subject to worms than other animals: the cod often shews small slender worms, coiled up like snakes, on the surface of its liver: and the bley, in our river Thames, about the month of July, is often distressed by a long flat worm, which, by possessing and eating its liver, prevents the fish from compressing itself to that specific gravity, which is necessary to its quiet continuance under the water; so that it is obliged to skip about upon the surface of the water, till it becomes a prey to its foes, or dies suffocated by its being so often out of water, and deprived of that action of the water, which is analogous to the force of the air to us in breathing.

Among the many cases which I have seen, two seems to

deserve our particular attention; as well because they are greatly prejudicial to the farmers, as because, when generally known, they may possibly lead to a method of successful cure.

The first of these is a species of dropsy, incident to bullocks and sheep. In opening these animals when dead of this rot, the liver is always found affected; a small flat worm resembling a sole (and often many of them) is found in the gall duct, by the butchers termed fluke: it is the property of this fluke always to build a wall of stone for its defence, and which wall is ramified like the gall duct within which it is framed. This stony tube, when completed, blocks up the gall duct, and stops the passage of the gall, which thereby surcharging the duct, and dilating the lymphatics, returns again into the blood, and gives the yellow tint to the eyes, which is the first symptom of this disease, and generally precedes the loss of flesh and the swelling of the belly. It seems probable, that whatever can increase the acrimony of the bile, must be useful in preventing this disease; but when the stoney pipe is formed, no method seems capable of promoting its discharge or dissolution.

The other case is termed the husk, and is a disease to which bullocks are very subject while young, for it rarely affects those of more than a year old; the creature is seized with a short dry cough, by which he is perpetually teased; in consequence of which he wastes in flesh, and grows weaker and weaker till he dies.

Upon opening the lungs of a calf dead of this distemper, I found the windpipe and its branches loaded with small taper worms, of about two inches long, which were crawling about though the animal had been dead many hours: and the farmer assured me, that they always found these worms in this distemper, and knew of no method of cure.

I should have great hopes, however, that fumigations either with mercurials, as cinnabar; or with fœtids, as tobacco, properly used, might prove of great service.

I am, &c.,

Nov. 6th, 1755. FRANK NICHOLLS, M.D.

I shall now point out the best method of eradicating the cause of so many evils, which can be most effectually done by ploughing up the fields, particularly our meadows and lowlands, as moist and swampy lands render poisonous plants more acid and corrosive. It is absolutely necessary to drain them, and to take two or three summer crops; then to fallow the land, and give it a good coat of lime

or compost made with lime and earth. The lime will effectually destroy most of the insects; and if the land be properly sown with the white, red and yellow clover, the various species of agrostis, best suited to the soil, particularly the *agrostis decumbens*, commonly known by the name of bent grass; also the *festuca poa*, meadow grass, and sweet vernal grass, all of which are well suited for wet land. If Romney Marsh was cultivated and sown with the above plants, instead of sending so many diseased sheep and cattle annually to the London market, they would not send one; nearly all the animals fattened on that marsh are so diseased, as to render them unfit for human food. An agriculturist called on me a few days ago, and used every argument in his power to prove that Romney Marsh was the best place in the kingdom for feeding bullocks, having so large a supply of buttercups. He also confessed that he had known whole droves of Scotch and Welsh sheep die in a fortnight when sent to that celebrated place,—one of the best cautions to the butchers not to allow sheep imported from Scotland or Wales to be pastured in fields where the buttercup abounds, as it is sure to bring on the most active inflammation in a few days. As all marsh water is filled with a great variety of insects, nothing will so effectually destroy them as lime, which the farmer can use at pleasure, and thus secure his sheep and cattle from sustaining any injury from drinking it. Another important method consists in collecting all the liquor that come from the dung-heap into a reservoir, and mixing it with lime, and watering the grass-fields with it as we do the streets in London with water in the summer season; it would answer the double purpose of killing the insects and fertilizing the soil. Strong lime-water will answer the above purpose; or rolling the pasture-fields with a heavy cast iron roller, which will kill most of the insects. Another important method would be to employ the poor in clearing out the rich soil from the ditches and compost it with lime; it will destroy the poisonous seeds and insects, and afford the most valuable manure for the wheat fields. The increase of wheat would more than compensate the farmer for the expence in preparing it, and by that means a harbour for insects and weeds would be destroyed, and the country also be greatly benefited by the superior quality and increase in quantity of the grain, besides employment for many of the poor.

There is another method, and perhaps a better, than any I have before mentioned, for destroying the weeds and insects, and also for increasing the quantity, and improving

the quality, of grain and grass; and that is, by trenching the land where it will bear it; for when fields have been long cultivated and cropped, they become diseased and sour, where lime has not been employed as manure; and when the grass-fields have been top-dressed with recently putrefied vegetable and animal manure, the evil is greatly increased, as it not only makes the grain and grass unwholesome, but fills the fields with innumerable insects, that puncture the straw, and deposit their eggs within it; and which has in many instances destroyed whole crops, and brought pestilence and famine into the country. Trenching the land has not only the effect of burying the noxious weeds and insects, but it allows the earth to recuscitate itself; so that at the end of seven years it may be again retrenched, in order to undergo its routine of cropping for the seven following years; by which means it will yield a much superior grain, and more than double the quantity it now produces. But it may be asked, How is all this to be accomplished? To which I answer, That the money annually expended in the support of paupers, would of itself be sufficient; and at the same time it would employ them to some useful purpose—in effecting so desirable an object. Were such a policy to be pursued, the burdens of the poor would no longer sap the foundations of their circumscribed wealth, for they would have an abundant supply of the necessaries of life, which with them is almost the only consideration. During my travels in North America, I paid considerable attention to the natural productions of the soil, and their effects on the animal economy. Prior to the establishment of the Boards of Health in the various cities of the Union, great quantities of diseased butcher-meat and other food were brought to market; which, when eaten, produced the most malignant fevers. These spread like a pestilence through all ranks, until the cities were completely deserted. But by the establishment of those Boards, the evil was only partially remedied. I was frequently consulted by members of the Boards on the best means of preventing and curing the alarming fevers in question; and was one of the first who pointed out the diseased qualities of the food and water as being the principal cause. The majority of the Boards being of the same opinion, they obtained an act of the legislature, to seize and condemn all articles of food and liquors that were in any way adulterated; and to deprive those of their licences who attempted to sell them. They also appointed inspectors in every butcher's market in the city, with authority to throw into the rivers

all the meat that appeared in the least degree unsound; and subjected those selling it clandestinely, to fine and imprisonment. Thus the American farmer, seeing that nothing but sound provisions would find a market, was compelled to look to the produce of his farm, and to discover remedies that might prevent the disorders among his cattle, whether arising from poisonous weeds or insects. Numerous experiments were made, and poisons of every description were resorted to; many of which brought on worse disorders than those which they were endeavouring to cure. I tried every thing I could suggest, but without success, until I used salt; this, as well as lime-water, had the desired effect. Also the American *arbor-vitæ* given internally, and the expressed juice of the common elder applied externally, either by itself or mixed with tar, protected the stock from the attacks of flies and other insects. The method adopted by the American farmer is, to give the sheep, cattle, and horses, salt once a week, particularly in the spring and summer months, when they are liable to swallow insects with their food: as it is a well known fact, that numbers of insects will germinate within them, producing diseases in the cattle as well as in those persons who eat them. The animals are so fond of salt when accustomed to eat it, that it is only necessary to lay the dry salt in a trough, when they will eagerly lick it up. In this country, where the sheep are not in the habit of eating salt, it will be necessary to mix it with meal or bran, until they become accustomed to its use. In the spring and summer, when the fluke is breeding its young, the sheep and cattle ought to fast all night, and the salt be given to them in the morning, two or three times a week. It will not only destroy the fluke, but greatly improve the quality of the meat. At this season of the year, when the fluke is full grown, it will be necessary to drench the animals with lime-water twice a week. The best method of preparing the lime-water is, to fill a thirty-two gallon cask full of water, and add to it ten pounds of quick-lime; as soon as the effervescence is over, it should be bunged up tightly, in order to prevent as much as possible the admission of air, and the barrel rolled five or six times, so as to mix the lime and water well by agitation. As soon as it is clear, it may be used, which will generally take place after twenty-four hours. It will keep good for any length of time, provided it be excluded from the air, and should be used immediately it is drawn off. The farmer should provide himself with half a dozen syringes, capable of holding half a pint each, bent at the neck, and having a

small flexible tube, nine inches in length, attached to it by a screw, so as to render it air-tight; a gag is to be put into the mouth of the sheep, with a hole in its centre, sufficiently large to prevent the animal biting the tube, which is to be put through the hole, and passed into the pharynx or gullet of the sheep, and the contents of the syringe be then injected into the stomach. Two men will drench forty sheep in an hour. The *arbor-vitæ* is one of the most powerful vermifuges, and may be given to sheep, cattle, and horses, that are not with young; it is most effectual in destroying the botts in horses, and almost every other insect. The leaves and young shoots are to be pounded in a mortar, with a small quantity of water; the juice is then to be pressed out, and half a pint given to each sheep. A quart should be given to a horse, or cow, on an empty stomach, once in three months, as a preventive; and when the animal is badly diseased, a quart should be given three times a week. Mr. Davis, a butcher at Bayswater, lately purchased a number of sheep diseased with the fluke, in order that I might try my remedies; and the result, which has hitherto proved satisfactory, shall be given to your readers in another paper. I have to observe, that it is my principal aim, at present, to point out the cure and the means of eradicating the fluke, without reference to the way by which it may pass into the liver: but should my time permit, I hope to be able to explain that also in a very satisfactory manner.

I remain, dear sir,

Yours, &c.

To Thomas Gill, Esq. CHARLES WHITLAW.

Dear SIR:—I mentioned in my former letter, that Mr. Davis, a butcher at Bayswater, had afforded me an opportunity of putting my remedies to the test of experiment. For this purpose, I mixed three ounces of common salt in a pint of water, and gave half a pint of it each to two sheep, on the Thursday, and the two successive days; on the following Tuesday, one of the sheep was killed; and, on examination, only three flukes were found in that part of the liver called the hepatic ducts: one of these was quite dead, and of a white colour; and the remaining two were very sickly, and apparently dying. The other sheep was killed the next day, and, on examining the liver, we found eight flukes in it, four of which were dead, and the rest of a green colour, indicating approaching death: and on tracing the gall-duct, from its junction with the liver to its opening into the intestine, we found numerous pieces of flukes in a decomposed

state. The following day four sheep were killed, two of which had been drenched with lime-water and the juice of the *arbor-vitæ;* but in these no living flukes were found, although we found a considerable number in a partly decomposed state. Two other sheep had been drenched with common salt and the juice of the *arbor-vitæ;* but in this instance we experienced great difficulty in throwing the injection into their stomachs, in consequence of the neck of the syringe being too short, and which had occasioned the liquid to pass into their wind-pipes. On killing these sheep, we found the hepatic ducts in each full of flukes: some of them were just alive, whilst others were in a state of dissolution.

Several gentlemen were present at the opening of the sheep, and were highly satisfied at the results of these experiments, being convinced that the fluke might be entirely destroyed by these simple yet efficacious means.

On examining the mesentery of one of the sheep, I was particularly struck with its unnatural appearance; and, on farther investigation, found the glands of it enlarged, obstructed, and affected with scrofula. On opening several of the glands, we found them filled with matter; and in others, it was oozing through small ulcerated orifices, into the cavity of the abdomen. The lungs were also diseased to a great extent, being studded with tubercles and parts of them in a state of decomposition; presenting, as nearly as possible, a similar appearance to those of the human species, who have died of scrofula and consumption. The livers were diseased throughout with a kind of earthy deposition, evidently cellular, and of a bony structure, and which might be truly called bony tumours. We also found a number of hydatids hanging from the mesenteric glands, and around the region of the liver.

Finding Mr. Davis to be an intelligent man, and one who had paid considerable attention to the diseases of sheep, I made particular enquiries of him as to the probable number of them which were affected with scrofula; and was surprised to learn, that one-fifth, at least, of all the sheep bred in the pastures of England, were diseased either in the glands or lungs, and that the evil was rapidly increasing!

Mr. Davis informed some of the more intelligent butchers of my success in destroying the fluke in sheep; but all of them were sceptical, believing that every means had hitherto failed in producing the desired effect. I myself called on a number of butchers, requesting them to come and see the sheep killed; but not one of them attended. One of the

first butchers in London, and who is also a cattle salesman, had indeed requested me to repeat my experiments, and was expected to attend when the sheep were killed; but, for some reason or other, he did not come. And as the experiment was an interesting one, and deserving of attention, so I trust your liberality and zeal for the general good, will induce you to give it publicity.

The six sheep selected for the last occasion, were diseased beyond what could have been imagined; indeed so much so, that one of them was obliged to be killed after the first drenching: and on examining its liver, in order to ascertain the extent of the disease, upwards of half a pint in measure of flukes were found in the gall-ducts. Indeed, the other five sheep were equally bad. After drenching three of them with salt, and the juice of the *juniperus sabina* (savin), and two of them with lime-water, for five successive days, two were killed. In the one drenched with salt, we found upwards of forty dead flukes; some in a state of decomposition; and about forty others in a very sickly state, and crowded so closely together in the hepatic duct, as almost to close that important duct. The other sheep had been drenched with lime-water, and upwards of one hundred flukes, were found in it, more than one half of which were dead, and the remainder in a very sickly state. The three remaining sheep were drenched three times more; and when killed, the two that had been drenched with the salt mixture had not more than two dozen of living flukes in each of them, and an equal number of dead ones, of a white colour. On examining the first portion of the small intestines, called the duodenum, a great number, however, were found in a decomposed state. The last sheep that had been drenched with lime-water, had a dozen of living flukes in the hepatic ducts, which just showed signs of life, and more than twice that number of dead ones; but on opening the gall-duct and intestines, a considerable number were found, partly dissolved. A fairer experiment, or a more convincing one, could not have been made; for, had we found no flukes at all, the sceptical would have said that there had been none in the sheep.

I have lately travelled to Hastings, and paid particular attention to the appearance of the country. The land, generally, is of a stiff clayey nature, and has a cold sub-soil, even to the tops of the hills; much of it requires draining, and a large portion seems totally useless, not so much indeed from the nature of the soil, as for want of cultivation; it yielding only bushes, heath, and furse, with many poisonous

weeds, the seeds of which are blown over extensive tracts of land, thus sowing our fields with plants obnoxious to cattle.

There are indeed a few farms in an excellent condition, and which form an honourable exception to the slovenly manner in which most of the farmers keep their land. In those farms where a more rational agricultural policy has been followed, and improved implements of husbandry introduced, the savings of expence and labour are immense! I observed on one farm, a clumsy heavy plough, dragged along with the greatest difficulty by four oxen, and two horses, with two men to manage them; such a scene, in the nineteenth century, is truly ridiculous! In this farm, the pasture fields were top-dressed, and covered with poisonous weeds; and notwithstanding the land was hilly, yet the sheep were diseased with the fluke in great numbers. I observed them ploughing on another farm, equally stiff and clayey, with only two horses and one man; and yet proceeding with greater ease, and making better work, than those in the first farm; besides a saving of at least two-thirds in the expense, as a horse will consume more grain than is sufficient for the maintenance of six people: and instead of the farm being overrun with obnoxious weeds, it was covered with the finest clover, and the best selected artificial grasses. I examined the sheep and cattle, and believe that there was scarcely a diseased one among them. Such a farmer is truly a benefactor to his country. I inquired the reason why the adjoining farmer did not adopt the same agricultural policy; and was answered, that the want of money to purchase implements was the principal cause, as the church and poor rates, with the expense of cultivating the soil, absorbed nearly the whold produce of the land, and left little or nothing to pay the rent.

In conversing with some of the most respectable butchers in Hastings, they told me, that, with the exception of the sheep that were brought from the few well cultivated farms, and the Downs, there was hardly a sound sheep in the country. That many of the farmers had lost their whole stock, and that nothing but ruin was staring them in the face. A few months will bring our agriculturists into the most deplorable condition. I made a visit to a gentleman who has an extensive farm in the vicinity of Hastings. I was much pleased to see the great improvements he was carrying on, yet the heavy poor and church rates left him nothing for himself! It it a most painful reflection to an individual, that, after laying out thirty thousand pounds for the purchase of a

farm, and expending large sums on it, during a period of six years, and by which its produce is doubled, yet that the above grievous exactions more than keep pace with all his improvements! His sheep and cattle were in the finest condition; and the lime compost which he had laid on the soil was covering his farm with clover and fine herbage. I tasted some of his butter, a week old, and candidly confess it was the best I ever tasted in England. The only consolation or encouragement I had to offer him was, that his posterity would reap the benefit of his exertions.

I will give one example more, of a relation of mine, who purchased a farm for twenty thousand pounds, seven years ago, and has since laid out twelve thousand more for improvements. He has never yet received any remuneration, as the servants' wages, parish rates, and taxes, amount to more than the annual produce of the farm. At my suggestion, his steward has been giving salt to his sheep and cattle frequently during the summer. He had several of the sheep killed, suspected to be diseased, but no flukes were found in them, and the meat was perfectly healthy. He informed me, that he had had but few deaths among his stock; whilst his neighbours had lost, in many instances, more than three-fourths of their flocks; in consequence of which, many respectable farmers have been reduced to want and misery. It is earnestly to be hoped, that government will now interfere, and devise some means of relief. All are agreed that something must be done; and the plan that I should propose would not only relieve the farmers, but ensure an abundant supply of sound meat, and wholesome provisions of every description; besides advantageously employing every pauper in England. Every person in England ought to be employed, and fully remunerated for his labour, which should be fairly regulated by the price of provisions. No proprietor, or landholder, should be subjected to support any one (the aged and infirm excepted) when he is willing to employ them, and give them a fair compensation for their labour: and as a great portion of the land in England is overrun with poisonous weeds, rendered still more destructive by growing on wet land, so I would propose that land of this description should be subjected to draining, and under-draining; as by the moisture, cropping, and top-dressing, it is rendered sour; thus producing many noxious plants, and harbouring myriads of insects. The sheep and cattle, when turned into pastures of this kind, become diseased with scrofula, hydatids, and consumption; and the people eating the diseased butcher-meat produced from

them, must, in their turn, become the victims of similar com-complaints. To suppose that a person could partake of such meat, and that no injurious effects should result from it, is contrary to the laws of nature and common sense! An extensive cattle salesman indeed assured me, that the poor were not diseased by feeding on such meat, as he had frequently sold it to them, and had never observed any bad consequences arising from it. Unfortunately, this individual has ready access to the constituted authorities of the city, and his opinion is likely to have great weight with them. It is to be lamented, that the view he has been led to take of the subject is so much at variance with the health of its suffering inhabitants.

I do not allow my patients to eat diseased butcher-meat, nor indeed the fat of any meat; as the oils of poisonous vegetables are taken into the circulation, and deposited in the cellular membranes, and other parts of the bodies of the animals feeding upon them. When such meat is eaten, it is sure to produce bilious attacks and indigestion, especially in weak stomachs. Hence the thousands of volumes published, attempting to give a reason for their prevalence, without any two agreeing as to their true nature. The Greeks first discovered the scrofula to be produced from the use of pork, swine being animals particularly subject to that disease. A physician of eminence, and who has been a member of the Royal College for many years, assured me he had never heard from any of his medical brethren, nor read in any work, that sheep were also diseased with scrofula. He was therefore greatly surprised when I mentioned the fact to him; and agreed with me, that people eating the flesh of any animal, to any extent, that had been affected with scrofula or consumption, would certainly contract the same diseases. Let any one examine the various opinions and theories which have been from time to time advanced on the subject, and he will at once perceive the reasonableness of all that I have stated, and the just conclusions which may be drawn from the facts, which I have proved to demonstration.

I have made a number of inquiries of other butchers, and they informed me that the statement given on the authority of Mr. Davis, was not exaggerated; as they likewise told me, that one-fifth of the sheep were diseased with scrofula and consumption, independent of those afflicted with the fluke.

I feel myself greatly obliged to Mr. Davis for the expence he has put himself to, and the zeal he has manifested, in

procuring us a number of sheep to experiment upon; and likewise endeavouring to further our object by affording us all the information in his power.

It has been asserted by our first medical men, that scrofula and consumption are incurable diseases, yet I find no difficulty in curing both; and even cancer, in its incipient stage. But I do believe, that I could not have cured a single case, had I permitted my patients to eat such meat as is too generally found in the markets.

For the purpose of clearing our fields, and of ensuring an abundant supply of wholesome food, I would divide the paupers of each parish amongst the land-holders, which would lighten the burden of the poor-rates; and by their labour, the land might be brought into a state in which it would yield double to what it now produces.

In conclusion, the most grateful return I can make to the British public for the patronage and kindnes I have received, is to use my utmost endeavours to remove the causes of their sufferings.

I remain, dear Sir,

Your's, &c.,

To T. Gill, Esq. CHARLES WHITLAW.

On the Causes of the Diseases of Men, Cattle, Sheep, and Horses.

[Re-printed from the *World* Newspaper.]

I published two communications on the above important subject twelve months ago, in the *World* newspaper, and in "Gill's Technological and Microscopic Repository," wherein I pointed out the evil, and method of cure.

In order to acquaint myself more fully with the causes of the immense mass of disease amongst animals and men, I read reports of all the medical lectures in the three kingdoms, as reported in the *Lancet*, and other journals, giving an account of the pathological description of the diseases of the different patients presented to the lecturers for inspection and dissection. The lecturers confessed themselves ignorant of the causes that produced so much misery to the patients.

Hippocrates, the father of medical science, observes, that the man who attempts to cure a disorder without knowing its cause, is like a blind man, or one groping in the dark; he is as likely to do harm as good. The extensive patronage I have received from a liberal public bound me in

gratitude to attempt to discover the causes producing so much misery to men and animals. After treating on the subject in my work, entitled "New Medical Discoveries," as far as my knowledge extended, from information and observation in England and America, I made a tour through Scotland and Ireland, in July and August last. On my landing at Leith, I proceeded to Haddington, and made my business known to some of the most intelligent farmers; they expressed themselves obliged to me for the observations I had published in the *World*, and were most willing to communicate all the information they possessed on the subject. Mr. Howden, one of the most intelligent and extensive practical farmers, kindly invited to meet me such of the farmers and butchers as he thought could afford me the best information on the subject. Much information I received from Mr. Walker, a most extensive farmer and butcher, and a close observer of the causes of the diseases of the stock: he observed, that where the cattle had pastured they would not eat the herbage that grew from their manure, called the teth; but when the healthy sheep were put into the pasture, although the land was high and dry, the sheep would eat the teth, when they would certainly become diseased; in two or three weeks their stomachs and intestines became highly inflamed and ulcerated, which affected their livers and lungs. If any of the cattle had been affected with the fluke, their teth was sure to disease the sheep that eat of it, as the animalculæ of the fluke was passed in great abundance with their dung, which appeared embodied in a glutinous substance about the stems of the grass, (buttercups, and other weeds, near the surface of the manure), and would communicate infection to every animal that eat of it; the water in the brain, braxey, or rot, he believed, was produced from the poisonous weeds covering the fields. The above disorders were hardly known until the seedsmen deceived the farmers by selling them foul seed, which is rapidly infesting the whole country. Many of the farmers had imported English sheep by way of improving the quality of the wool; they imported an abundant supply of flukes with them. He observed, it would require an immense sum of money to put the country into so good a state as it was seven years ago. Mr. Henderson, who had been most extensively engaged in the improvement of stock-farms, fully corroborated the statements of Mr. Walker. He observed, when the sheep pasture was overstocked, they would eat their own teth; it brought on them the worst of all rot, and filled them with flukes. He went to take the

management of an estate near Dunbar, and found they had ploughed up a large quantity of the moor land, which raised the most healthy sheep, and laid it down with all manner of poisonous weeds, which diseased the whole flock. He examined their stomachs, and found the buttercups, scorpion grass, and dog's mercury, to have been the cause of their death. He was of opinion, that no sheep could be raised on that land until it should be fallowed and cleared of all the poisonous weeds, and sown with proper grass. He was also of opinion, that the importation of the foul seed, and diseased stock, was one of the greatest calamities which could have befallen the country; and if not properly attended to, would be followed by the most disastrous consequences to the community at large. He gave much valuable information respecting horses, and other animals, which will be noticed at a future period.

I found Mr. Howden's farm in the highest state of cultivation. I knew the land forty years ago, when I am certain it did not yield a third of what it does now. Such a man is truly a benefactor to his country. I have no doubt many such would be the means of regenerating the country, as the soil round London is better than the soil they occupy; by the same course being pursued, they might raise three times the quantity they now do. The most painful part of their communication was the blind policy and avarice of some of the great land-holders, in parting with some of the best farmers in cansequence of the enormous rent they asked for the farms; and those who now occupy them are in consequence unable to do justice to the soil, and not a few of the proprietors are spending their resources in another country. The crops were good throughout the country. On my return to Edinburgh, the butchers informed me that a large number of the sheep on the cultivated lands in the Highlands were affected with the rot, or what they call the braxey. In the vicinity of Edinburgh, in every direction, poisonous plants have been prospering to a fearful extent for three years past, and affecting animals and people to a fearful extent. Mr. Purdie, an eminent surgeon, put my views on the subject to the test of experiment, in order to ascertain how far calves and lambs became affected by the milk of their mothers; and he is fully of my opinion, that veal and lamb, fed on such poisonous plants, are highly destructive to the health and life of delicate persons, and produce indigestion in its worst form. In order to evince his earnest desire to benefit his fellow-men, he has taken up my baths at Edinburgh; where I hope he will receive that

patronage from a liberal public which may equal his zeal to benefit the afflicted.

Having had a great number of patients from the West of Scotland, afflicted with the most formidable diseases, I went to Glasgow; with feelings of the deepest regret I reflected on the past history of the country, when it produced so healthy a race of people. On my arrival at Glasgow, I was recommended to Mr. Hannah, one of the most intelligent butchers in that place; he fully corroborated all the previous information I had received, and remarked, that formerly the mutton from the Highlands was probably the best in the world; all that is fed on the cultivated lands is diseased. In order to prove the correctness of the opinion that the fluke and poisonous herbage were really the causes of the disorders, a gentleman, who has an estate a short distance from Glasgow, and who sent the worst mutton that came to Glasgow market seven years ago, finding the butchers would not buy his sheep, he set to work, and underdrained the fields, fallowed, pared, and burned, according as the soil would admit of it, used various composts of lime and salt, and sowed pure clover and grass seed. His sheep are now the best that come to Glasgow market, which enhances the value of his property at least two-thirds;—a noble example for the kingdom at large.

On my passage from Glasgow to Helensburgh, I met with a most intelligent gentleman, to whom I communicated the information; he accompanied me to a butcher's shop. On inquiring the state of the sheep stock, the butcher told me he had not killed a sound sheep from a neighbouring nobleman's domain for three years.

I examined the cultivated land more than half-way up to the tops of the mountains, and found them covered with ranunculus flamulæ, the most poisonous of all the species, and the most destructive to the stock; also scorpion grass in the fields of grain was more abundant than the corn; in all the rills of water descending from the mountains, the margins were covered with the dog's mercury;—three plants sufficient to disease all the animals and people that inhabit the country. On the uncultivated lands there is no such thing as diseased stock. The ranunculus flamula is found in wet pastures in England, the moisture on the hills keeping it in its most active state of growth. The scenery around Lochgair is truly grand and sublime; but when we consider that the stupendous mountains are entailing so much misery on their inhabitants, through the ignorance of their proprietors of the laws of nature, one's pleasure is turned

into the deepest sorrow. I took leave of Scotland for Ireland, landed at Belfast, and travelled over the country as far as Stewart's Town, county Tyrone: the whole country presented one continued scene of distress. With few exceptions, one would naturally conclude there were not half people enough to cultivate the soil; the land is fertile beyond any I ever saw, but completely covered with weeds; the pasture fields were covered in most places with buttercups and rag-weed growing three or four feet high; and when the cows were wading through them, their backs only could be seen. Large fields of potatoes were mostly covered with water; a man with only a spade might have let it off in two days, and saved the crop. The potatoes from such fields are sure to affect the people with typhus fever,—a disorder they are now grievously afflicted with. The luxuriance of the weeds among the grain is beyond any thing I ever saw. Sometimes the grain overcomes the weeds, and sometimes the weeds overcome the grain. A large number of the unfortunate inhabitants were literally in a state of starvation, and covered with rags; although inhabiting one of the most fertile countries on earth—May not this be partly attributed to most of the proprietors of the soil being abroad? I went to Dublin, and found the sheep stock nearly in the same state as they are in Scotland and England; on the improved pastures they were mostly diseased. I found the practical remarks I had made on the pernicious effects of recent manure verified to a most awful extent in the mountains near Dublin, where the peasantry are in the habit of raising pigs; they save their manure, and the manure from the house, and put it into the beds and rows of potatoes in a recent state. The potatoes thus manured are sure to give them the typhus fever. The Rev. Mr. Prior informed me it always produced that effect. They had a most fertile crop of weeds. I think Ireland, by proper management, might raise a sufficient quantity of provisions to supply the three kingdoms. I had a letter yesterday from a most intelligent member of parliament, wherein he states his belief, that the buttercup is the chief cause of the rot in sheep; he also informs me that one of his neighbours had two hundred geese destroyed by it. The geese will eat it with great avidity—even pick the roots out of the ground. He does not wonder at the severe bilious attacks of the people after eating geese. Having given a short account of the information I received and observed, in regard to the state of the agricultural districts and diseases of the stock, my next communication will be on the fatal tendency of such

provisions on the community, and the best mode of cure, or avoiding the evil. I hope a liberal press will make it generally known, as much of the evil may be prevented this fall by their means.

CHAS. WHITLAW.

Finsbury Place South; Oct. 6th, 1830.

An enumeration of the Poisonous Plants which grow in British Pastures, and their effects on the Constitution of Animals and Men.

1. *Anemone Nemereso.*—This is a deadly poison. Linnæus observes, respecting it, "Cattle that have been brought from open to woody pastures, and have eaten this plant, were affected with the bloody flux and bloody urine." It affects the milk and butter produced therefrom; and those who partake of it, are affected in the mucous membrane of the stomach, intestines, and lungs, so as to bring on an intense headache and severe inflammation of the nerves, approaching to tic-doloreux, if it be not, indeed, one of the causes of it. Baron Haller states, that in "Kamschatka, the inhabitants poison their arrows with the *anemone*, the wounds produced by which lead to certain death." The woody pastures of England are literally covered with this plant in spring and summer.

2. *Myosotes Scorpiodes*, or Scorpion Grass.—Linnæus found this plant very destructive to sheep. It produces irritation and inflammation of the bowels.

3. *Equisitum Arvense*, or Corn Horse-tail.—This plant brings on sheep and cattle an incurable diarrhœa.

4. *Mercurialis Perpennes*, or Dog's-Mercury.—This is a most powerful narcotic. It first stupifies the animals; and when eaten in considerable quantity, produces instant death. In moderate quantity, it produces a powerful relaxation, which ends in death. Romney Marsh, so famous for the destruction of stock, abounds with this plant; and by it numbers of the inhabitants of this great city are diseased.

5. *Anthericum Osiferagum*, or Lancashire Asphodel.—Linnæus found this plant very poisonous, as well as many others of the Hexandria class—hyacinth, narcissus, snow-flake, crown imperial, and colchicum. The poppy, spurge, cicuta, are all destructive to the livers of animals and man.

6. *Ranunculus Crowfoot*, or Buttercup.—This plant produces inflammation and ulceration in animals and men beyond all other plants together. In Morrison's History of Plants,

Oxford folio ed. 1680, it is referred to thus:—" by the eating of the *ranunculus palustris*, the sheep are killed; therefore the shepherds carefully drive the sheep away, lest, devouring the ranunculus, their entrails should be inflamed, and hence they should die, as is seen in the entrails of sheep which were rotted by this food, as Lobilius bears his testimony against his adversaries." Linnæus speaks of it as one of the most mortal poisons to sheep and stock in general. The arable pasture lands of this country are filled with these poisonous plants; and thus it is that our cattle and sheep are so generally diseased. The sheep which are fed thereon, are diseased in the proportion of nine out of every ten that are fed on the arable pastures of England. Those which are reared on lands which have never been cultivated, such as the downs of England, the old deer parks, and the mountains of England, Scotland, Ireland, or Wales, are sound, and the sweetest mutton in the world. If any one doubts the fact as to the quantity of diseased animals, let him visit the slaughter-houses of this city, and examine the livers, lungs, and intestines of the slaughtered animals, and he will soon be convinced, and cease to wonder at the ill health of the population. As it is well known that more rain falls in the mountainous country than in the valleys, the wet cannot be properly assigned as the cause of the disease in sheep.

In dry seasons, in the months of July and August, the stems and leaves of many of these poisonous plants generally die, leaving the roots in the ground to spring up in the month of March; but in very wet seasons, they continue to grow until severe frost cuts them off; to which cause the bad butter, so universal at this time, may be ascribed. This is another fruitful source of disease. I never knew so many persons afflicted with inflamed and ulcerated stomachs, intestines, liver, lungs and windpipe, as at this season, which I ascribe to the cause above mentioned; and I am convinced, that when the cold weather sets in, the mortality will be most lamentable.

One of the first duties of a chief magistrate must surely be to preserve the lives of his fellow-creatures; and the Lord Mayor of this City should instantly appoint inspectors to examine the entrails of all the cattle slaughtered before the flesh is exposed for sale. The butchers would then refuse to purchase unsound cattle, and the farmers finding no sale for such, would be compelled to root up noxious plants, and to be careful of the food supplied to their stock. At present, unsound animals are sent from all parts of the country to the London market, where they are purchased

with avidity, to the destruction of the lives of the people. A great responsibility belongs to those who fill offices of trust; and if they refuse to pay attention to the duties of their station, the Almighty Father of mankind will not excuse their neglect, when all vain distinctions and flattering titles, which men court with so much eagerness, will be of no avail to him who had no eye to the public welfare. New York, which from 1790 to 1800 was one of the most unhealthy cities in the world, is now proverbially healthy. A Board of Health was established there with full power to destroy all diseased meat and adulterated provisions, and to deprive those who attempted to vend such of their liberty to supply the city, A similar plan should be adopted in London without delay. I earnestly advise the farmers to plough up all the meadow lands they can without delay; poor stock will be scarce and dear, and they will find it their interest to grow corn. A sufficient stock will not be found for the pasture lands in the next season. Of this I am thoroughly convinced.

I will now point out the mode of cure. The farmers in the county of East Lothian, Scotland, have pursued the plan I recommended, to destroy the fluke by turning the sheep to pasture on the salt marshes, where the fluke would be entirely destroyed in three weeks. For consumption of the lungs, when the disorder has been fairly established, no cure has as yet been discovered.

1st. I believe where the pasture is free from poisonous weeds, and a proper portion of lime sown over it in the spring, it will cure sheep and cattle affected with consumption and scrofula in its incipient stage. Water on the brain, braxey, and the staggers, there appears to be no remedy for; but they may be prevented by draining and underdraining the land, and then clearing it of all noxious weeds: this may be done by ploughing and cropping for two or three years.—2nd. By summer fallowing and manuring with compost and lime.—3rd. In order to destroy the roots and seeds of such poisonous plants as may spring from the manure, the farmer ought to be provided with wire sieves so mathematically true that when the grass seed or clover is sifted, it will let through the seed and retain the weeds, or it will retain the seed of the weeds and let through the good seed. It is a shame to see a farmer's clover field covered with poppies. I could, with a proper sieve, clean a sufficient quantity of clover seed from the poppies in half an hour to sow fifty acres of land; besides, the poppy is not only injurious to the stock, but it exhausts the soil. All

grass seeds may be cleaned in the same way.—4th. By trenching the land where it will bear it, it will insure one-half more, or at least one-third more crop, and of a far superior quality, whether it be of vegetables or grain. Where the land will not bear trenching, the farmer should cart on soil and compost it until it will bear it. It is so done in China, even on the surface of rocks.—5th. On fine pasture land, in order to destroy the weeds, sow five cwt. of salt to an acre, more or less as the land will bear it; it will not only destroy the weeds, but greatly improve the quality of the meat, milk and butter produced on it. The salt ought to be sown in dry weather, during the spring and summer.—6th. Where the grass land is not manured with compost made with lime, it ought to be watered with the leachings of the farm-yard, mixed with lime, as we water the streets of London; this will fertilize the soil and destroy the insects. All swamps, such as Romney Marsh, ought to be strongly limed. Such land is sure, without this, to produce an abundance of flukes, the whole of which would be destroyed by a dressing of lime. This would also increase the herbage, particularly the white clover, which is the best herbage.—7th. A boy might be most advantageously employed in rich pasture, to remove the dung from the fields, to collect it into a heap, and mix it with lime and soil: if left on the land, it engenders and supports myriads of insects and poisonous weeds, and particularly flukes. Another boy might be employed in carrying lime-water, or salt and water, in a watering-pot, and watering the spots where the manure was laid. This will sweeten the soil and herbage, and the cattle will eat it with advantage. Nearly the whole of the pasture-land which has been ploughed is contaminated with poisonous weeds, which will disease healthy stock, unless it be prepared as above.—8th. When the land is so prepared, stock ought to be brougnt from the mountainous parts of the country, where their lungs are sound, and plenty of salt and bran given them in case they might happen to be diseased with the fluke.—9th. Abattoirs ought to be established, as in France, where the cattle are slaughtered and inspected. When found diseased, they are not permitted to be sold as food.—10th. Rail-roads ought to be laid for fifty miles from London, in four directions; it would give great facility for manuring the soil with lime, marle, and carbonaceous earth, salt or sea-water, and facilitate the carriage of provisions and merchandise to market at one-fourth of the expense. A rail-way through the centre of the kingdom, from London to Edinburgh, would

lead to the fertilization of the country to such a degree as has not yet been done in any part of Europe. There is money enough, and unemployed half-starved labourers enough, to accomplish this object in three years.

The most important advice that can be given to land-owners is, to do away with those clauses in leases that prohibit the farmer from ploughing up the pasture-land.

CHAS. WHITLAW.

14, *Finsbury Place South; Oct.* 1830.

If any farther proof were wanted to bring conviction to the minds of the public, of the absolute necessity of calling a meeting of the inhabitants of London, to adopt such measures which might be effectual in preventing so great a national calamity, as that which is so grievously afflicting a large portion of the community of Britain and Ireland, and of the city of London in particular, from the use of diseased meat, milk and butter, the following extract from Blackwood's Quarterly Journal of Agriculture, No. 12, February, 1831, will answer the purpose.

On the Causes and Prevention of Foot-Rot in Sheep, by Mr. Dick, Veterinary Surgeon, Edinburgh.

"The foot-rot in sheep is a subject of so much importance to the agriculturist, and the disease has prevailed to such an extent during the last two years, that any apology for offering a few remarks upon it would be superfluous. Indeed, its destructive effects are at any time such as to call attention to this subject; and the difference of opinion which exists regarding the causes which produce the disease, the means of preventing it, and the remedies for it, plainly shew, that the subject is as yet but imperfectly understood. It is well known that there are some pastures peculiarly apt to produce this disease, and these vary to such an extent, that it is with an almost irresitible necessity that the conclusion thence derived is, that the disease is highly infectious. Few have ventured to question this point; and the stubborn facts advanced in support of such doctrine are so strong, that it requires some degree of hardihood for any one to attempt to refute it. Before I therefore venture to give my opinion upon this part of the subject, I shall first advert a little further to the nature of the situations and circumstances under which the disease most commonly makes its appearance.

"The finest and richest old pastures and lawns are particularly liable to this disease; soft, marshy, and luxuriant meadows are equally so; and it is also found in light, soft, or sandy districts. In the first of these it is perhaps most prevalent in a moist season, and in the latter in a dry one; in short, it exists to great or less extent in every situation which has a tendency to increase the growth of the hoofs without wearing them away; and more especially where they are kept soft by moisture. It is so prevalent in fine lawns and pleasure-grounds, that they are, in many instances, reduced in value to a mere trifle as a pasture for sheep: they are said to be infected with this disease; and having once become so, the vicissitudes of seven years are scarcely sufficient to destroy the contagion. A luxuriant herbage, or soft pastures, are equally subject to it; and, in both cases, the disease is increased in a wet season. On examining the feet of a flock, in a short time after they have been placed in what is called an infected pasture, it will be found that many of them are becoming rapidly affected with foot-rot; and that, too, before any matter has made its appearance, and before any of the sheep have been found lame. In some situations, the disease is so rapid in its progress, that in two or three weeks the whole flock becomes affected; and this, it is supposed, is produced by infection. Gohier, a French veterinarian, first applied a piece of horn from a diseased foot, covered with the matter, to the sole of a sound foot, without effect. Secondly, he rubbed a diseased foot against a sound one, without effect. Thirdly, he pared the sound foot, and having applied a piece of diseased hoof, the disease afterwards appeared; but, in this case, the foot got well of itself, and there seems to have been a doubt in the mind of Gohier as to whether it was truly foot-rot or not.

"In conclusion, I may farther add,—as the locality must be familar to every one who takes an interest in the romantic scenery around modern Athens,—that, while the rich pastures which are in the neighbourhood of Arthur's Seat are very subject to the disease, that hill itself is not only almost entirely free from it, but if the sheep when first infected are removed from the low grounds to the hill, they soon get well; it therefore follows, that the disease may be prevented by adopting proper timely measures; and by adopting the principles I have endeavoured to establish, and applying them according to the circumstances of the infected pastures, a considerable stop may be put to the disease; and in many situations, it may altogether be prevented."

I advise those who are greatly interested, to read the whole piece, where much information may be obtained, as regards the extent of the disease. If Mr. Dick will go to the cultivated mountains in the Highlands, which used to produce the most healthy sheep, and where they have cultivated the hills and sowed abundance of the before-mentioned poisonous weeds, he will find the sheep diseased either in their stomachs, intestines, lungs, liver, head, or feet; and many of them dying of the braxey; although the land is much higher than Arthur's Seat. The farmers there are like the farmers here—knowing when the sheep will not hold out long, they send them to Edinburgh to regale the inhabitants. I am truly astonished that Edinburgh, so famed for doctors, professors, philosophers and critics, should permit so monstrous an evil to exist for want of proper investigation: indeed, it is a stigma on their understanding. Take the word of an honest Scotchman, if you continue to live on such fragile materials, your bodies and brains will soon become like the food; and the evil will not end there, but will be entailed on your posterity. Do not ascribe the cause to the interference of providence, but to your own ignorance of the laws of nature. If Mr. Dick and Mr. Blackwood will honor me with a visit when they come to London, I will shew them a great number of the inhabitants dying from diseases of the lungs, liver, stomach, intestines, scrofula, cancer, and the foot-rot, similar to the sheep, and from which they have taken the disorders. If the philosophers of Edinburgh do not remove the evil which is in their power, I shall esteem them as no better than Cato's philosophers.

The following observations on the use of diseased mutton were communicated to me by a scientific member of the late parliament, which will at once expose the wickedness and cruelty of allowing such food to be sold to human beings. During the last autumn his fluky mutton being in little demand at market, he thought he could turn it to a better account by killing the sheep and feeding the pigs on it: as some of the mutton was very fat, he filled a large boiler and made a mess of it with potatoes. However, the hungry hogs were satisfied with the smell; and their appetite, depraved as it was, could not be tempted to partake of that food which their more rational keeper was living daily upon. But the best proof of the injurious effects of bad mutton on the animal economy, is adduced in the following fact, which was related to me a few days since:—

A country gentleman in the north of England, an extensive land proprietor and master of a fine pack of hounds,

had a great number of sheep affected with the fluke; so much so, that it was no unusual thing to have from twenty to thirty sheep dead during the week. A great quantity of this mutton was sold clandestinely, and, as the House of Commons would say, as no case had been made out in which actual death had been the result of such eating, the mutton might still be not unwholesome, and of course not unfit for use. He naturally concluded that if human beings could eat this food with impunity, he might venture to feed his hounds on it, by which he would effect a considerable saving in horse-flesh. Accordingly, some of the fattest of the fluky sheep were killed for the dogs; and in the course of about ten days after the animals had begun to feed on it, a grand hunt was to take place. A great number of sportsmen were assembled around the cover, waiting the arrival of the pack; but the dogs seemed little disposed to join in the hilarity of their masters—the cover had nothing to tempt their eager scent, and the huntsman's hallo had no effect—the hounds stood staring at each other in wild amazement; and notwithstanding every artifice was tried, not one of them would draw a scent. The whipper-in fancying the dogs were sulky, began to exercise his whip; but instead of rushing on to the sport, they staggered off to their kennel, with their backs bent up and their tails between their legs. The gentleman declared, had he fed them a week longer on fluky mutton, every dog would have died.

As the above circumstances must be known to many influential individuals, I hope they will come forward and use their utmost endeavours to mitigate the calamity which is overtaking the country.

From the foregoing remarks, the reader will at once perceive cause sufficient to produce a host of diseases. I might have pursued the subject much farther, in pointing out the pernicious effects of various other poisonous plants; but if the foregoing remarks do not convince our rulers, the situation of the country is deplorable indeed.

I shall next notice some of the effects of the animalculæ of the fluke and insects swallowed by domestic animals and man, with the destructive effects on their constitutions; which, when taken into the stomach, is sure to cause premature death, if not speedily got rid of. They are found in the intestines of sheep—they are particularly fond of nestleing in the gall-ducts, drawing their nourishment from the vena porta and other blood-vessels of the liver, where they breed in shoals. Being a species of the leech, they suck up a lare portion of the blood in its passage through the liver:

they eat their way through the small ducts, and form large excavations in various parts of the the liver, where they form bony tumours, having a cell within, in which they deposit their eggs: at other times they are found in the gall-ducts, which entirely stops the passage of the gall, consequently the ducts become greatly enlarged, dilating the orifice of the lymphatics, whereby the gall and the excrement of the fluke are taken into the circulation of the blood, which gives that yellow tint to the eyes, which is the first symptom of the rot, and generally precedes the swelling of the body, and shews the injurious effect of the excrement of the fluke on their bodies. The corrosive effects of the buttercup on the mucous membrane and points of the absorbents, widens them, and admits the more gross substances produced by their food, along with the noxious excrement of the fluke, which has the power of decomposing the glutinous and alkaline properties of the blood, and passing off the oily parts of the blood, which the more readily passes into the body of the animal, loading it with the poisonous acrid oils; hence the animal becomes loaded with fat, and but little lean; which, when eaten by children, disposes them to all manner of inflammatory and glandular diseases, and deformity; and when they have the small pox, and other infectious diseases, their depraved constitutions are unable to bear up against the assaults of the different diseases, should they struggle through the disorder; but too many are affected with diseases of the chest, blood-vessels, lungs and glands, terminating in scrofulous complaints, and other diseases incident to children.

I might extend my researches into the specific causes of disease until all the poisonous minerals, vegetables and animals that pervade and cover the surface of the globe were described, and their destructive effects on the animal economy pointed out; as every poisonous plant will deprave the health,—and when taken in considerable quantity, destroy life. If the wholesome vegetables so necessary to produce strong and healthy bodies, vigorous and well-regulated minds, were compared with those that injure the body and mind, and bring the individual to a premature end, it would be satisfactorily ascertained that through the ignorance and negligence of man, the poisonous productions predominate to an alarming degree; and that every poisonous plant, mineral and animal, will produce a disorder peculiar to itself; and perpetuate its deleterious effects, until it is either destroyed or its use abandoned. Can we wonder at the extensive catalogue of disease?—Linnæus enumerates not less than three

hundred and twenty-six different species of disease! Linnæus was undoubtedly one of the greatest physiologists that ever lived, and he refers all our diseases to the various acid and putrid ferments taking place in the stomach, and animalcula. When we consider the powers of the various poisonous oils, acids, gums, &c. contained in plants, all assimilated in the stomach, can we wonder at the enormous mass of suffering, crime, and misery existing in the world, when we see the fountain of life poisoned at its source, and the faculties of the mind stimulated, depressed, or totally destroyed by the noxious substances made use of as our daily food. How highly displeasing to God must such conduct be when we consider that he has given us "reason" to discriminate between good and evil. But, alas! the reason of man is woefully perverted: his understanding has become darkened —how great is that darkness!

In my extensive experiments on upwards of four hundred plants, I tried the expressed juice on all the organs of the body separately, raising the temperature to 98°. I was quite astonished at the changes produced by the same vegetable juice when it became diluted with air: how rapidly the destruction of some organs, and the preservation of others, took place. By studying the laws of life and health, in this way, they might be brought to such high perfection, far exceeding the present conceptions of man. Having carefully studied the Mosaic law, as regards the food prohibited, and the beneficial effects of those restrictions on the health of the people; I am amazed at the infinite wisdom displayed in the dietetic code of that nation; and yet we are told by the learned in our days, that many articles of food therein prohibited are wholesome: but this I positively deny to be the case in the climate where the law was delivered. The most of the exceptions, (independent of the hare) as being liable to disease, are equally so in this country, notwithstanding the *hog* is eaten and strongly recommended as good food. I have never seen a case of the *lepra vulgaris* but I could trace it to the use of pork, as well as many other cutaneous diseases. Thirty years ago, pork was hardly used in Scotland, because prohibited by the Word of God; the consequence was, that scrofula and lepra were hardly known:—and happy would it have been for a large portion of the community had they continued to adhere to so wise a lawgiver! for in listening to the counsel of fools they have brought upon themselves two of the most fearful diseases that afflict the human race. Were all the unfortunate victims of the above disorders assem-

bled, what a contrast would it afford to what it was forty years ago, when disease was but little known.

I shall now name a few of the most prominent diseases, and the cause and method of cure. In reading over the various medical lectures in *The Lancet*, delivered at our hospitals, we have long accounts of the symptoms and appearances of the diseases during their progress, and at their post mortem examinations, but not one word about their cause. Hippocrates in vain observes, "How can a man with certainty attempt to cure a disease while he is ignorant of the cause!"

I cannot help making a few observations on Mr. Lawrence's lectures, extracted from *The Lancet*, p. 67, as delivered at St. Bartholomew's Hospital, in 1829. The subject matter they contain is of vital importance to the public. Mr. Lawrence, in speaking of the humoral pathology, observes:—

"I can by no means agree in opinion with those who regard functional diseases as affections of the vital properties, without any reference to the state of the organs. How can we suppose that the function of a part can be altered, when the organ remains in the healthy state? What would you think if you were told by a watchmaker that a watch was perfect in all its parts, but that its movement was affected? But if he should tell you, 'I have looked over the watch very carefully—it does not go well—there must be something wrong, but I cannot discover where,' then he would speak very rationally: and that is the situation medical men find themselves in, in cases of functional disease; they see irregularity, but do not discover what it depends on. In such a case they should conclude that the art is imperfect, or their own knowledge deficient; not that functions can be impaired while the organs are perfect."

Mr Lawrence illustrated the same point, by referring to the tonic and stimulating treatment of affections of the retina, causing impaired vision; to the treatment of fever, grounded on the notion of debility; and on that of dyspepsia, by tonics.

He then continues as follows:—"It has been contended also, that the *fluids* cannot be altered in their properties, except through the medium of some change in the *solids*. Now the fate of the fluid part of the body, with reference to disease, has been very singular. At one period the explanation of disease turned entirely on changes that were supposed to take place in the fluids; and, at a subsequent time, it has been asserted that they have nothing to do in

the production of disease. At an early period, when anatomy and physiology were but little known, the fluids were supposed to be subject, in the living body, to putrefaction, fermentation, concoction, acidity, alkalescence, and to become thick, and thin, and so on. The means of treatment were directed with the view of remedying such alterations. When anatomy and physiology came to be investigated, and the changes that had taken place were observed after death, of course all those notions were put an end to; and from that time to the present, the very term of humoral pathology, which includes this sort of explanation of diseases, has become a sort of by-word of contempt."

Speaking of inflammation, Lecture iv. *Lancet*, p. 137, Mr. Lawrence says,—

"The causes of disease, however various they may appear to be in the great majority of instances, augment the living actions of the parts in which they occur. They are said to stimulate, to excite, to irritate, to inflame. All injuries, and all external irritations, produce inflammations. A great variety of internal causes, which in many cases we cannot exactly ascertain or satisfactorily appreciate, produce inflammation. Again it occurs in certain cases, if we may use the expression, symptomatically: it seems to be the effect, or symptom, of general disorder. Of the diseases which constitute the catalogues of our nosologies, the far greater part consists either of inflammation of particular organs, or of changes in those organs produced by inflammation. There are few diseases, indeed, in which inflammation in some part or other is not either a cause, a symptom, a concomitant circumstance, or mode by which a cure is effected; by which latter, I mean the production of inflammation artificially as a means of removing disease. This is a circumstance peculiar to inflammation, and not belonging to any other morbid affection. We have the power, by various applications to the body, of exciting inflammation, which is exactly similar to that which arises from causes occurring within the frame. We cannot, however, in the same way produce organic changes, such as cancer, fungus, hæmatodes, exostoses. [Lecture iv.] I next come to causes of inflammation, and these include almost all the agencies that can affect the human body. In the first place, inflammation may be excited by all kinds of injuries; whether mechanical, chemical, or of a mixed nature. It is excited by the infliction of wounds, whether they are incised, lacerated, or contused. Inflammation is the consequence, therefore, of surgical operations. It is produced by

pressure on the body, whether exerted externally, or taking place from internal causes, such as the distention or approach to the surface of a tumour or aneurism. Inflammation is produced by the application of strong acids to any of the animal textures; by pure alkalies, and various other acrid matters, whether animal or vegetable: under the former head, we may mention morbific poisons. Again, it is produced by the bites and stings of a variety of insects, and the bites of rabid animals. It is produced by the application of cold or moisture, and by various atmospherical changes, the nature of which we cannot exactly appreciate; and here we find that some such influences are capable of producing inflammation directly. Thus a current of cold air, particularly if combined with moisture, will cause inflammation of the eye. The same, immediately applied to the mucous membrane of the nose, throat, trachea, and air passages of the lungs, will cause inflammation of these parts. Again, the application of cold or moisture, to an external part will bring on inflammation in some internal organ, or in some part remote from the seat of the direct application. Thus, if a person get wet in the feet, he may have an attack or catarrh, or sore throat, or rheumatism. Cold and moisture, and the various atmospherical changes, are thus capable of influencing indirectly the internal and comparatively remote parts. An organ may become inflamed in consequence of excessive exertion in the execution of its natural function. Thus, if the eye be excessively exerted in the observation of minute objects, inflammation may be produced in it. Excessive mental exertion will cause disorder in the head. In the same way, the stomach or intestines, the lungs, or the various other organs, may be immediately inflamed, in consequence of unnatural exertion in the execution of their ordinary functions. The most powerful and general of the predisposing causes, whether of spontaneous or of accidental inflammation, undoubtedly is what is called, in common language, fulness of habit, or what we technically call *plethora* of the system, that is, an unhealthy condition of the frame, produced by taking into the body an excessive quantity of new materials, by indulgence in the pleasures of the table by eating and drinking too much. The natural supply of the frame requires, that a certain quantity of new material should be introduced into it, but persons are in the habit of taking, perhaps, twice or three times the quantity the natural wants of the economy require; the digestive organs are overloaded, and a state of repletion occurs in the sanguiferous system, which receives the new matter from the digestive organs. Persons commit

errors with respect to diet, not only in *quantity*, but in *quality*, and both these are chiefly observed in two articles: that is, animal *food* and *fermented liquors*."

Speaking of idiopathic and sympathetic fever, *Lancet*, page 382, 1830, Mr. Lawrence observes:—

"It is not necessary for me to say more to you on this subject, for the observations I have already made to you respecting the treatment of inflammation, include the treatment of this affection. We regard it only as a sympathetic effect of serious local inflammation, and the means we adopt, in order to remove local inflammation, are equally efficacious in the sympathetic disturbances consequent on that local cause. In other instances, the digestive organs are the parts principally affected; and such cases constitute what some writers have called *gastric* or *bilious fever*. I imagine that to this head we may refer what has sometimes been called *mucous* fever, tenderness or pain about the epigastric region, great thirst, nausea or sickness, complete loss of appetite, or a coated and foul state of the tongue, and a variety of symptoms that are referrible to disorder of the alimentary canal, are the circumstances principally characterizing that form of sympathetic fever which may be called gastric or bilious. Now, Broussais refers the cause of all fevers to the state of the alimentary canal; thus common continued fever, typhus fever, the yellow fever, the plague, and, in fact, all varieties of fever, with him, are caused by gastritis, or enteritis, gastro enteritis. He regards all these as disturbances immediately originating in inflammatory disorder in these parts. There can be no doubt that the alimentary canal is the original seat of the disturbance in a great many cases of fever; and, in fact, in cases that run through their progress and terminate fatally, diseased appearances, of a very marked kind, are commonly found in the alimentary canal. A considerable proportion of the whole of the patients who were examined after death exhibit appearances of this kind. During the past year, at the Fever Hospital, I find, by two or three notes with which my friend, Dr. Tweedie has favoured me, that of sixty fatal cases, twenty-four had disease of the mucous membrane of the intestines, and that fifteen of those showed ulceration of some part of the alimentary canal. These are two specimens (exhibiting the parts) of disease of the mucous membrane of the small intestines which Dr. Tweedie has sent me. In one of them you will see numerous ulcerations of the mucous coat, while, in the other, one ulcer has penetrated through the peritoneal coat. He observes, that in this case, adhesion to the neighbouring parts had prevented the

escape of the contents into the belly; but usually where an ulcer penetrates through the peritoneal coat, it is followed by death within four and twenty hours, for the contents of the alimentary canal escape through such openings into the abdomen. The general practice recommended, is powerful doses of calomel purgatives and blood-letting. Now Broussais holds quite a contrary opinion as to purgatives, from that which I have mentioned; he states that the administration of purgatives, in cases where any thing like what he considers a state of inflammation of the mucous membrane of the stomach and intestines exist, is the worst of all possible practices; in fact, he completely exhausts the vocabulary of abuse against all persons who purge their patients in such cases; he says it increases the irritation of the mucous membrane, and that it produces these ulcerations. There is a third form of sympathetic fever, in which the head is principally affected. That a considerable portion of cases of fever have their origin in the head, I think no one who has attended to the phenomena of these affections, can entertain any doubt. Dr. Clutterbuck has entertained the opinion, and defended it very ably, that the head is the seat of disorder in fevers generally. His work on fevers you will find very well worth your perusal. It contains very rational and very ingenious views, both of the nature and of the treatment of the affection, and well deserves to be read, although we may not agree with him in the rather exclusive view he takes of the subject, in referring fever entirely to affections of this part of the system. I cannot entertain a doubt, for my own part, that inflammation, or disorder originating in the stomach or alimentary canal, may excite smypathetically, febrile disturbance of the system, as well as inflammation or disorder originating in the head. However, we may really leave these two gentlemen, Dr. Clutterbuck and Dr. Broussais, to settle the matter between themselves: the one places the seat of all fevers in the head, the other in the alimentary canal. These extreme opinions are undoubtedly very useful in eliciting the truth; they lead to the minute investigation and comparison of facts. There is here a specimen of a brain taken from a person who died of fever, which will show you the kind of vascular congestion which may exist—the determination of blood which may take place to the brain in cases of fever. This is from a person that was admitted into the Fever Hospital in the fourth week of the disease, and who died within thirty-six hours after admission. You observe (showing the brain), that the whole external surface of the brain has become of

a bright crimson colour, from excessive injection of the vessels of the organ. Dr. Tweedie says, that of 600 cases treated last year in the Fever Hospital, 122 had well marked symptoms of affection of the brain, and 33 equally well marked symptoms of abdominal inflammation. I shall just make a slice into this, that you may have an opportunity of seeing the state of the internal vessels. This has been taken out a day or two, so that you do not see it under very advantageous circumstances, but still you may find numerous bloody points throughout, the clearest marks of strong vascular excitement."

I shall now quote a few observations from one of the greatest benefactors of the human race, Dr. Buchan. In his celebrated work, "The Domestic Medicine," we learn that the Doctor was a humoral pathologist, as the quotations will clearly shew; and his work stands higher in public estimation than any other ever published in this kingdom. In speaking of aliment, he says, "Unwholesome food, and irregularities of diet, occasion many diseases. There is no doubt but the whole constitution of body may be changed by diet alone; the fluids may be thereby attenuated or condensed, rendered mild or acrimonious, coagulated or diluted, to almost any degree. Nor are its effects upon the solids less considerable. They may be braced or relaxed, have their sensibility, motions, &c. greatly increased or diminished, by different kinds of aliment. A very small attention to these things will be sufficient to shew, how much the preservation of health depends upon a proper regimen of the diet.

"Nor is an attention to diet necessary for the preservation of health only; it is likewise of importance in the cure of diseases: every intention, in the cure of many diseases, may be answered by diet alone. Its effects, indeed, are not always so quick as those of medicine, but they are generally more lasting; besides, it is neither so disagreeable to the patient, nor so dangerous as medicine, and is always more easily obtained. Our intention here is not to inquire minutely into the nature and properties of the various kinds of aliment in use among mankind, nor to shew their effects upon different constitutions of the human body, but to mark some of the most pernicious errors which people are apt to fall into with respect both to the quantity and quality of their food, and to point out their influence upon health. It is not an easy matter to ascertain the exact quantity of food proper for every age, sex and constitution, but a scrupulous nicety here is by no means necessary. The best rule is to avoid all extremes. Mankind were never intended to weigh and measure their

food. Nature teaches every creature when it has enough; and the calls of thirst and hunger is sufficient to inform them when more is necessary. Though moderation is the chief rule with regard to the quantity, yet the quality of food merits a farther consideration. There are many ways by which provisions may be rendered unwholesome. Bad seasons may either prevent the ripening of the grain, or damage it afterwards. These, indeed, are acts of Providence, and we must submit to them; but surely no punishment can be too severe for those who suffer provisions to spoil by hoarding them, on purpose to raise the price, or who promote their own interest by adulterating the necessaries of life. Animal as well as vegetable food, may be rendered unwholesome by being kept too long. All animal substances have a constant tendency to putrefaction; and when that has proceeded too far, they not only become offensive to the senses, but hurtful to health. Diseased animals, and such as die of themselves, ought never to be eaten. It is a common practice, however, in some grazing counties for servants and poor people to eat such animals as die of any disease, or are killed by accident.

"The injunctions given to the Jews, not to eat any creature which died of itself, seemed to have a strict regard to health, and ought to be observed by Christians as well as Jews. Animals never die of themselves without some previous disease; but how a diseased animal should be wholesome food, is inconceivable; even those which die by accident must be hurtful, as their blood is mixed with their flesh, and soon turns putrid.

"Animals which feed grossly, as tame ducks, hogs, &c. are neither so easily digested, nor afford such wholesome nourishment as others. No animal can be wholesome which does not take sufficient exercise. Most of our stalled cattle are crammed with gross food, but not allowed exercise nor free air; by which means they indeed grow fat, but their juices not being properly prepared or assimilated, remain crude and occasion indigestion, gross humours, and oppression of the spirits, in those who feed upon them."

After having pointed out the injurious effects of bad water on the constitution, and the mistaken policy of our agriculturists, whereby the bodies of animals and men become so diseased; and having also made quotations from the Lectures of one of the most eminent professors in London, on the humoral pathology, inflammation, fever, scrofula, consumption, cancer, &c., I shall now endeavour to expose the irrationality

of their views and proceedings, and explain the CAUSES of DISEASE.

First:—Rain water is the purest of all; but when collected by dropping from houses, near or in large towns, it is contaminated by the smoky atmosphere through which it falls, and may contain calcarous matter, an which account it should be boiled and strained before drinking.

Spring water often contains some saline matter, and sometimes is what is called hard. This means that it contains certain salts, which unfit it for dissolving soap, and prevents it acting on vegetable matters. Weak stomachs feel this hard water to be oppressive; and some of the inferior animals, as horses, dislike it much, and have their bowels injured by it. Well water is nearly the same as hard spring water, and liable to the same objections.

When river water is so combined with animalcula and other noxious substances, it is of the greatest importance to have the water filtered. Soft water should be used when it is possible to obtain it clear. Water which will break soap without curdling and wash well, may easily be rendered pure by filtration: distillation will also greatly assist in preserving health and curing disease.

The second is diseased soil:—A large portion of the soil in the arable pastures of Britain, from long-continued cropping, have become so decomposed by the roots of the vegetables, that half the land in the kingdom requires trenching. The recent manure in wet weather is converted into a pulp, and taken up by the roots of vegetables, which makes both grass and grain unhealthy to man and animals, and a few fine days will breed millions of insects hurtful to the grain, and consequently to animals and man. Both leaves and storks of the vegetables are completely punctured by these insects: they suck the grasses, and deposit their eggs in innumerable quantities. The farmers are particularly careful to leave plenty of shelter in the hedges and ditches, for the protection of all manner of slugs and vermin.

Thirdly:—As to their effects on animals, the buttercup, and other noxious plants, produces a high degree of inflammation and ulceration in the stomach and intestines, as any person may observe, by examining the manure of the animals in the summer months, being mingled with blood and matter, and frequently the mucous coat of the stomach and bowels, which never happens to animals on wholesome pasture. The dairy cows in London feed on buttercups, and other poisonous plants, cut in the summer for food—there is not one out of twenty but that have diseased livers. When the cattle

is fed as above, the stomach, bowels, liver, and the whole viscera, becomes inflamed and ulcerated; the matter and bile mingles with the chyme and chyle, and passes into the circulation, and forms part of the body of the animal, rendering the flesh a corrupt mass of disease, and highly injurious to those who eat it. The milk, butter and cheese are still more pernicious. I will give the result of an experiment I made on the milk of a number of cows, fed on the best pasture in Hyde Park, where a poisonous weed is not to be seen; and the milk of a number of cows fed on the above poisonous weeds, cut and carted to them in their green state.

The two sorts of milk were mixed in separate dishes with a proper quantity of rice in each, and put into the oven to bake without any other ingredients. The first milk, the whole of its properties combined with the rice and made an excellent pudding, even the oil was scarcely observable on the top; and when taken out of the oven, it had an agreeable smell. The poisonous milk, the properties of which separated in the baking; the oil in a large portion floated on the top, and it had a loathsome disagreeable smell; the albumen appeared in acrid indigestible curds, and the whey tasted like mustard whey, and was strongly impregnated with bile.

When we consider that such milk forms the principal food of children, as well as the corrupt milk of their mothers, composed of the assimilated juices of bad food; the use of such milk and animal food, given in their infancy, I pronounce to be one of the most fruitful sources of disease that can be imagined, and one of the best answers to the contempt thrown out by Mr. Lawrence against the doctrine of humoral pathology—the only medical doctrine capable of a rational demonstration, notwithstanding the rejection of it by Cullen and his followers. Does not common sense teach us that when such food is taken into the stomachs of children, it becomes assimilated, and forms a part of their constitutions, producing inflammation, fevers, with all the diseases incident to children: they still go on feeding them with noxious stuff until their stomachs become deranged to that degree, that every thing they eat passes immediately into the acetous and acrimonious fermentation. The milk immediately forms into an indigestible curd in the stomach, the acrid oil producing the most active inflammation. A dose of calomel is then given for the pretended purpose of relieving the poor sufferer from the acrid state of the stomach; this is at once converted into a

corrosive poison; and from its excessive stimulating properties, causes inflammations and tumours in the whole glandular system, diseasing the bones, and producing scrofula in its worst form. If it falls on the lymphatic glands, and the patient keeps using the poisonous food, it will keep up a constant purulent discharge for many years.

The increase of scrofula in this country is eating like a gangrene into the vitals of the public; which, if not prevented, will do more to overthrow the state, than all our enemies put together. Indigestion is another evil which follows in its train, with a frightful catalogue of disorders; if indigestion and scrofula spare their victims in youth, it is sure to carry them off at a more advanced period of life. Such female patients as are affected with scrofula, are generally subject to leucorrhæ, and of a costive habit, with nervous, hysterical, and spasmodic disorders. Their bodies are a perfect compound of poisons; their nerves being embedded in acrid oil, makes them highly susceptible of catching cold, (which is a bad term, they ought to call it catching heat), for as soon as they come in contact with oxydized air, it sets the combustible substances, of which their bodies are composed, into the highest state of febrile excitement, and they waste away like the oil in a lamp, or run off in purulent matter, until their bodies are completely consumed. This is what they call consumption. A clear proof of the truth of the doctrine of the humoral pathology, and the causes and effects of inflammation.

Mr. Lawrence observes: "Inflammation stimulates, excites, irritates, inflames: all injuries, and all external irritants, produce inflammation. How could any reasonable being think otherwise, when they are inflicted on such subjects as I have described. I thank God he ordered my lot in a part of the world where a better and more rational policy was pursued than is now done in England; it was enjoined on our parents to bring us up in the nurture and admonition of the Lord, and using the maxims of Solomon, "he that spareth the rod hateth the child," our parents and schoolmasters most strictly obeyed when at school. Take us as a body we could stand as much beating without causing inflammation or injury, as would destroy half the children in London; for bruises, blows, and external injury, short of breaking our bones, had no effect upon us but keeping us in order for a few hours, which might point out to Mr. Lawrence, and the medical men in general, that our present agricultural and medical policy are very rotten ones, as the unfortunate bodies of the people abundantly prove.

Mr. Lawrence, in speaking of idiopathic and sympathetic fevers, as he calls them, points out the extensive inflammation and ulceration of the stomachs and intestines of the individuals who have died at the fever hospitals. It is really not to be wondered at, when they are using such food as I have described; for surely eating and drinking disease, will certainly produce disease. Broussais maintains that all fevers arise from the stomach; and, contrary to the opinion of Mr. Lawrence and a great portion of the practitioners of the day, who recommend bleeding and purging, he denounces as a most murderous practice. Dr. Clutterbuck will have it that all fevers originate in the brain, and the learned professors endeavour, by every argument they can bring forward, to prove their respective positions, without giving the true reason. The Broussais fever, is really the buttercup fever, aggravated with the other poisonous plants which I have already mentioned, inflaming and ulcerating the stomach and intestines by their specific action on those organs. The Clutterbuck fever is nothing more than the potato fever of Ireland. Had the learned professor studied the poisonous effects of the solanums, he might have observed that their specific action was chiefly exerted on the brain, producing the phenomena that he so ably describes. He might have observed, persons who lived chiefly on potatoes, how irritable they became, more particularly when they use ardent spirits, as it stimulates their brain to madness, especially if the potatoes that are made use of were raised on wet or clay soil. I will next notice in page 339 of the *Lancet*, Stricture 2, by John Alexander, M.D. On puerperal fever, the indefinite and discrepant opinions on a subject of such vital importance is truly humiliating to the medical profession, when we consider that such maladies may be so easily avoided. I have no doubt but that the puerperal fever is caused by the unwholesome food I have already mentioned, together with acrid and unripe fruit, so incautiously used by women in a state of pregnancy. But what can we expect when the laws of life and health are not taught in our schools.

The next fatal disorder now prevailing to an alarming extent is Bronchittis, or disease of the epiglotis and wind-pipe, which, if not prevented, ultimately affects the lungs, and destroys life The late Dr. James Hamilton, President of the Hunterian Society, observed, that he had never seen a case cured after the cartilage of the wind-pipe was affected, until he saw it cured by my bath and medicines; so well was he convinced of the superiority of my system of

treatment, that he recommended to me all the patients he could, who were affected with the above disorders, for two years previous to his death. The success I have had in curing that complaint has never been equalled—I have at this time a number of cases given over by the faculty who are in a convalescent state, and a considerable number completely cured.

The next fatal disorder is cancer:—Mr. Lawrence says, "If the most respectable part of the medical profession were asked their candid opinion, if they thought cancer could be cured, they would, without hesitation, say it could not, in any stage of the disorder." I can, however, assert and prove, that it can generally be cured in its first or incipient stage; but when the secondary symptoms are fully established, a cure can never be effected; that is to say, when the liver, and other organs of the body, become affected. I have, in the secondary stages, succeeded in curing a number of internal cancers, where the air can be excluded. As to the chief cause, I boldly assert it to be the buttercup, and pledge myself to prove it, and will challenge the faculty to produce a case of cancer where the buttercup does not grow. I could immediately excite inflammation and cancer, in cases that are now cured, as readily as the application of a blister would act on the body, by giving them buttercup-butter and butcher-meat to eat. The horrible smell the patients are affected with, is caused by that detastable creature called the fluke, a species of leach that breeds in sheep's livers; the hepatic duct, one of the principal ducts in the liver, is completely choked up with them. They suck up the blood in its passage through the liver; and a large portion of the blood that passes into the circulation to furnish the body of the sheep, is the excrement of the fluke; which has the power of decomposing the albumen and alkaline properties of the blood, and passing through it the buttercup oil, which loads the sheep with acrid fat, and no lean: this is the reason that such meat has a loathsome smell when roasting. It becomes part of the bodies of the people of a peculiar temperament, and produces cancer; and if the use of such food is continued, a cure can never be performed.

FRUIT.

Fruit forms a part of our diet, and is eagerly sought after by children; and when of a good quality and full ripe, is congenial to health. But when the trees become diseased from improper and diseased soil, bad cultivation, attacks

from insects, and parasitical plants growing on their stems, the fruit will be unwholesome, and powerfully assist in producing many diseases, particularly scrofula. To endeavour to check the growing evil, it will be proper to point out the cause :—first, many fruit trees are planted on soil which is not suited to their nature, consequently they do not thrive nor produce good fruit; and when planted on proper soil, and left to grow for a great length of time, they exhaust the soil of its substances which is necessary for their support; they should then be destroyed, and fresh orchards planted on virgin earth, or the exhausted soil ought to be removed from the roots of the trees, and fresh soil, suited to their nourishment, substituted. This should be attended to once in seven years, when good fruit would be produced if properly cultivated. The natural decay of the trees would point out the necessity of planting a young orchard on fresh soil, instead of which, they are raised in nursery grounds for many years, and unnaturally forced by manure, which breeds on them miriads of insects and parasitical plants. The improper juices extracted from the exhausted earth, forced by the manure, and the insects and parasitical plants drawing their nourishment from the tree makes the fruit ill-flavoured and unwholesome. It is painful to observe the bark of the trees covered with excrescences, produced from the sap of the trees and bushes, which the attacks of insects cause to flow out, and from whence they derive their nourishment, and deposit their eggs. It also furnishes a nucleus for the seeds of masses of fungusses and other parasitical plants, where they grow, and strike their roots into the bark, and draw their nourishment; the trees appear to be covered with leprosy or carbuncles. Can any reasonable person expect that the fruit from such trees will not disease those who eat it, and produce in them insects of various sorts, and cause their food to pass into the acitus fermentation; and when used unripe, in pies and puddings, mingled with sugar, the evil is greatly increased, as all unripe fruit possesses a great degree of acrimony combined with their natural acidity, it make children and adults liable to attacks of indigestion and inflammation, with many diseases that follow in their train, particularly diarrhœa, cholera, mortification, glandular and cutaneous diseases. I have no doubt but that cholera morbus in India, Persia, and at the present time ravaging Russia and Poland, is permitted to exist through the shear ignorance of the laws of nature, among those who are the guardians of the public health. The agriculturists and horticulturists are highly culpable in

permitting such evils to exist, when they have it in their power to prevent them. If they consider themselves as accountable beings to the Supreme Giver of all good, an awful responsibility awaits them for their wilful ignorance and contempt of His laws. I shall here insert, for the information of the reader, an account of the destruction of human life, which took place at New York, Vermont, and part of Pensylvania, occasioned by the ergot, or spurred rye.

RYE.

Rye is liable to be diseased by an insect depositing its animalcula in the grain, which causes it to sprout and produce an excrescence like a cock's spur, of a hard texture. When ground down with the flour, or used in distillation, it proves a mortal poison; and at times has proved a pestilential scourge of Europe: it has been equally fatal in America, and is supposed to have been the chief cause of the plague in London. In 1811 and 1812, a great number of lives were lost from the spurred rye being used as food, and the liquor distilled from the rye. The great mortality was chiefly confined to New York and Vermont. Upwards of twenty thousand victims fell a sacrifice to the ravages produced by that dreadful poison. Meeting after meeting of the faculty took place, to endeavour to discover the cause; and after the most mature deliberation, it was discovered by Dr. Hosack and his party, that it was a poisonous miasma floating in the air, confined to certain prescribed limits, and affecting certain persons, more particularly those that were in the habit of drinking gin:—the best apology for their ignorance of the true cause—the ergot or spurred rye. What made their report the more ridiculous was, that there was at the time a fine, clear, black, hard frost, and the healthiest weather that could be imagined. Many of the members were sceptical, and could not believe the report: they thought, that owing to the fine weather, it was impossible for contagion to exist in the air: others were of the same opinion with the doctors. One of the non-contagionists wrote and requested me to go to Albany, where the disorder was raging, and wished me to endeavour to discover the cause of the afflicting calamity.

On my journey from New York to Albany, where the legislature of the state was sitting, I stopt at a place called Kinderhook, and being cold, contrary to my usual practice, I drank a glass of gin. I had not drank it many minutes before it affected me as if I had taken something boiling hot into my stomach. Although I immediately took an

emetic, which produced the most active effects, the poison had taken so firm a hold of my constitution, that my throat and rectum were extremely painful. I had a cold perspiration towards the morning, with a pain in my bones and head, whereas I was in perfect health before I drank the gin. I accused the tavern-keeper of putting poison in the gin: a gentleman of the town who heard me, and had observed that the habitual gin drinkers in the place had died, seconded me in my charge. The landlord declared he was innocent, and referred us to the distillery. Upon our applying, the distiller was much alarmed at our charge of his putting poison in the gin; and added, it would be his ruin if the report got abroad, in consequence of the great mortality. He took a voluntary oath, and assured us that he put nothing but the pure grain in his gin, and invited us to see the grain in the still-house loft. We found it, on inspection, badly cleaned, and probably one-tenth of it spurred rye, or rye vitiated by being infested with the clavus or ergot. I was quite astonished when I saw it, particularly as it was so well described by Dr. Darwin, as being a pestilential scourge in various parts of Europe, producing what is called by Dr. Mason Good, in his history of medicine, mildew mortification: in America it was vulgarly called the dry rot. On dissection I have observed that the wind-pipe and rectum were so completely parched by the action of the air stimulating or attracting the effects of the poison to the parts, that when pressed they would give way and appear like black snuff.

I lost no time in repairing to Albany. On my arrival, the inhabitants were in mourning, on account of the loss of their relatives and friends, some of whom had risen in health in the morning, had eaten a hearty breakfast, and at noon were in eternity! Such were the rapid effects of that inflammation, which was ascribed by the Doctors of New York, to the air of Albany being charged with the damps of death. The Members of the Assembly of the State had at the time under their consideration, a resolution to enable them to remove the State Legislature from Albany: it was expected that the resolution would be carried the same night, to the great and irreparable injury of the inhabitants. To the friend who was waiting for me at the hotel, I communicated the glad tidings of having discovered the cause of the disorder. He immediately ran to the assembly room, and obtained the members' consent to adjourn the question until the following morning. The tavern where I was was soon crowded by the members and citizens, all anxious to

know the cause. It was no sooner communicated, with a detail of my own sufferings, than the members searched the book-shops and libraries, and found to their great satisfaction, that the ergot was capable of committing the ravages upon mankind that I had represented to them. One of the sceptical of the faculty, on being requested to analyze the article, and report on the subject, took a few of his acquaintances some distance into the country to dine at his father's farm, where an opportunity offered to prove whether the ergot was injurious or not, for a large quantity of it that had been separated from the rye was given to the pigs: and from its fatal effects (as it caused their death the next day) the father became a convert to the opinion. A number of rats, cats and dogs also fell sacrifices to its effects before the sceptical were convinced. Its poisonous powers operate so powerfully, that a few grains of it will cause abortion; and it is now no uncommon thing to administer it to facilitate child-birth: this it will do in an hour after it is taken—sometimes to the serious injury of the child, but always contributing to the ease of a lazy and money-making accoucheur. I have often been called to witness the severe sufferings of children after their birth, occasioned by the effects of the poison that is imbibed by them through the umbilical cord. There can be no doubt as to the ergot affecting children under such circumstances; even if it did not, the unnatural efforts of the mother are sufficient to produce the bleeding at the mouth, nose and ears, and convulsions, and even death, from the milk taken at the breast. Provided the children survive, the effect of the poison is seen in their eyes. From the best information I could collect from medical men, it was thought a dangerous remedy, even if given in small quantities: an ounce of it may be administered, in its violet-coloured state, without apparent injury. It is true, that the animalcula do not always come to perfection: when they do, the colour is black; and in this state a few grains would destroy life. The insect resembles that found on the potato, with shining black crustatious wings, a greenish-yellow belly, and fiery-looking legs; and contrary to the nature of all other insects, it is the most active in frosty weather. The *lolium temulentum*, a species of rye-grass, is very subject to be affected with the ergot: and when eaten by horses, it is sure to kill them.

It was the opinion of Linnæus that all contagious and infectious disorders were produced from animalcula. From the numerous experiments and observatious which I have made

on that subject, both as to their pernicious effects when engenerated in the system, and also the fatal effects upon men and animals when they deposit their eggs in the grain and other food, I am fully confirmed in the correct view which Linnæus took of the subject: the very idea of the existence of contagion independent of animalcula is a reflection on the goodness of Deity, and inconsistent with the laws of nature. The number of insects that are destructive to life are highly worthy of the attention of the entymologist, whose researches ought to be particularly directed to those that are destructive to the livers of animals and men; the high degree of inflammation, and rapid mortification produced by the ergot or spurred rye, readily point out the necessity and importance of that study.

In answer to Mr. Lawrence's observations on inflammation, I have to observe that a great number of insects, when applied to a healthy body, will produce inflammation, but heat and cold, unless applied in excess, will not affect a healthy body: they are relative terms, and, by themselves considered, are neither strengthening nor debilitating, but are only mainly as a consequence of certain states of the body at the time of their application. To illustrate the doctrine, Mr. Lawrence may take a plant of the buttercup, and beat it up with some of the darkest yellow butter, lay it on his arm as a plaster, or on any part of the body, keep it on a sufficient time only to act as a rubifacient, take it off, and let the cold air act on it, it will at once inflame and raise a blister; the cold is only an effect of a predisposing cause, for if the butter-cup is not employed, the cold air at the freezing point would not have drawn a blister on a healthy body. A variety of plants will produce a high degree of inflammation, and when taken into the stomach produce a malignant gas, that exhausts the vital and animal spirits by their extreme degree of heat, such as the bears-foot, hellebore, leopards-bane, monks-hood, wolfs-bane, buttercup, and many others equally fatal of the hot kind, which will excite inflammation and fever. The extraordinary prevalence of the buttercup produces more misery to the inhabitants of Britain than all the other plants put together, as it keeps up a constant visceral inflammation on all delicate constitutions, from the use of butcher's meat, milk, and butter; the very perspiration coming in contact with the air burns and excoriates their skin, especially the face, it is often covered over with pimples and tumours, like barnacles on a foul-bottomed ship, and on going to bed their skin feels to be on fire, their nerves stimulated almost to madness by

being imbedded in the acrid oil. A large number of the inhabitants of England are in perpetual torment, unpitied by those who have strong nerves. It may be said that this is an unsuitable remark: but I think not, for pity should lead them to do all in their power to relieve the sufferings of the afflicted, which might be easily accomplished by destroying the causes.

The next class of poisonous plants are of the cold kind, such as hemlock, henbane, night-shade, &c. Other poisons act by a narcotic property, and particularly affect the brain, as poppies, solanums, colchycum, pæonia, laurel, and datura. Many others will produce fever and inflammation, and what is yet worse, they stimulate the passions of youth, and hurry them on to the gratification of desires, which debilitates and depraves the body, rendering it liable to a host of diseases; and what is still more awful, destroys the faculties of the soul, too frequently goading them on to insanity. I stand on firm ground, having the testimony of many of the most eminent physicians who ever lived, who have declared that the buttercup hurts the senses and understanding, unfitting them for those important duties for which Deity intended them. I hope the reformed parliament will exert its influence to ameliorate the sufferings of a large number of the inhabitants for the three kingdoms. Having pointed out sufficient causes for the production of much misery to the community at large, I now proceed to shew the effects,—which is to me a most painful, although a necessary task.

CHAPTER IX.

Linnæan Classification of Diseases.

In describing the diseases and their effects, and having examined the various classifications of disease by most authors, I find the Linnæan classification the most agreeable to the natural causes and effects, and will therefore for the present strictly adhere to the Linnæan system, and will give my own ideas on that subject at the end of his.

The Classes are eleven in number :—

1. Exanthematici
2. Critici
3. Phlogistici
4. Dolores
5. Mentales
6. Quietales
7. Motorii
8. Suppressorii
9. Evacuatorii
10. Deformes
11. Vitia.

Of Fevers in General.

The great bulk of mankind are said to perish by fever : the most general *causes* of fever are infection from animalcula, errors in diet, unwholesome air, violent emotions of the mind, excess or suppression of usual evacuations, external or internal injuries, and extreme degrees of heat and cold. All mankind are liable to fever from attacks of animalcula ; but persons who live agreeably to the laws of nature, will hardly have a fever from any other cause.

After I began to study the laws of life and health, although I had only the remains of a shattered constitution from the excessive ravages of disease, I was for ten years, during the summer-heat at the highest temperature, and frequently travelling in pestilential marshes from 1804 to 1814, yet I never took the fever, although I have been exposed to the sun when the thermometer stood at 99° in the shade—one of the greatest proofs that can be advanced.

The Jews were not liable to fever, although they lived in a very hot country, so long as they obeyed the Mosaic law. In one of the Quaker co-operative societies in the State of New York, they used to lose from forty to one hundred and twenty yearly, for ten preceding years, with

fevers of various sorts: since they began to adopt my bath and practice, the proper cultivation of the soil, with my rules of diet, they have not lost one by fever of any description, as their medical men inform me. It is true, they have brought their soil to a higher degree of cultivation than is to be found in any other country: the food is all preserved and cooked on the most scientific principles.

Captain Bushnell studied my practice and bath, and took a bath with him on the Northern Expedition under Captain Parry: they observed that the men, before going on deck, used to take the bath at a very high temperature, and afterwards went on deck and stood the cold twice as long as those who had not taken the baths, nor were they so liable to be frost bitten.

As fever is only an effort of nature to free the body from the offending cause, it is the business of those who have the cure of the sick, to observe which way nature points, and to use every means to assist her operations. Our bodies are so formed, and the powers of the vital principle so strongly opposed to whatever is injurious to health, that there is a tendency to expel fever, which is done by stool, urine, vomit, and, above all, by perspiration, which is most effectually obtained by means of the vapour-bath, as it brings the disorder to a crisis at once.

At the commencement of fever, the patient complains of great thirst: this at once points out the use of water and other cooling liquors, which attenuates the humours, promotes perspiration, and removes spasm and obstructions. The patient ought to drink freely of barley-water, thin gruel, apple-tea, linseed-tea, orange-whey, marsh-mallows, lime-tree buds, acidulated with tamarinds, lemon, or citron lime juice. An infusion of the pinus canadensis, or hemlock spruce, acidulated with cream of tartar, is one of the best drinks in fever hitherto known, as it powerfully promotes urine and perspiration, and is an anti-putrescent.

Above all, abstain from blood-letting, as in many instances it weakens the powers of nature, and renders it incapable of combating the disease: it is not necessary in any case if the bath can be obtained. Blood-letting draws off the good blood as well as the bad; whereas the vapour-bath, properly medicated, draws off the acrid or putrid serum, to any extent, leaving the crassmentum. Should there be any noxious properties or gas still existing in the blood, the medication will neutralize it, and pass it off by the pores of the skin.

The duration of fever will depend on the constitutional

diathesis. A person whose constitution is a perfect compound of disease, and unwholesome provisions—when they are afflicted with typhus, intermitting, remitting, nervous, yellow or putrid fever, the fever will sometimes burn until all the noxious substances are absorbed, and passed off by the evacuations of the body. It it truly astonishing, in such cases, how the vapour-bath will throw off the natural tendency of the fluids and solids to run into the putrid state, when the patient is weakened as not to be able to take exercise of any sort, when the system is so chilled by the fever, the bath, medicated by nervine and stengthening medicaments, will invigorate them beyond any thing hitherto known, and prevent a relapse, which frequently takes place in depraved constitutions.

I cannot help adverting to Cullen and his followers, with their atony and spasm, and many other equally absurd notions. In most cases of non-contagious fever, it begins with cold and shivering: in such cases matter is formed in some of the digestive organs, and taken into the circulation: it then causes a violent commotion, followed by spasm, delirium, and the other symptoms attending these particular fevers. All the energies of nature are called into action to expel this matter or other poisonous substances: a violent contraction of the various organs of the body takes place, until the noxious matter is expelled by perspiration, when the patient becomes exhausted: this is what Cullen calls spasm and debility. If the body be tolerably healthy, the war will soon be over; but if the body is a compound of rotten mutton and buttercup butter, and other poisons, the ulcers go on to secrete the noxious substances of which the body is composed; it is again taken into the circulation, a fresh battle commences, the enemy is once more subdued by the spasm: as the washer-woman wrings the water from the wet clothes, the alternate battle and secretion goes on until the whole of the noxious substances are expelled from the body, or the whole body will run off in fusion, like the oil in a lamp: the nerves and muscles will be completely exhausted; and, alas! the taper will go out. Had the vapour-bath, with suitable medication, been employed to neutralize and carry off the noxious substances, what battles it would have prevented; and, like a faithful ally, it would stand by the vital powers until the enemy had been overthrown.

The bath would carry into the circulation, through the medium of the lungs in the act of inspiration, the powers of plants, which are held in suspension by the dry

or humid steam, which reanimates the whole frame. The bland oils relieve and lubricate the vital organs, so parched by the fever—takes off the spasmodic action, softens the whole vital functions, rendering them fit to perform the office of digestion, so necessary to preserve the body in health. The aromatic properties of the plants warms, comforts, and invigorates the nerves: the glutinous qualities lubricates the mucous membrane of the lungs, defends them from the too powerful action of the air on the inflamed surface: the volatile and resinous properties, acting on the urinary organs, carry off the noxious properties from the system: the alkaline qualities neutralize the putrid, acrid and acid matter and gases, which was the principal exciting cause of the disorder: the bland gums, starch and other properties of the plants, combining with the watery particles of the steam, force their way through the circulating vessels, and carry a portion of the noxious matter and gases off through the pores of the skin, when a sufficient quantity of the above-mentioned drinks are taken into the stomach, the bath excites the exhausted absorbents to a natural action, carrying a sufficient quantity into the system, when the patient will have an inclination to sleep.

It is surprising to see the sudden change that will be effected in so short a time, unless the constitution is much depraved, the fever will be at an end; or should another attack commence, it will be very slight, compared to what it would have been in the ordinary course of treatment.

Out of all the cases of fevers of every description which I have had to treat within the last four years, I have not lost one; which is really astonishing, as many of the children had not perfectly recovered from the croop, hooping-cough, and measles; and a great number were under treatment for scrofula; and not a few had gastric fever. Such cases have, to a great extent, proved fatal under the regular medical practice.

To illustrate the effects of my bath on one of the most powerful cases of "spasm and debility," as Cullen would say, I subjoin the following:—

A gentleman came to me from the country, he had a tumour on the chest of considerable magnitude, a little above the left breast: his constitution was much depraved,—he took the baths, and such medicines as I thought proper to give him. I knew there was no time to be lost; the cold and hot fits came on by turns. The tumour burst on the inside. His wife came up to London, and would not allow him to take any more baths, her medical man having told

her that nothing could save him, and she would not pay for that which her medical man had said would be of no use. The absorption of the matter brought on the most violent cold and hot fits I had ever witnessed; and for a whole week his wife would not consent to pay for medical advice. From the great mass of matter in the cavity of the chest the fever began to assume a putrid tendency, and delirium came on. The penurious heart of his wife would not pay for a nurse, but partly attended to him herself; she took the fever, and then called in Dr. Hamilton; he thought the gentleman must die, and wished me to give him the bath to alleviate his sufferings. I was assisting to lift him from the bed to the bath, when the spasms came on; he clenched me so hard it was with difficulty that I could disengage his fingers; the perspiration began to pour profusely, it was so offensive that we could hardly bear the smell; he had not been in the bath fifteen minutes when his fit of delirium went off, and he called out the bath would cure him. When the spasm came on again I had him immediately put into the bath, and did so for three successive attacks, when he began to recover.

This is the effect, instead, as Dr. Cullen says, the "cause of fever." Had he told the inhabitants of this country to eradicate the poisonous plants from our fields, thereby rendering the pasture and the cattle fit for food,—had he recommended pure water and wholesome drinks, as well as wholesome food of every sort, and abandoned the use of all poisonous drugs, we should not be so troubled with fevers, but, on the contrary, he told the students what was not true,—that they might eat and drink just what they pleased, vitality and assimilation would convert it into good chyme and chyle. The falsehood was so elegantly glossed over, and particularly as it produced a golden harvest, it was not likely the doctrine would be soon abandoned: his book has been for many years the text book of our schools; the pestiferous doctrine has been generally taught to our classical men, of all ranks; and before its fallacy is discovered, the British nation will stagger under the dreadful weight of the delusion.

It is truly astonishing, that so large a portion of the nobility and gentry should be so afflicted with chronic complaints, caused by the various fevers, embittering the close of their lives, and yet that no exertion should be made to discover the cause of their maladies, which are so humiliating to themselves and their families, and degrading to the nation: from the king on the throne, to the meanest of his

subjects, all are liable to be involved in the same physical calamity.

I paid particular attention to the reports of the disorder of our lamented Sovereign, George the Third, and I feel confident his complaints were brought on from the use of fat mutton, of which he was so fond; the severe affection of his eyes and brain clearly point out the effect of the butter, cream, and fat of meat; for such an affliction could not have happened, had he lived on wholesome aliment. I have had a number of patients affected in the same way, from inflammation; some wholly blind, with the severe affection of the brain—their sight was restored, and they are in perfect health.

The post mortem examination of his late Majesty, George the Fourth, was also deeply interesting, as it shows that diseases of the vital organs are making fearful ravages; I am convinced that such organic changes could not have taken place had he lived on wholesome provisions. I have never met with a case of ossification of the aorta, or urinary calculi, where the water was pure and contained no lime or magnesia. The late Duke of York suffered from membranous inflammation of the whole body, brought on by the use of acrid food, which terminated in dropsy of the integuments; and a great number of the inhabitants of this country are rapidly approaching to the same premature end.

Class 1st, *Exanthematici*—Fevers attended with eruptions on the skin.

Order 1st, *Contagiosa*—Of a Contagious Nature.

Genus 1st, *Morta*—Vesiculary Fever.
——— 2nd, *Pestis*—Plague.
——— 3rd, *Variola*—Small-pox.
——— 4th, *Rubeola*—Measles.
——— 5th, *Petechia*—Spotted Fever.
——— 6th, *Siphylis*—Venereal Disease.

Genus 1st, *Morta*—Vesiculary Fever.

The vesiculary fever is no doubt produced from insects, most probably from the milk of cows, as we find innumerable insects in cheese; I throw out this hint that the cause of that contagious disorder may be discovered. I believe that we have both the power and the means sufficient to destroy every insect which is destructive to health and life. The insects

puncture the leaves and stalks of grass, and deposit their eggs, which are eaten by the cows, pass into the circulation, and are taken into the lacteals, and given out with the milk, which is not sufficiently heated to destroy them: they afterwards multiply in the cheese. The seeds of fungouses and other poisonous plants, particularly in swampy countries, are swallowed by the cows, both in their food and water, and which I have frequently taken from the cheese, placed on rotton wood, and have had a fine crop of mosses, fungouses, and sichens, the most of which will prove injurious, and ought to be destroyed; diluted acids will facilitate their growth, whereas salt and alkalies will destroy them.

Eruptive fevers are more common and fatal in swampy countries: I have observed the various fevers, so common in such situations, to disappear when lime was employed as a manure; it not only destroys the insects, but fungouses and other poisonous plants; it likewise neutralizes and destroys the noxious qualities of the putrid vegetable and animal substances held in suspension by the water.

Medical Treatment.

When the eruptive fever begins it will be proper to keep the bowels in a cool tranquil state, to give the alteratives, or alterative and purgative night and morning, or four times a day, if the patient will bear it; medicate the bath with the scordium, as recommended in my large work, vol. 2nd, 248, on pestis, and page 242, on exanthematici, where the most proper treatment is recommended. The bath taken every day, medicated alternatively with scordium and the general medication, will generally effect a cure in four days, sometimes in one.

I have had every variety of this disease, from a rash to a carbuncle eruption, and have found cabbage leaves applied to the skin give greater relief than any other remedy: they should be cut smooth, and a rolling pin run hard over the stalks, at the back of the leaf, to soften them, then held close to the fire till they begin to wilt a little: have two soup plates made hot in boiling water, put the leaves in one as they are done, and cover over with the other, apply them to the skin two or three times a day, particularly over the throat and chest. When the disorder begins to subside the alexipharmic, tonic, and corroborant medicines may be given alternately, for a few days, and the patient will be restored to health.

GENUS 2nd, *Pestis*—Plague.

In perusing the various authors on plague I can readily perceive that the plague may be produced from a variety of insects, and none more deadly in its effects than the ergot, or spurred rye, which the French demonstrate "*mal des ardens*," and by Good, "pestis erythematica." When taken in such a quantity as to be poisonous, it first excites a sense of tingling or fornication, and fiery heat in the extremities, where the action of the system is weakest; to this succeed cardialgia, and griping pains in the bowels, and then vertigo, an alteration of clonic and entonic spasms in different parts of the body, and mania, and loss of intellect; while in a quantity still smaller, it seems to spend itself almost entirely on the extremities, as being the weakest part of the body, and to produce that species of gangræne, which is here denominated ustilaginea, or mildew mortification. It is hence a very acrid irritant, and from its peculiar tendency to stimulate the hypogastric viscera, seems often, in small quantities, to prove a powerful emmenagogue; for this purpose, an ounce of spurred rye is boiled down in a quart of water, to a pint, half of which is usually taken in a day, both in obstructed and difficult menstruation, and continued for three or four days. "The symptoms said to be produced are headache, increased heat, and occasional pain in the hypogastrium, succeeded by a free and easy flow of the menstrual fluid. Advantage has been taken of this effect on another occasion,—for the same medicine has been prescribed in lingering labour, and we are told by Dr. Bigelow, with the best success, that good forcing pains are thereby very generally produced speedily. In this case instead of a decoction of spurred rye, he prefers giving the crude powder to the amount of ten grains to a dose."

It was the opinion of some of the physicians that the plague in London was occasioned by the ergot, which I think highly probable, as those who lived on oatmeal were not subject to the infection. Dr. Russell, in his elaborate treatise on the plague, makes mention of many varieties: he, and most other persons who have written on the subject, have laid it on the Almighty having poisoned the air, the best excuse for their ignorance of the laws of nature,—every species and variety of plague is caused by different insects, and not as they suppose from the air: there is no contagious disorders but what is produced from animalcula, which is in the power of man to destroy.

Medical Treatment.

I have not seen that variety of plague, so frequent in Turkey, but have no doubt, from what I know of it, that the teucrium scordium, or sage-leaved germander, and the plagium or penny-royal, from their decisive effects as a medication for the bath, would do much to destroy the insects generally; and also if taken as a tincture, decoction, or infusion, or freely given alternately with the alterative and purgative medicines, would be more likely to cure the plague than any other treatment I know of: the cooling dietetic plan to be followed as in the other disorders of the class exanthematici. The scutilaria, lateriflara, that has been found so useful in the cure of hydrophobia, in the United States, deserves a trial in the cure of the plague.

GENUS 3rd, *Variola* – Small-pox.

This loathsome disorder was not known to the Greeks and Romans, nor in the Western World, until it was introduced by the English cows, and emigrants. In conversing with one of the American Indian doctors, I was informed, their opinion at that time was, that the disorder was taken through using the milk of the cows; and which I think probable, as I believe all the contagious diseases of children are caught through the medium of the milk of their mothers, as well as of the cows. The milk at this time is producing the most terrible effects on children, through their mothers using diseased food: their stomachs are kept in a constant state of irritation and inflammation, producing glandular diseases and ulcerations to a most fearful extent. There are children at the breast, whose heads are covered with one complete mass of matter; it will take the mother at least half an hour every morning to wash the head and take off the cap, it is so matted with matter, after they are weaned and doomed to use the milk of the cow, produced from the acrid juice of the buttercup, and excrements of the fluke; and it is at this time running the children's bodies off in fusion. Such, Englishmen, is the doom of your unfortunate children, who are born of delicate parents, and of those who are born with more robust constitutions; millions of them are a prey to all manner of inflammatory and glandular diseases. Englishmen shudder with horror at the Pagans offering their children to Moloch, and the Hindoos burning their widows on the funeral pile; but what would these pagans say to the Christians, who are feeding their wives and children on such hellish stuff, and

killing them by inches. I have this day had a number afflicted as I have described: five with cancer, many with diseased stomachs, and others almost mad with nervous complaints and tic douloureux.

GENUS 4th, *Rubeola*—Measles.

The measles appeared in Europe about the same time with the small-pox, and like the whole exanthematic class of diseases, I have no doubt of its being produced from insects which feed on acrid plants; and that the virulence of the disorder is increased by the cattle eating such plants. Milk, butter, and the fat of animals feeding on the buttercup, and other acrid vegetables, have long been known to have the most destructive effects on all who have used them, when afflicted with measles. That part of Scotland where I had the good fortune to be born was in the mountainous district of the country of East Lothian, where little of the pasture land being cultivated, we had the finest milk and butter that could be found. The children in that part of the country had not those disorders which are common to children in general, but were inoculated for the small-pox. I took the measles at New York, shortly after my arrival; the spotted fever in 1803, at Charleston; and the hooping-cough in 1811. I think we may justly infer that it is in our power to do away with contagious disorders altogether. As the measles is a common disease, well known to the medical gentlemen who attend the baths, I shall say nothing of its symptoms; our principal business is to assist nature in throwing out the eruption: should her efforts be too languid, the bowels must be well evacuated with the alterative and purgative medicines, and the patient placed in the bath, in order to draw out the eruption,—which, when out, every thing must be done to keep so, by applying cabbage leaves to the throat, chest, and lungs, keeping them on morning, noon, and night, which will effectually prevent it being retropulsed, and affecting the lungs. The tickling cough, which is sometimes so troublesome, will also be relieved by the application of cabbage leaves. When there is difficulty in breathing, the fumes of hot sage tea should be inhaled from a pitcher. Should the eruption disappear, give the alterative, or alterative and purgative medicines warm, and then the bath, which will preclude the necessity of bleeding: the portable bath ought to be sent to the bedroom, or the patient wrapped up, and taken to it in a close carriage. A number of scrofulous patients who had been under my treatment took the measles, not one, however,

was confined with them. At the close of the disorder, a few doses of the alexipharmic mixture will be of great advantage in this, as it is in all the exanthematic disorders; strengthen with tonic, corroborant, and aperient medicines. Having strictly followed up the above plan, I have never yet lost a case.

GENUS 5th, *Petechia*—Spotted Fever.

This may be called the pestilential fever of Europe, as in many of its symptoms it bears a great resemblance to the plague. Persons of a lax habit, melancholy disposition, and whose vigour has been destroyed by drastic purgatives, and nervous complaints, are most liable to its attacks. This fever is occasioned by foul air, arising from a number of people being confined, or crowded together in any place not properly ventilated: from putrid animal or vegetable substances, as they are almost alive with insects of the most poisonous descriptions; hence it prevails in jails and hospitals, when they are too much crowded, and when cleanliness is neglected. Persons who live long upon animal food, without a proper mixture of vegetables, or who eat fish or flesh which have been too long kept, are likely to be affected with this fever. Corn which has been greatly damaged by rainy seasons, or long keeping, and water become putrid by stagnation, may likewise occasion this fever, particularly when the air is warm and close. Dead carcases tainting the air in hot weather are also very apt to produce it, and therefore often prevails in countries which are the scenes of war and bloodshed; this points out the propriety of removing burying grounds and slaughter houses to a proper distance from great towns.

I have known some instances of a most malignant spotted fever being brought on in consequence of green wood, from a swamp, being put on shipboard for fuel. I shall only add, that most medical men have supposed the malignant spotted fevers to be highly infectious, and often communicated by contagion. I have before observed that persons who live on vegetable diet generally escape this fever Clorate of lime is found very advantageous; or, indeed any preparation of lime is beneficial. As I mentioned before, those inhabitants of New York and Philadelphia, who had cesspools at the time of the fever, frequently threw into them quick lime, &c.

All putrid animal and vegetable substances undergoing the putrefactive fermentation, and hatching the eggs, from which start into life, innumerable myriads of poisonous

insects, causing various infectious disorders, which might be prevented by cleanliness, or the use of salt or lime, which would at once destroy the insects, and also the putrid effluvia arising from sinks of corruption, which ought never to have been permitted to exist. Many of the insects are invisible without the help of a magnifying glass.

Medical Treatment.

In the treatment of this fever, we ought to endeavour to counteract the putrid tendency of humours, and to assist nature in expelling the cause of the disease. Soon as there is reason to apprehend an attack of the fever give a wine glass of the alterative and purgative medicine: if the putrid fermentation of the stomach is active, it will bring on retching immediately; continue to give a wine glass of the medicine every hour, until the bowels act freely, then put the patient into the bath. Should the stomach be so irritable as to bring on retching every time of taking the medicine, give a clyster of soap-suds, or gruel and castor oil, and put the patient immediately into the bath, medicated with the sudorific medication, No. 1, and keep them in till copious perspiration is obtained, which generally brings the disorder to a crisis; but in weak depraved constitutions we are not to expect a cure so suddenly, as all the dormant humours in the body will be called into action; in such cases, if the bowels are relaxed, give the alterative: if not, give the alterative and purgative, with the bath every day, until the fever has subsided, if the patient's strength will bear it; if not, give the bath every other day: in strong constitutions the bath may be given twice a day. It should be remembered, that one day of fever will produce a greater prostration of strength than a dozen baths. When the fever is subsided give a gentle bath once or twice in two or three days, to correct the putrid tendency, by keeping up a gentle perspiration. In every instance when the disorder shows a strong tendency to become putrid, give a wine glass of the alexipharmic medicine once a day, it will be of service even if the pulse is full, but if it is low it may be given twice a day. When the fever has subsided the patient will require strengthening medicines:—give small doses of the tonic and corroborant, or tonic, corroborant, and aperient, as may be required; if the pulse rises too rapidly, the quantity must be diminished, or discontinued for a time. Should the patient be subject to spasms, the alterative and alexipharmic medicine, given in moderation are the best, and trust to air and diet to give them strength. During the

fever it is of the greatest importance to have the apartments well ventilated, and the room sprinkled with diluted nitric acid, or muriatic acid, and if the patient can be removed for a short time into an adjoining room, the clorate of lime will most effectually cleanse the room, and have it well ventilated, when the patient may be admitted into the room, and kept cool and quiet; the least noise will affect the head, and the smallest fatigue will make him faint.

Regimen.

Few things are of more importance in this disease than acids, which ought to be mixed with the patient's food and drink. Orange or lemon whey, tamarind water, or lemonade, may be drank, as the patient may fancy: if the pulse is low, they may be mixed with wine, in such quantities as the pulse will bear, taking care to lessen the quantity as the pulse quickens above par. If camomile tea, sharpened with lemon acid, will set on the stomach, it may be given in this fever. The food must be light, and frequently given in small quantities, taking care not to overload the stomach; panado, oatmeal gruel, arrow-root, made with water and tapioca, are light and nutritious. When the patient gains a little strength, isinglass, hartshorn jelly, and barley water is excellent. In such fevers the coats of the stomach, and indeed the mucous membrane of the whole body is affected. The use of butcher's meat is inadmissible; chicken soup, made with barley, onions, and parsley, taken in small quantities: a little bit of the chicken may be eaten at the same time. A change to a mild healthy air will be of advantage. Cabbage leaves laid over the throat and chest are efficacious to preserve those important organs—the lungs.

GENUS 6th, *Siphylis*—Venereal Disease.

Linnæus stands alone in arranging siphylis as an exanthem, along with small-pox and measles: he thought himself justified, from the fever which occasionally accompanies the copper-coloured spots on the skin, in an advanced stage of its secondary symptoms, or, perhaps, from the fever which, on the first appearance of the disease, unquestionably accompanied it, and uniformly preceded the eruptions.

But it is an extraordinary fact to which "all the contemporaneous writers bear witness, that siphylis, when it first broke forth upon the world, and, indeed, as it is described in Fracastoria's poem, was not only called the plague, but was, in truth, a specific fever, attended with most violent putrid symptoms, together with carbuncles,

buboes, and other glandular abscesses, which discharged a malignant sanies, often fatal, and even when recovered from, leaving the most melancholy marks of its ravages.

And hence in many places the infected were as much exiled from the community by a line of circumvallation drawn around them, as in the case of plague. In Scotland, indeed, they were strictly prohibited all medical assistance, and inhumanly left to the effects of their own licentiousness. For Mr. Arnot gives the copy of an order from the Privy Council of Edinburgh, which equally banished to the Island of Inch-Keath, those who were affected with the disease, and those who undertook to cure it.

Nothing ever gave me a clearer view of the superiority of the penetrating mind, and correct judgment of Linnæus, than classifying syphilis along with the infectious diseases. I cannot, however, omit taking notice of what modern practitioners call secondary symptoms; which I verily believe are caused by the use of mercury, causing a decomposition of the bones in various parts of the body; of which I have the most extensive proofs. A medical gentleman in Beccles, informed me he had seen a number of cases, who had applied at the Dispensary of that place, afflicted with indigestion after taking calomel and blue pill for a fortnight or three weeks—they went away relieved. In five or six weeks after, they returned with what appeared to be syphilitic sore throats; they protested against ever having had the disorder; which quite astonished him. He wrote to London for advice, but as he could get no satisfactory information as to the extraordinary cause, he was desirous of my opinion. I had found the butter along the Yarmouth Flats, where there is so great a quantity of buttercups, the worst I had ever tasted; the sheep, and some of the cattle, diseased with fluke and consumption; which taken into the stomach, especially the livers and lungs (parts which the poor are fond of and get cheap), an attack of indigestion is sure to follow. Giving blue pill and calomel on such acrid stomachs, converts the mercury into the most corrosive poison, somewhat like corrosive sublimate of mercury, which falls on the cartilaginous bones and joints of the body; particularly the nose, and cartilage of the windpipe, and hence the great mass of such patients. Out of the large number of scrofulous patients that I have had with diseased or carious bones, I have been enabled to trace most of it to the use of mercury. Sir Astley Cooper, in his lecture on syphilitic diseases, as reported in the *Lancet*, observes,—"He is not able to distinguish between syphilis and mer-

curial disease." He illustrated the fact by observing, that an individual called on him; he remarked to the patient, he was poxed up to the eyes: the patient doubted the reality of his being so. He told him it was so; but that he thought him too weak to undergo a course of mercury, and sent him into the country, to live on a milk and vegetable diet, in order to renovate his strength, before putting him under a course of mercury. When he returned from the country, to his great astonishment, the man was perfectly well. He observed to his class, that nothing but confession on the part of the patients—and even confession would not always—be a sure guide in discriminating the disease. What a melancholy reflection to the virtuous part of the community, to have their noses eaten off their faces, and but too frequently made cripples of; and, in the estimation of the public, placed on a level with the most profligate, by being so disfigured and maimed by that most destructive drug: but, certainly, no medical man can justify himself in diseasing the poor children to such a fearful extent as is now the practice. I have only to observe, there is no disorder that children are subject to that I would not undertake to cure, without the use of mercury, or any other mineral poison, in a shorter time, and with perfect safety to their bodies; and should, in my own estimation, think myself highly culpable if I diseased, maimed, or disfigured one child. The large portion of children that are rendered cripples, and disfigured for life, is truly humiliating to the medical profession. There are a few of the most eminent in the profession who do not give mercury in syphilitic diseases; of such are Drs. Thompson, and Mackintosh, in Edinburgh. I have cured the disorder in its most inveterate form, with the lobelia, and other sudorific remedies, when mercury has failed. All cases which are of a scrofulous habit, are in the greatest danger from the use of mercury, as it frequently diseases their bones.

Mr. Wright, surgeon and aurist to her late Majesty, in his pamphlet on mercurial disease, observes, he never met with disease in the bones of the head, but he could trace it to the use of mercury; and more particularly notices affections of the ears, eyes, nose, and throat, brought on by the use of that most destructive drug. The only reason of the failure of the lobelia syphilitica in Europe in the cure of syphilis, is, that the plant has not been collected from its proper locality, and the proper elaboration of the sap, and care taken to preserve it from the action of the air and

moisture. There are a number of vegetables that the American Indian doctors make use of in the cure of that most humiliating disease, so destructive to the souls and bodies of a large mass of the inhabitants of this kingdom, and entailing so much misery on their unfortunate progeny. I am of opinion, that syphilis, scrofula and cancer might be entirely banished from this kingdom; for when syphilis is complicated with a scrofulous or cancerous habit of body, its effects are terrible indeed.

ORDER 2nd, *Sporadici*—Not Contagious.

GENUS 7th, *Miliaria*—Miliary Fever.
——— 8th, *Uredo*— Nettle Fever.
——— 9th, *Aphtha*—Aphthous Fever.

GENUS 7th, *Miliaria*—Miliary Fever.

Medical men are at a loss to account for the cause of this as of all other fevers; they will sometimes have this to be a primary disease,—at other times a symptom of some other: they might have observed, that not only the miliary fever, but also the nettle and aphthous fevers are produced from the bad qualities of the food which the patients have been using, and which I shall take notice of when treating of erysipelas. When the patient feels a burning itching and pricking pain under the skin, and afterwards pustules of a red or white colour begin to appear; then, if properly treated, the symptoms will soon abate. The perspiration, as the disease advances, has a peculiar fœtid smell, which might point out to a mere novice that acrid and putrid food was the cause.

Medical Treatment.

In this, as in all eruptive fevers of whatever kind, the chief point is, to prevent the sudden disappearance of the pustules, and to promote their maturation, which has been a consideration with all medical men, more especially when the fever approaches to a putrid state; but in all cases, where the eruption disappears, the bath will bring it out, or run it off altogether. In eruptive fevers, the patient ought to take a dose of the alterative medicine half an hour before going into the bath; and, on just going in, a draught of warm toast water, which will bring out the perspiration with less heat and exhaustion to the patient. The bath to be medicated with sudorific medication. If the eruption shews the least tendency to become putrid, the tonic medication will be of great service; also the tonic, corroborant,

and aperient medicine, will be advisable, giving from two to four table spoonsful twice a day. The alexipharmic may be given alternately. I have frequently seen, in depraved or scrofulous constitutions, a powerful absorption of the membrane of the body take place, so that they have appeared to be going off as in consumption,—they would rally again; and, from appropriate diet and medicines, the best cures have been performed, not only of the fever, but of the constitutional malady under which they may have laboured.

GENUS 8th, *Uredo*—Nettle Fever.

Is rather a troublesome, than a dangerous complaint.

Medical Treatment.

A cooling diet, the alterative and purgative medicines, and the bath, with sudorific medication, will frequently bring the complaint to a close in a few days.

GENUS 9th, *Aphtha*—Aphthous Fever.

Is a very destructive disorder, if it be not properly treated; it is found under three varieties—a white, a black and a chronic. The first, appearing in infants, soon after birth, and often extending from the mouth down to the intestinal canal, mostly with fever. The disorder is produced from the mother's milk,—the mother having been living on such acrid milk, butter, and butcher-meat, as we are in the habit of feeding them on. The acrimony corrodes the mucous membrane of the infant's mouth, stomach, and bowels, producing minute vesicles and sloughs.

Medical Treatment.

Give the mother the alterative and purgative medicine, night and morning; fowl soup, made as directed in the cookery for the sick; gruel, arrow-root, cocoa and coffee for breakfast and supper. If the child's bowels are much relaxed, give the mother the tonic and corroborant medicine, night and morning, until they become regular: the child's mouth to be washed with sage tea, and a tea spoonful to be swallowed; a few drops of turnip syrup made with sugar-candy, may be given with advantage: if the mother continue the cooling diet for a few days, it will no doubt in a short time bring the child to a healthy state.

The black and chronic varieties, are mostly an accompaniment of some fevers or cachexia attendant on old age, when the vital resources are failing, but more particularly

those who have been subject to erysipelas, acute inflammation, typhus or malignant fevers; and especially those who have diseased stomachs, as is the case with the inhabitants of London. It works its way upwards and downwards, corroding the whole mucous membrane. Hypocrates says, that in such cases, when the patients are turned of fifty, a cure is not to be expected. Medical men in our day, say that in the drooping of old age, they can only palliate the disorder until hectic fever and diarrhœa close the scene. I have, however, succeeded in a number of cases more than fifty years of age by means of the vapour-bath, and my own plan of medical treatment and diet, when considered perfectly hopeless. Persons residing in London, who have arrived at an advanced period of life, what fluid is left in them is highly acrid; and when the ulceration of the mucous membrane is extensive, the blood rushes to the seat of the irritation, and hence follow inflammation of the mucous membrane of the wind-pipe, the lungs, gullet, stomach and bowels. It is not to be wondered at, that such patients sink under the present medical treatment, with the inefficient means which they have in their power.

Medical Treatment.

Here the medicated vapour-bath rises as superior to the present medical treatment, as the sun is to the stars. The bath draws the vital fluids from the seat of inflammation to the surface of the body, forcing it to the minute blood-vessels, where the circulation has been so languid and impeded, communicating life and vivacity to the whole frame.

It has often been a source of the most exquisite pleasure to me, to behold the animation of those whose locks were silvered o'er by the hand of time; and, when all hope was gone, to see them enjoy life once more.

Begin with the alterative medicine and hepatic pills; give the bath with the sudorific medication. The demulcent is here, where the coats of the stomach are either thin or destroyed, of the greatest importance, given in small doses; it prevents the action of air on the ulcerated or inflamed membrane, is a great secretive, and improves the quality of the blood; it is both diet, medicine and plaister. The alterative and demulcent may be continued in small and repeated doses for a week or two, then begin with gentle tonic treatment. If the volume of blood increases, increase the action of the bowels, and the bath, where you may regulate the action of the pulse at pleasure. Where

the mucous coats have been injured and healed, if the volume of blood is allowed to increase, it will be sure to affect the whole membrane again. In such cases the use of butcher-meat, milk and butter, if in the least contaminated by weeds, must be discontinued, and vegetable diet strictly adhered to; indeed, all such cases ought to live on a vegetable diet: and in most cases, even where a cure has been effected, I should advise a vegetable diet to be substituted for butcher-meat.

I have had a number of the worst cases of aphtha, that are now perfectly cured: one in particular, of rather a robust constitution, who had the whole mucous membrane destroyed. For a month she could not turn herself in bed for fear of bringing on bleeding in the stomach and bowels. By the anti-hæmorrhagic, alterative, demulcent, and mild tonic treatment, and the bath medicated with sudorific, nervine and tonic medicine, also appropriate food, for which see diet, she is now in good health.

I will give a statement of one case, out of the many that I have had, as a rule to go by :—

About four years ago, a lady came to me who had previously been much subject to indigestion, inflammation and fever. This lady had taken long and strong courses of mercury, which had injured and weakened the cellular membrane of the body; the bowels were thereby rendered so torpid, that the most active drastic purgatives were resorted to. Her complexion was very pale, and the appearance of dropsy was beginning to shew itself in her legs: coldness of the extremities and excessive nervousness. The bath and alterative treatment was attended with the best possible success. She could not bear tonics of any description. A strengthening diet, air and exercise was resorted to with the most beneficial effects. She went to the south-west coast of England, and made use of milk, butter and cream, which affected the mucous membrane of the whole body. In November, 1828, she came back to Bayswater, with a skin as yellow as an orange, her eyes bloodshot, pulse 125, and a violent catarrhal fever, attended with a hard, violent cough without expectoration, and excessive prostration of strength. The bath and alterative medicine reduced the pulse to 84 in three days; the cough, however, continued; and in a day or two after, a tumour discharged from the lungs a large quantity of thick ash-coloured and green matter; and on the day following, a considerable quantity of fatty-looking matter was discharged. The cough continued, with a copious expecto-

ration of mucous and greenish-looking matter. In this state I thought she would go off in a confirmed consumption. I became alarmed, and wished her to have further advice: she answered, she had no objection to see any one I might choose to bring, but would not take any medicine but what I prescribed. Accordingly I brought a physician, who examined her very closely, and who advised me to follow the plan of keeping her in a room at a temperature of from 60 to 66° night and day during the winter, and to continue my mode of medical treatment, with the baths and plan of diet, as the only likely means of saving her life; and observed, that he did not believe any of his medical brethren could bring her through the winter without the use of the bath; and that if digitalis and other narcotics were given, it would be attended with the most fatal results. He urged me to go on in my own course; and if I were enabled to bring her through, it would be a greater triumph than any he had ever known. Finding I had nothing to hope from any medical advice, I followed up my peculiar mode of treatment. When she rallied a little, I allowed her to take a little partridge, which brought on a putrid ferment, and caused a violent discharge of bile and seriously injured the coats of the stomach. The edges of the tongue became covered with pimples and blisters, also the throat and windpipe; with excessive heat, and soreness of the stomach, which extended through the whole intestinal canal. A copious bilious and mucous discharge from the bowels followed.

The alterative and demulcent, with the bath administered with sudorific and nervine herbs, had the most beneficial effect. I have a large quantity of demulcent powder, taken from the liber or inner rind of the bark of the demulcent trees, which is ground and packed so as to be excluded from the air. They produce a better effect on all diseases of the mucous membrane, than any other medicine that was ever invented. I gave the patient the bath once or twice a week during the winter; and as she could not bear tonics, I procured a goat, and fed it on hay that was free from poisonous weeds, bramble, rose, willow, and other tonic branches. The milk, when first given to her, was diluted with water, which made it sit more easy on the stomach; it was used in puddings, cocoa and coffee, with good effect. Plants of the teucrium marum, in pots, were disposed in the room, which had a very beneficial effect on the nerves. The following summer her appearance was so much improved, that her friends could scarcely believe

she had been sick.—I have given this short account of a most hopeless case, in order that the same beneficial mode of treatment may be extended to others, wherever the baths are established.

ORDER 3. *Solitaria*—Affecting a Part of the Body only.

GENUS 10th, *Erysipelas*—St. Anthony's Fire.

In describing this terrible, universal, and but too frequently fatal disorder, I have first to observe, the real cause has not at any time been given by any of our modern writers on the subject. One will have it is epidemic; another says it is contagious; another, infectious. I really wish those classical writers had given more definite terms whereby those who read may understand; as all the three terms admit of the same definition,—which means, inhaling noxious air and insects, or coming in contact with persons affected with animalcula, such as the itch, plague and other infectious disorders; but not one word about the noxious stuff we eat,—which is the true cause of the disorder in question; which complicates and combines its destructive effects with the various infectious disorders above described, and most of those highly inflammatory about to be taken notice of. In order to guard the public against the stumbling-block that lies in their way, I will introduce an obsolete term, that will at once make mankind pause before they are dashed against that rock, which has been the fate of unnumbered millions; embittering their lives, and making this a world of wretchedness and woe; unfitting us to receive with thankfulness that portion of happiness which we might enjoy in this life. I tremble for the fate of a large portion of the inhabitants of this country. Our forefathers called this disorder by the appropriate name of Venefic, or poisoning; that is, by using such food, drink, or medicine of a poisonous quality, which is inimical to human nature, and highly destructive to life. The poisons are in the extreme degrees of heat and cold, or are narcotic, acrid and corrosive in their effects; these are the stumbling blocks which lie in the way of the happiness of mankind; these that stimulate the passions and bad propensities of our youth,—hurrying them on to commit crimes, which come not under the cognizance of the law, but yet are displeasing to the Almighty, destructive both to soul and body, and disgraceful to the nation that gave them birth in permitting such evils to exist. Physical evils bring on the most awful consequences. The disorder in question is

produced from the buttercup, and other hot, acrid and corrosive poisons, heightening the disorder according to the quantity eaten. It is called St. Anthony's fire; and it certainly is a consuming fire, as many from experience can testify. I am surprised that a certain medical gentleman, a doctor of physic, should think that people may eat of consumptive, scrofulous, fluky and dropsical beef and mutton, and not become diseased; can any one suppose, that a person of delicate habit can eat of a sheep that died with cholera morbus, without being affected by it?

I say it is impossible,—it is one of the incontrovertible laws of nature,—that to eat and drink disease will beget disease. I have had this week, ending June 25th, ten patients affected with cholera morbus, (I have no doubt that its ravages this year will be severely felt,) every one of whom were diseased from eating mutton, lamb, and veal, which became putrid on their stomachs, and brought on a violent inflammation of the stomach and bowels, attended with retching and spasm, and great nervous irritability; after being put into the bath the inflammation subsided; while the fiery fluid was passing through their skin, it made the erysipelatic eruptive patches appear on different parts of the body. Veal and lamb, nourished by diseased mothers, is the most dangerous food a delicate person can take: and how many lambs have been killed this summer that have not been nourished by diseased mothers, I assert, not one in twenty. Although the cattle are not so diseased as the sheep, yet the milk being a compound of poisonous oils, it makes the meat of the calves very apt to produce derangement of the digestive organs, and subjects them to attacks of erysipelas. The use of butter aggravates the disorder beyond any other substance. The number of cases that have come under my treatment is terrible to behold: I have beheld it in all its various forms, both general and local, internal as well as external.

I shall give the case of a lady who is willing to be referred to on any particular occasion; which she is induced to do from gratitude for her merciful deliverance from a life of pain and suffering. She had been for upwards of twelve years attended by eight of the most eminent of the faculty, without deriving any benefit; during that period she was constantly affected with internal heat, and violent spasms; I never witnessed a more afflicted sufferer. Twelve months before she came to me she was examined by an eminent accoucheur, who said the womb was much enlarged and inflamed; he attended her for about a year without the

least benefit. When she came to me, I examined her, and, to my great astonishment, found her womb greatly enlarged; the vagina, and as far as could be felt, studded with erysipelatic pustulary eruptions, some of them in a state of ulceration; it was perfect torture to pass her water. I began with the alterative medicine and hepatic pills, and the bath, which relieved the spasms; I caused her to inject stimulating lavements to excite the pustules to a discharge: the whole of the substance in the womb came away; the smell was as offensive as that from cancer. Soon as her system had a more healthy appearance, I gave her the tonic, corroborant, and aperient, and lavements of the geranium maculalum, which immediately relieved her, and in three months of medical treatment and baths she was perfectly cured, and in better health than she had enjoyed for twenty years before. I have had a number of cases of a similar description, most of them affected with leuchorrhœa, or whites, which chiefly arises from erysipelatic inflammation and ulceration; it unhinges the nerves, and embitters the lives of a large portion of the finest women of this country; complicating its baneful effects with rheumatism, gout, bronchites, consumption, and various other chronic diseases in the aged, and with the infectious diseases common to children, and particularly with scrofula, in all its forms. Erysipelas often gives a bloated unhealthy appearance, the acrid food, which is the cause, overloading them with gross unhealthy fat, just like the animals which they partake of. It would be impossible to disease them to such an extent if they were fed on wholesome food. I believe if Satan were to have his choice of the various species of misery whereby he might afflict the human race, and increase his power and kingdom, he could not more effectually accomplish his purpose, than by blindfolding the people, and making them eat and drink the produce of the infernal poisonous weeds that are covering the fields of this kingdom: and by administering mortal poisonous drugs, for the purpose of alleviation and cure. Can we wonder at the disjointed state of the world, and the cruel and unnatural conduct of man to man, when this state of things are allowed to exist.

I have faithfully given my views on the subject because I know it is true, I wish some experiments may be made, that the people may be convinced that the description is not overdrawn. Before entering on a description of a second class of diseases, it may be proper to observe, that the causes which induced the before-mentioned sporadic diseases, particularly erysipelas, tended much to aggravate

the exanthematic or infectious disorders, and powerfully aggravates the two classes about to be named. I shall not enter into the diseases at large, as I cannot at this time do justice to the subject, and it would increase the work to an inconvenient size. The diseases now to be mentioned are caused by drinking marsh, putrid, or stagnant water, combined with the food. The fevers vary in appearance when subjected to the smell of animal and vegetable substances, undergoing the putrefactive fermentation, and their malignity is greatly increased by using them in the food. The effluvia of all putrid substances readily combines with all food and drink, making it highly destructive to life and health. All flour and meal ought to be kept well excluded from the air: I have known a whole family afflicted with typhus fever through using spoiled oatmeal; I believe every one is aware that every kind of food and drink is deteriorated by the action of common air; how comes it that the grocers, and many people are allowed to expose their provisions to the action of the mephitic air of London, when the health of the inhabitants and their customers suffer by it? If the grocers were asked if it were good policy, they would say no: if the Lord Mayor and Corporation of London, whose business it is to protect the lives of the inhabitants, were asked if the policy were good, they would all say no,—and yet it is suffered.

I shall now present a frightful catalogue of the effects of the above named causes, in the second class, as arranged by Linnæus.

CLASS 2nd, *Critici*—Critical Fevers.

ORDER 1st, *Continentes*—Of the continued kind.

GENUS 11th, *Diaria*—Ephemeral Fever.
——— 12th, *Synocha*—Ardent Fever.
——— 13th, *Synochus*—Malignant Fever.
——— 14th, *Lenta*—Slow Fever.

ORDER 2nd, *Intermittentes*—Agues.

GENUS 15th, *Quotidiana*—Quotidian.
——— 16th, *Tertiana*—Tertian.
——— 17th, *Quartana*—Quartan.
——— 18th, *Duplicana*—Double Tertian.
——— 19th, *Errana*—Erratic Fever.

ORDER 3rd, *Exacerbantes*—Remitting Fevers.

GENUS 20th, *Amphemerina*—Continued Fever, with a Quotidian Exacerbation.

GENUS 21st, *Tritæa*—Continued Fever, with a Tertian Exacerbation.

——— 22nd, *Tetartaphya*—Continued Fever, with a Quartan Exacerbation.

——— 23rd, *Hermitritæa*—Tritæa complicated, or compounded with the Amphemerina.

——— 24th, *Hectica*—Hectic Fever.

Linnæus allows the tertian to be the root of all the fevers critica: I really believe they are all complicated with the above causes; they are rendered more mild by dry pure air, and their malignity increased by hot sultry unhealthy situations, also in all marshy countries, by the use of marsh water. Linnæus observes, in marshy countries, where the above fevers prevailed, by draining the swamps the fevers entirely subsided.

I have recommended the same plan in America, with the same success. The Dutch, who live in the most marshy country in Europe, by adopting such a wise policy in canalling, and draining the swamps and purifying the soil with salt and lime, have at this time the best milk, butter, and butcher meat of any country in Europe; and in consequence of which they enjoy better health than we do in England with all our great advantages of a superior soil and climate. In all the above fevers, the stomach and bowels are more or less inflamed or ulcerated; and when matter is formed and taken into the blood, the shivering fits come on, nature exerting all her powers, as before mentioned when treating of fevers, causes the hot fit, which is succeeded by fever and delirium; sometimes blood is discharged into the stomach and bowels, and absorbed, which produces the most violent delirium. In some cases of the fever the corrussent water will, absorbed, produce all the above effects, rendering the whole body a corrupt mass of disease.

Medical Treatment.

The first thing to be attended to is to relieve the bowels by giving the alterative and purgative medicine, if the bowels are very costive; in order to save time give a lavement; put the patient in the bath with the sudorific medication; if the fever is but just come on, the bath will bring it to a crisis at once. If the stomach and bowels are much injured give the alterative and demulcent medicines alternately, and the bath as often as the constitution can bear; and when the violence of the fever abates, begin with the tonic, corroborant, and aperient; and when the fever has

the least tendency to become putrid, the alexipharmic is the most immediate in its effects; if there is any symptom of spasm, the tonic must be administered. The incipient stages of the fever may always be subdued at once, where the vapour bath can be obtained: perspiration has been the grand desideratum with medical men, in all ages, in cases of inflammation and fever, and the bath, when medicated with herbs, is best calculated to cool the inflammation and fever, and must be allowed to be the best, safest, and most expeditious method ever yet invented, as it discharges the noxious gasses cooped up in the cellular membrane of the body at once, and will absorb into the system any medicine taken into the stomach that is calculated to neutralize the noxious cause of the disorder. It sometimes happens that the inflammatory, nervous, and putrid symptoms are so blended together as to render it very difficult to determine to what class the fever principally belongs: in this case the greatest caution and skill are requisite; attendance must be paid to those symptoms which are most predominant, and both medicines and regimen adapted to them.

In the third class the disorders are the most destructive to life, and require prompt treatment.

CLASS 3rd, *Phlogistici*—Inflammations.

ORDER 1st, *Membranacei*—Of Membranes.

GENUS 25th, *Phrenitis*—Of the Meringes of the Brain.
——— 26th, *Paraphrenitis*—Of the Diaphram.
——— 27th, *Pleuritis*—Of the Pleura.
——— 28th, *Gastritis*—Of the Stomach.
——— 29th, *Enteritis*—Of the Bowels.
——— 30th, *Practitis*—Of the Anus.
——— 31st, *Cysticis*—Of the Bladder.

ORDER 2nd, *Parenchymatici*—Visceral Inflammation.

Genus 32nd, *Sphacelismus*—Inflammation of the Brain.
——— 33rd, *Cynanche*—Of the Throat.
——— 34th, *Peripneumonia*—Of the Lungs.
——— 35th, *Hepatitis*—Of the Liver.
——— 36th, *Splenitis*—Of the Spleen.
——— 37th, *Nephritis*—Of the Kidneys.
——— 38th, *Hysteritis*—Of the Womb.

ORDER 3rd, *Musculosi*—Muscular Inflammation.

Genus 39th, *Phlegmone*—Inflammation of an external part.

In reading the works of the various authors on inflammation, their pathological notions on that subject are enough

to have tried the patience of Job and Socrates to follow them through their various speculations on that momentous subject. Dr. Cullen refers inflammation to the same kind of spasm which he regarded as the proximate cause of fever; and hence derived the obstruction from a constrictive resistance in the vessels of the part affected: which, he farther supposes, forms but a mere link in the tensive chain of a phlogistic diathesis, which more or less runs through the entire habit at the time of inflammation, and constitutes the predisposition to its rise and progress.

"That a spasm," says he, "of the extreme vessels takes place in inflammation, is presumed from what is at the same time the state of the whole arterial system. In all considerable inflammations, though arising in one part only, an affection is communicated to the whole system; in consequence of which an inflammation is readily produced in other parts besides that first affected. This general affection is well known to physicians under the name of diathesis phlogistica. It most commonly appears in persons of the most rigid fibres; is often manifestly induced by the tonic or astringent power of cold; increased by all tonic and stimulant powers applied to the body; always attended by hardness of the pulse; and most effectually taken off by the relaxing power of blood-letting. From these circumstances it is probable that the diathesis phlogistica consists in an increased tone or contractibility, and, perhaps, contraction of the muscular fibres of the whole arterial system."

"Mason Good observes, "Now this is not only to admit the difficulty, but to fall prostrate before it. It is to admit what at once settles the entire question. The cause and the effect are made to change places: and the phlogistic diathesis is as broadly stated to originate from inflammation in a particular part, as inflammation in a particular part is stated to originate in the phlogistic diathesis."

Robert Hooper, M.D., in his *Medical Dictionary*, has reduced inflammation to two divisions, viz.: phlegmonous and erysipelatous: the derivation of the term, is from *inflammo*, to burn. He observes, that the occasional and exciting causes of inflammation are very numerous; they however may generally be classed under external violence produced either by mechanical or chemical irritation, changes of temperature, and stimulating foods. Fever often seems to be a remote cause; the inflammation thus produced is generally considered as critical. Spontaneous inflammation sometimes occurs, when no perceptible cause

can be assigned for its production.. Scrofula and syphilis may be considered as exciting causes of inflammation.

Sir Astley Cooper says, that Scrofula is not the cause of inflammation, but inflammation is the cause of scrofula. The true cause of it is, as Linnæus has defined, from substances producing acid ferments in the stomach acting on the serum of the blood, and being the exciting cause of critical fevers, as before mentioned, and I cordially agree with his definition, as I have been able to trace them to their true cause and effect, in my extensive experience and observation in the torrid, temperate and frigid zones, on all sorts of constitutions, varying in degree and appearance, according to the power of the acids produced from the food made use of. Linnæus farther observes, that putrid ferments act on the crassamentum of the blood, and are the cause of phlogistic diseases or acute inflammation.

The qualities and powers of the various vegetable substances are described in the second volume of my large work—which are narcotic, acrid and corrosive; and when used internally, will produce inflammation in different parts of the body: for example, ipecacuanha, will act on the stomach; aloes, will act on the rectum; the solanums, and opium, will act on the brain; buttercups, will act on the whole mucous membrane, and more particularly destroys life by their specific action on the nervous system: in fact, there is no one organ of the whole body but will be specifically acted upon by the different poisonous plants; and when eaten by animals, will produce a constitutional disease in the animal, and consequently on those that use their milk, butter and flesh. Hence the constitutional diseases that exist to such a fearful extent throughout this kingdom. For when a sufficient quantity of animal food, particularly such as is rotten with disease, with which our markets are so abundantly supplied, will cause a putrid ferment in the stomach if eaten to any extent, and produce its specific action and inflammation on the various organs of the body, particularly when called into action by cold air acting on the different parts kindling up the flame, which, if not immediately prevented, will consume and destroy the organs of the body, and even life, in a short time. The general mode employed to subdue inflammation is venesection, cupping, leeching, blistering, fomenting, and, in various cases of acute inflammation, nearly the whole contents of the pharmacopoeia is taken into their unfortunate stomachs. If the diseases are palliated, the extreme debility that the patients are reduced to, frequently confines

them to their beds for a month, and to their rooms for two, three or four months longer, when they revive again; and the blood-vessels are filled; which cannot be by good blood, as it takes a considerable time to make good crassamentum, but what I should call sweel. When the patient becomes liable to take cold, it subjects him to the same discipline, until the acute inflammation is converted into a chronic inflammation: he may then be considered as a life-patient.

With regard to the proximate cause of inflammation, it has been the subject of much dispute. Galen considered phlegmon to be produced by a superabundance of the humor-sanguineus: Boerhave referred the proximate cause to an obstruction in the small vessels, occasioned by a lentor in the blood: Cullen and others attributed it rather to an affection of the vessels than a change of the fluids. The proximate cause, at the present period, is generally considered to be a morbid dilatation, and increased action of such arteries as lead and are distributed to the inflamed part.

Medical Treatment.

In all the above cases of inflammation, give the alterative or alterative and purgative freely, if the bowels are costive and loaded with excrement, give a clyster; put the patient immediately into the bath medicated with sudorifics; apply warm cabbage leaves to the inflamed part, and exclude it from the active air; if the inflammation runs high, give the bath twice the first day, and once on the second: when in most incipient cases, the inflammation will be cured. I have had many patients who were annually subject to inflammation of the bowels, and who, after going through the usual mode of treatment, became weaker and weaker. I shall here describe a most irritable case, as a guide to shew how such cases ought to be treated. A lady, who had been often subject to such discipline, and whose friends were expecting every attack would prove fatal, was persuaded by a friend to try my system of treatment; to which she consented. I was sent for in haste. The portable bath was sent to her chamber. I ordered her the alterative medicine, and a clyster, which brought away a considerable quantity of putrid fæces. I had her immediately put into the bath, when she had been in a sufficient time to relieve the spasms, she had another copious relief of hard, knotty, and putrid fæces. I ordered a demulcent clyster, which occasioned a small relief; and on going to bed, I directed a small quantity of demulcent lavement to be given, which remained all

night: she drank barley-water, acidulated with tamarinds; had a comfortable sleep, and the next morning wished for some breakfast: in a week she was well. This took place eight years ago, since which time she has remained in good health.

In all cases where mortification has taken place, the alexipharmic medicine must be given freely, and the stomach and bowels freely relieved before you venture to give them the bath, as whatever is in the stomach is drawn into the system, let it be morbid or healthy. Nothing will correct the putrid tendency equal to the alexipharmic. The bowels must be kept regular. The tonic and corroborant, or tonic, corroborant and aperient, are in all phlogistic diseases of great importance.

When copious perspiration is produced by the bath, bleeding is not necessary, except in the inflammation of the eyes or brain, when a few leeches may be put on the back of the neck and temples; this may be done on going into the bath: the leeches will draw freely, and the bath and bleeding will relieve the pain in the head.

Regimen.

The antiphlogistic treatment to be followed, both as regards food and medicine: great caution is necessary to keep the bowels in a tranquil state: and as all putrid ferments are caused by acrid and alkaline substances, the propriety of mingling in their food and drink a small quantity of acids, as tamarinds, oranges, lemons, &c., will be obvious.

Class 4th, *Dolores*—Painful Diseases (most of which are unattended with Inflammation).

Order 1st, *Intrinseci*—Of Internal Parts.

Genus 40th, *Cephalagia*—Head-ache.
——— 41st, *Hemicrania*—Meagrim, or Pain of one Side of the Head only.
——— 42nd, *Graveolo*—Dull Pain of the Forehead.
——— 43rd, *Ophthalmia*—Pain of the Eye.
——— 44th, *Otalgia*—Ear-ache.
——— 45th, *Odontalgia*—Tooth-ache.
——— 46th, *Angina*—Pain in the Throat with a sense of Suffocation.
——— 47th, *Soda*—Heart-burn.
——— 48th, *Cardialgia*—Pain at the Scrobiculus Cordis, with tendency to Faint.

Genus 49th, *Gastrici*—Pain of the Stomach.
——— 50th, *Colica*—Pain of the Bowels, near the navel.
——— 51st, *Hepatica*—Pain of the Right Hypochondrium.
——— 52nd, *Splenica*—Pain of the Left Ditto.
——— 53rd, *Pleuritica*—Stitch, or Pain of the Side.
——— 54th, *Pneumonica*—Pain and Oppression on the Lungs.
——— 55th, *Hysteralgia*—Pain of the Womb.
——— 56th, *Nephritica*—Pain of the Kidneys.
——— 57th, *Dysuria*—Pain of the Bladder.
——— 58th, *Pudendagra*—Pain of the Pudenda.
——— 59th, *Proctica*—Pain of the Anus.

Order 2nd, *Extrinseci*—Of External Parts.

Genus 60th, *Arthritis*—Periodic Pain of the Joints.
——— 61st, *Ostocapus*—Fixed Pain of the Joints.
——— 62nd, *Rheumatismus*—Pain of the Muscles when moved.
——— 63rd, *Volatica*—Flying Pains of the Vessels.
——— 64th, *Pruritus*—Excessive Itching of the Skin, without Eruption of any kind.

In the fourth class of diseases, what a fearful catalogue of aches and pains attend the unfortunate sufferers. As the causes and effects of the fourth class are generally produced by the first, second and third class of diseases, and from the baneful effects of the poisonous drugs given for the pretended purpose of alleviation and cure, which still lurk in the system, and produce not only the painful disorders of the fourth class, but complicate and combine their pernicious effects with most of the diseases in the seventh class about to be described; for as individuals increase in years, the effects of the potent poisons still lurking in the system, particularly in the nervous system, Proteus-like, continually changes shape, and exhibits their effects in the most appalling forms.

There is a genus of disease of the nerves not known to Linnæus, called by the French *tic douloureux*. This terrible malady is the most painful of all disorders; resembling the lancinating pains of cancer, to which, in its inflammatory form, it bears a close resemblance: but as it never ulcerates, I think it may be properly arranged in the present class, as being the king of tormentors. Its devoted sufferers are prodigiously increasing in number, and the disorder

in virulence. What a melancholy reflection to know, judging from cause and effect, the immense number of victims preparing to undergo the appalling effects of that most dreadful scourge. I have had a number of cases of tic doloureux; and those who have given the bath and medical treatment a fair trial, have been cured, with the exception of two. The length of time to perform a cure is in proportion to the time the disorder has existed: when it first attacks the patient, I have effectually cured it in three weeks, and in some instances in one week. One of the cases of failure was occasioned by the nerves of the cheek being cut shorter, so that the bath and medicines could not reach the ramifying branches that pervade the lower parts of the lips and cheeks, which were separated from the main branches of the nerves; but the nerves of the head and neck, which were equally affected, were perfectly cured, and the individual is in better health than he has enjoyed for the last twenty years.

Most of the diseases in this class have become constitutional or local: sometimes they affect the nerves, the muscles, the cellular and adipose membrane, and frequently the bones. When a change of structure has not taken place, a cure may reasonably be expected. Most chronic cases are liable to attacks from bad aliment: the least deviation from appropriate food and drink will bring on the pain, which will continue until the stimulating effects of the cause are over. Cases that are constitutionally affected, take a long time before a cure can be performed, as the whole diseased cellular and adipose membrane of the body must be absorbed, and a healthy deposition obtained in its room, which can never be accomplished without the aid of appropriate diet.

Medical Treatment

Give the alterative and hepatic pills, or the alterative and purgative: excite the glands to a preternatural action, also the kidneys, bowels and exhalents, by the use of the bath, taking care that a sufficient supply of wholesome food is given to deposit in its room, until you change the whole constitution. When the nerves are affected, the nervine medicines and medication are to be employed. When the disease is caused by animalcula, as is the case with that inflammatory species called Egyptian ophthalmia, which is caused by a small worm found in spoiled lemon-juice, and other natural acid fruits. I first discovered it at Washington, in the matter exuding from the

eye; and by the help of a solar microscope, ascertained it to be the same kind of worm as I had observed in spoiled lemon-juice. A clergyman who had visited one of the officers that came from Egypt with the disorder, caught it either by coming in contact with the officer, or by eating some fruit, I am unable to say which. Three months' blistering, bleeding and depletion, by cathartics, only tended to aggravate the disorder. When he came to the bath, his eyes appeared as if floating in blood. I medicated the bath with the Teucrium, and gave him an infusion of it to drink, and continued to give it alternately, with the alterative and purgative medicines. When he had taken a second bath, no worms could be found alive; and after taking a few more baths, he was perfectly cured.

As the Teucrium had been successfully employed in the cure of the plague, I thought it probable it would cure ophthalmia; and the beneficial results proved that I judged correctly. In a few weeks, many persons who had the disorder were perfectly cured.

How simple the remedy, yet how efficacious, when compared with the great fuss made about the disease. When the troops came from Egypt, what a prodigious expenditure of money, and loss of sight, took place, which might have been saved by the timely use of the bath and simple but efficient remedies. One of the unfortunate beings who had the ophthalmia went to Paris, and consulted one of the first physicians there; who, perceiving his sight irrecoverably lost, took his fee, and made the following laconic remark, by way of a prescription: "Your English surgeon has put your eye out" I have also had several patients affected with purulent ophthalmia, frequently attended with inflammation, who had the scrofula: when the scrofula was cured, the ophthalmia disappeared at the same time. Many who were totally blind, have now as fine eyes and strong sight as any in the kingdom. The species called *glutonosa*, is generally of a scrofulous character.

The chronic species is usually produced from a scorbutic or erysipelatic habit of body, and readily gives way when the habitual disorders are cured.

Gastrici, in its effects, resembling *aphtha*, a similar plan of treatment is required, and is also well adapted for all the diseases of this class. The baths, medicines, and diet, strictly adhered to, will strengthen the vital powers, and in time subdue the disorders.

GENUS 62nd, *Rheumatism*—Pain of the Muscles when moved.

This disorder has a close resemblance to gout, and is divided by medical men into acute rheumatism, attended with fever, and chronic rheumatism, without fever; the causes they have ascribed it to is cold and wet, which is not the case,—what a bug-a-bear wet and cold are. If medical men had studied the laws of nature, and particularly chemical affinities, they would never have ascribed to cold as the cause, but the effect: they might have observed it was only oxygen acting on a highly oxidised body, setting it in a flame and catching a high degree of heat, so high that it but too frequently consumes, as in consumption, which I call an acid rheumatism, bringing the most painful muscular affection, particularly in scrofulous cases. There is a second species caused from the excessive use of salt: when cold air comes in contact with such a body it brings on the most excruciating pains, particularly in buttercup constitutions, which causes it to be complicated with erysipelas, in such cases the pain is dreadful. There is a third species, produced from the use of that destructive drug, mercury, which has been termed by some medical men mercurial rheumatism, and is the worst and most difficult to cure of any form of that painful disorder, as it but too frequently affects the bones. There is a fourth species of rheumatism, produced from the use of chalybeate water, or iron in any form, which I call iron rheumatism, and when tonics are administered which are strongly impregnated with iron, and when given to children affected with scrofula, brings on the most powerful muscular contraction, preventing the spine from elongating, and causing it to bend in, out, or sideways, and frequently bringing on inflammation and ulceration of the vertebræ, and nearly every joint of the body, making a great number of cripples of His Majesty's subjects. Had medical men studied the effects of acid, they might have observed its astringent effects. Acid is used by the American Indians for tanning leather, it destroys the contractile power of the muscles better than any other substance; it is not then to be wondered at that the effect of acid fruit pies, vinegar, and mineral acids, the latter frequently given as medicine, should destroy the muscular power altogether; and also how salt contracts and hardens the muscular fibre of butcher-meat, they might have noticed that the oxide of iron produces tetanus and lock-jaw, and tonic medicines rigidity of muscles; and they have frequent opportunities of witnessing the active effects of mercury, when stimulated

by cold moist air, in producing rheumatism and affections of the bones. Many other substances I might notice that will assist in producing rheumatism, but as the four above-mentioned are the most common and dangerous to mankind I shall not notice any of the others.

Medical Treatment.

There never was a discovery so expeditious and safe in the cure of rheumatism as my medicated vapour bath, combined with my peculiar medical mode of treatment, as the number of testimonials from the surgeons and gentlemen who have established my baths in the different parts of England, Ireland, Scotland, and America, will fully prove. The alterative treatment must be strictly followed, hot cabbage leaves frequently applied to the parts affected, and the emollient plaster, with appropriate diet, and abstinence from the use of salt, acids, wine, and all substances that would irritate and inflame. I have had many patients whose muscles were hardened like gristle, and quite immoveable, who, by the long continued use of the bath and medical treatment, with appropriate diet, are restored to perfect health, and have recovered the long lost use of their muscles. I believe at the different establishments we have seldom failed in curing rheumatism, in all its various forms.

GENUS 64th, *Pruritus*—Excessive Itching of the Skin, without Eruption of any kind.

This is a very frequent and tormenting disorder, caused by the acrid oils of the ranunculus, and other acrid plants, burning and affecting the nerves locally or generally. When such oils are deposited in the follicles, under the skin, and the patient becomes warm in bed, the effects are most tormenting; to use their own expression,—it is like being in a fiery furnace.

Medical Treatment.

It must be quite obvious that the bath is the best remedy that can be employed to disengage the acrid oils from the system. Medicate with sudorifics, the alterative, demulcent, and lastly, the gentle tonic treatment will generally restore them to health.

CLASS 5th, *Mentales*—Disturbance in the Mental Functions.

ORDER 1st, *Ideales*—Of the Judgment principally.

GENUS 56th, *Delirium* — Symptomatic or Febrile Insanity.
——— 66th, *Paraphrosyne*—Without Fever.
——— 67th, *Amentia* –Idiotic Insanity.
——— 68th, *Mania*—Madness.
——— 69th, *Dæmonia*—Idea of being possessed by Dæmons.
——— 70th, *Vesania*—Tranquil—Partial Insanity.
——— 71st, *Melancholia*—Sorrowful—Partial Insanity

ORDER 2nd, *Imaginarii*—Of the Imagination chiefly.

GENUS 72nd, *Syrigmos*—Imaginary Sound.
——— 73rd, *Phantasma*—Ocular Spectra.
——— 74th, *Vertigo*—Giddiness.
——— 75th, *Panaphobia*—Fear of being alone.
——— 76th, *Hypochondriasis*—Apprehension of dying without adequate causes.
——— 77th, *Somnambulismus*—Sleep-walking.

ORDER 3rd, *Pathetici*—Irregular Desires.

GENUS 78th, *Citta*—Longing for things not esculent.
——— 79th, *Bulimia*—Voracious Appetite.
——— 80th, *Polydipsia*—Unquenchable Thirst.
——— 81st, *Satyriasis*—Uncontrolable Lust.
——— 82nd, *Erotomaina*—Sentimental Love.
——— 83rd, *Nostalgia*—Swiss Malady.
——— 84th, *Tarantismus*—Madness occasioned by the Bite of an Insect.
——— 85th, *Rabies*—Canine Madness.
——— 86th, *Hydrophobia*—Horror of Drinking.
——— 87th, *Cacositia*—Aversion from Food.
——— 88th, *Antipathia*—Unconquerable Aversion from particular Objects.
——— 89th, *Anxietas*—Wearisomeness of Life.

The fifth class of diseases is, in a great measure, caused by the severe effects of the former classes on both mind and body; nothing can be so awful and humiliating as derangement of the mental functions, passions, and propensities; and there is a fearful increase of the various diseases in the above class. I have had patients affected with the above diseases, in their various forms. I will make a few remarks on mania, or madness, which is caused for the most part by

the use of poisonous food, the stimulating effects of wines, fermented and spirituous liquors; and by administering mercury, and other mineral and vegetable poisons.

Medical Treatment.

Nothing will cure and relieve mania, dæmonia, hypochondriasis and melancholy, equal to the bath; give the alterative medicine first, then follow up the demulcent, nervine, and mild tonic treatment. By pursuing the above plan, with a proper attention to air, exercise, amusements and diet, I have succeeded in relieving and curing many of the cases that have been placed under my care.

Hydrophobia.—I have had but one case under my treatment, which is perfectly cured. The scutellaria latereflora, has been used by the Indians for the cure of this dreadful disorder; and has lately been discovered by Dr. Driver, and published by Dr. Spalding, of New York; who has asserted, that upwards of a thousand cases have been cured by it since it came to his knowledge: and from the numerous cures published in the *Commercial Advertizer*, and other newspapers, authenticated by the most respectable medical practitioners of that country, leaves no doubt as to the powerful specific action of the scutellaria in curing that most dreadful disorder. For the better information of those who may be called upon to treat the disorder, the use of tonics and acids are strictly prohibited by the American Indians.

Medical Treatment.

The patients to take a dose of the powder, if they have the power of swallowing; if not, medicate the bath with the sudorific medication, when the spasms will cease. A short time after they have been in the bath, they will be able to swallow the powder, and even take a draught of strong coffee. Forty grains of the powder to be given three times a day, until the symptoms subside, which will be in a few days, if the scutellaria be good. I have imported from America some of the herb in excellent condition, and I hope the medical men will give it a fair trial, as I am willing to give every assistance in my power. In the various communications on hydrophobia in the *Times* newspaper, it was proved to be produced from the dogs eating the livers of rotten sheep and cattle. The greatest relief will be experienced in all the diseases of the above class, from the use of the bath; as it will be obvious, that when the vital functions are once deranged, an accumula-

tion of morbid matter is sure to follow,—in which the bath, alterative medicine, and appropriate diet, are both expeditious and certain in their effects.

CLASS 6th, *Quietales*—Diminished power of Motion and Sensation.

ORDER 1st, *Defective*—Defects in the vital Functions chiefly.

GENUS 90th, *Lassitudo*—Fatigue.
——— 91st, *Languor*—Chronic Debility (not to be repaired by rest.)
——— 92nd, *Asthenia*—Extreme and universal Debility
——— 93rd, *Lypothynia*—Sudden Deprivation of the Powers of Motion and Sensation, the Pulse remaining unaltered.
——— 94th, *Syncope*—Fainting.
——— 95th, *Asphyxia*—Long failure of vital and animal Power, as in drowning, &c.

ORDER 2nd, *Soporosi*—Soporose Affections.

GENUS 96th, *Somnolentia*—Somnolency.
——— 97th, *Typhomania*—Coma, of authors.
——— 98th, *Lethargus*—Febrile Somnolency.
——— 99th, *Cataphora*—Constant Sleep, which may be interrupted by speaking to the patient.
——— 100th, *Carus*—Sopor and Insensibility, with quiet Respiration.
——— 101st, *Apoplexia*—Sopor and Insensibility, with stertorous Breathing.
——— 102nd, *Paraplegia*—Palsy of all the Limbs.
——— 103rd, *Hemiplegia*—Palsy of one Side.
——— 104th, *Paralysis*—Palsy of a particular Part.
———105th, *Stupor*—Transitory Numbness.

ORDER 3rd, *Privitivi*—Defects of Sensation chiefly.

GENUS 106th, *Morosis*—Defect of Imagination.
——— 107th, *Oblivio*—Defect of Memory.
——— 108th, *Amblyopia*—Obscure Vision, without apparent defect in the Organ of Sight.
——— 109th, *Cataracta*—Cataract.
——— 110th, *Amaurosis*—Gutta Serena, of authors.
——— 111th, *Scotomia*—Transitory Blindness.
——— 112th, *Cophosis*—Deafness.
——— 113th, *Anosmia*—Defect of Smelling.
——— 114th, *Ageustia*—Defect of Taste.
——— 115th, *Aphonia*—Defect of Voice.

Genus 116th, *Anorexia*—Defect of Appetite.
——— 117th, *Adipsia*—Defect of Thirst.
——— 118th, *Anœsthesia*—Defect of Feeling.
——— 119th, *Atecnia*—Impotency.
——— 120th, *Atonia*—Defect of Muscular Power.

In enumerating the diseases in the sixth class it will only be necessary to observe, the extreme debility occasioned by the various diseases in the former classes, and their causes and effects in producing diminished power of motion and sensation. What a terrible catalogue of evils follow in the train of inflammation and fever. We see the vital powers constantly struggling against the innumerable host of enemies that are attacking the inmost citadel of the body, and also the faculties of the soul, yet how the unfortunates cling to life, notwithstanding it is so embittered by the calamities that assail them. Nearly all the diseases of this class have become constitutional. Nothing is so much wanted as activity in the natural secretions, as they are all rendered, by the diseases, naturally inactive. I will mention the effects of the bath in apoplexy: After my lingering fit of illness in 1803, I had a great want of circulation in the lower extremities, and a fullness of blood in the head; I was bled for ten successive years, as the doctors said, to prevent apoplexy, which affected me with loss of memory, continual weariness, and numbness in my arms and lower extremities; since I invented the vapour bath it has caused a complete renovation of both mind and body. I believe that there is not one man in London, of my age, who has gone through more fatigue of body and mind, for the past ten years, than I have, and yet, since using the bath, I have had no occasion for blood-letting, from which we infer the bath must be of the greatest importance to arouse into action the energies of both body and mind, in most of the diseases in the above class.

Class 7th, *Matarii*—Diseases attended with Involuntary Motion.

Order 1st, *Spastici*—Spasmodic.

Genus 121st, *Spasmus*—Cramp.
——— 122nd, *Priapismus*—Priapism.
——— 123rd, *Borborygmi*—Rumbling of the Bowels.
——— 124th, *Trismos*—Locked Jaw.
——— 125th, *Sardiasis*—Involuntary Laughter.
——— 126th, *Hysteria*—Hysteric Affections.

GENUS 127th, *Tetanos*—Rigidity of the Body, with Sensibility.
——— 128th, *Catochus*—Rigidity of the Body, with Insensibility.
——— 129th, *Catalepsis*—Catalepsy.
——— 130th, *Agrypina*—Sleeplessness.

ORDER 2nd, *Agitatorii*—Convulsive.

GEUNS 131st, *Tremor*—Trembling, (without the Sensation of Cold.)
——— 132nd, *Palpitatio*—Palpitation of the Heart.
——— 133rd, *Orgasmus*—Twitching of the Arteries.
——— 134th, *Subsultus*—Twitching of the Tendons.
——— 135th, *Carpologia* — Tremulous Involuntary Contractions of the Fingers.
——— 136th, *Stridor*—Grating of the Teeth.
——— 137th, *Hippos*—Morbid Nictitation.
——— 138th, *Psellismus*—Stammering.
——— 139th, *Chorea*—St. Vitus's Dance.
——— 140th, *Beriberi*—Tremor of the Limbs, Contraction of the Knees, Stupor and Hoarseness.
——— 141st, *Rigor*—Tremor or Shaking, with Sense of Cold.
——— 142nd, *Convulsio*—Violent Periodic Agitation of the Limbs, with Sensibility.
——— 143rd, *Epilepsia*—Periodic Chronic Agitation of the Body, with Insensibility.
——— 144th, *Hieranosos*—Continued Agitation of the Body, in a Convulsive manner, with sensibility.
——— 145th, *Raphania*—Spastic Contraction of the Joints, with Convulsions, and very violent Periodic Pain.

The above seventh class, in most instances, carries the stream of the morbid affection, produced for the most part by the former classes, and by the use of the before-mentioned bad food and drink, the want of proper air, exercise, &c. It is only necessary to read over the long catalogue of diseases to be convinced that the most of them are bottomed on the effects of inflammation; it is true that appropriate diet, air, and exercise will in a great measure restore the body to a healthy state, but when that is neglected, and the bad passions and propensities indulged, what can we expect but that the secondary diseases will be called into action. In the most severe spasmodic disorders common to

this class of diseases, the bath and anti-spasmodic treatment is the most effective. For locked jaw, hysterical affections, and rigidity of the body the bath is the most effectual remedy; also in palpitation, St. Vitus's dance, tremors, &c. I have not had a case that has not been cured or benefitted.

Medical Treatment.

The bath and alterative treatment is here of the greatest importance to soften the muscles, remove dormant humours, equalize the circulation, and restore it to its equilibrium, and unloading the over-strained blood-vessels in the various spasmodic diseases.

Regimen.

When you have got the body divested of its morbid contents, here mild demulcent and gentle strengthening diet is of great importance, taking care that the volume of blood is not too rapidly increased. Mild tonics are useful in hysterical affections, but in spasms and palpitations, tonics and astringents are to be avoided. The patient's strength to be regained by air and exercise.

CLASS 8th, *Suppressorii*—Diseases arising from, or attended with Oppression of the Organs or Impeded Secretions.

ORDER 1st, *Suffocatorii*—With a sense of Suffocation.

GENUS 146th, *Raucedo*—Hoarseness.
——— 147th, *Vociferatio*—Screaming.
——— 148th, *Risus*—Laughter.
——— 149th, *Fletus*—Weeping.
——— 150th, *Suspirium*—Sighing.
——— 151st, *Oscitatio*—Yawning.
——— 152nd, *Pandiculatio*—Stretching.
——— 153rd, *Singultus*—Hiccough.
——— 154th, *Sternutatio*—Sneezing.
——— 155th, *Tussis*—Coughing.
——— 156th, *Stertor*—Snoring.
——— 157th, *Anhelatio*—Panting.
——— 158th, *Suffocatio*—Difficult Respiration, from narrowness of the Fauces.
——— 159th, *Empyema*—Difficult Respiration, from an Abscess in the Thorax.
——— 160th, *Dyspnœa*—Difficult Respiration, not arising from narrowness of the Fauces.
——— 161st, *Asthma*—Difficult Respiration, of a Chronic nature.

GENUS 162nd, *Orthopnœa*—Acute and Sudden Difficulty of Respiration.
——— 163rd, *Ephialtes*—Nightmare.

ORDER 2nd, *Constrictorii*—With Constriction.

GENUS 164th, *Aglutitio*—Impeded Deglutition.
——— 165th, *Flatulentia*—Flatulence.
——— 166th, *Obstipatio*—Costiveness.
——— 167th, *Ischuria*—Impeded Micturition.
——— 168th, *Dysmenorrhea*—Difficult Menstruation.
——— 169th, *Dyslochia*—Suppression of the Lochia.
——— 170th, *Aglactatio*—Deficiency of Milk.
——— 171st, *Sterilitas*—Barrenness.

In the eighth class of diseases there is a still greater degree of morbid affections, causing impeded secretions, a difficulty of breathing, and from the impure state of the blood, causing nightmare, flatulence, costiveness, difficult menstruation, suppression, deficiency of milk, barrenness, &c. Barrenness may be here considered as a blessing, since children born of such diseased parents are more fit to be members of an hospital than of civil society. It may be seen at once, by a cursory observer, that morbid torpidity in the solids, and corrupt blood, is the cause. The mucous membrane has been so worn out by the former inflammatory disorders, and the mischief is still allowed to roll on by inattention to diet, air, and exercise.

Medical Treatment.

In asthmatic disorders the small ramifications of the air cells, blood-vessels, and secreting vessels of the lungs are so clogged up with morbid secretions that medicines given by the stomach, particularly when the mucous membrane is so diseased, is but of little avail; here the vapour bath, medicated with the sudorific medication and anti-spasmodic medicines, are of the greatest consequence. The bath relaxes the vessels of the lungs, softens the morbid secretions, and enables the lungs to throw it off; when that is accomplished use the demulcents and pectoral medicines; such cases will not bear purgative medicines, hence the alterative to allay the inflammation of the mucous membrane, and the anti-spasmodic and demulcent to protect the membrane from the action of air, will give the most decided relief. It is difficult to perform cures in such cases, for like Hudibrass's gun, they want a new lock, stock, and barrel, which cannot be so well effected in any other way but by the bath, medi-

cal treatment, and appropriate diet. I have had a number of such cases bearing diseased children just like themselves; but when subjected to the bath and medical treatment they had fine healthy children, so much so, that they frequently boasted of the superiority of these children when compared with the other members of the family. And in nurses who have a deficiency of milk, I can effectually supply that defect by means of the plants and herbs that I have in my possession, which are preserved in so superior a manner, that their effects are certain and salutary; as well as increasing the quantity of milk, the quality will likewise be improved. Such remedies are also calculated to remove any heriditary taint that the child may have in its constitution, especially when assisted by the nurse living partly on a vegetable diet. By the nurses living on animal food it often makes the children gross, unhealthy, and liable to inflammatory diseases. The woman is worse than a brute who will knowingly disease her child by the gratification of her appetite, which ought to be provided against by law, as it is in scripture. The Jews ascribed all the diseases of their children to the impure milk of the mother, and the corrupt milk of the mother is caused by diseased poisonous food, drink, and drugs. What an awful responsibility rests with our landlords, farmers, brewers, and doctors, poisoning the fountain of life at its source, by their ignorance and inattention to the laws of nature. I am bold to assert that Britain, and the cities and large towns of Ireland will turn out a greater number of diseased children than are to be found in any kingdom or state in the world, when by a wise, prudent, and honorable policy, we might have the most healthy children of any portion of the globe; and from the great and superior resources which we have in our power might almost entirely banish disease from the kingdom.

CLASS 9th, *Evacuatorii*—Diseases attended with Increased Excretions and Discharges.

ORDER 1st, *Capitis*—From the Head.

GENUS 172nd, *Ortorrhea*—Purulent Discharge from the Ear.

——— 173rd, *Epiphoro*—Continued Discharge from the Ear.

——— 174th, *Hæmorrhagia*—Discharge of Blood from the Nose.

——— 175th, *Coryza*—Mucous Discharge from the Nose.

Genus 176th, *Stomacace*—Bleeding of the Gums.
——— 177th, *Ptyalismus*—Salivation.

Order 2nd, *Thoracis*—From the Breast.

Genus 178th, *Screatus*—Discharge of Mucous from the Trachea.
——— 179th, *Expectoratio*—Discharge of Mucous from the Lungs.
——— 180th, *Hæmoptysis*—Hæmorrhage from the Lungs.
——— 181st, *Vomica*—Sudden Purulent Discharge from the Lungs.

Order 3rd, *Abdominis*—From the Belly.

Genus 182nd, *Ructus*—Eructation.
——— 183rd, *Nausea*—Sensation of Sickness.
——— 184th, *Vomitus*—Vomiting.
——— 185th, *Hæmatemesis*—Vomiting of Blood.
——— 186th, *Iliaca*—Iliac Passion.
——— 187th, *Cholera*—Vomiting, with Purging and Colic.
——— 188th, *Diarrhea*—Dejection of Liquid Fæces.
——— 189th, *Lienteria*—Dejection of Undigested Aliment.
——— 190th, *Cœliaca*—Dejection of Chyle.
——— 191st, *Cholerica*—Reddish Flux, without Colic.
——— 192nd, *Dysenteria*—Bloody Flux, with Colic and Tenesmus.
——— 193rd, *Hæmorrhais*—Bleeding Piles.
——— 194th, *Tenesmus*—Frequent and Needed Dejection of Mucus.
——— 195th, *Crepitus*—Dejection of Flatus.

Order 4th, *Genitalium*—From the Pudenda.

Genus 196th, *Enuresis*—Involuntary Micturition.
——— 197th, *Stranguria*—Strangury.
——— 198th, *Diabetes*—Undue Discharge of Urine.
——— 199th, *Hæmaturia*—Bloody Urine.
——— 200th, *Glus*—Mucous Urine.
——— 201st, *Gonorrhea*—Mucous Flux from the Urethra.
——— 202nd, *Leucorrhea*—Whites.
——— 203rd, *Menorrhagia*—Inordinate Flow of the Catamenia.
——— 204th, *Parturitia*—Laborious Parturition.
——— 205th, *Abortus*—Abortion.

Genus 206th, *Mola*—False Conception.

Order 5th, *Corporis Externi*—From External Parts.

Genus 207th, *Galactitia*—Overflowing of Milk.
——— 208th, *Sudor*—Profuse Sweating.

In class ninth, here we have only to observe the morbid accumulated affections, bursting out in the various organs of the body, like tumours, or the matter of a fester, which they really are; and if not properly treated will run off the solids and fluids of the body, until the whole are consumed, when death will be the inevitable consequence.

The mucous and purulent discharges of the body, are so deadly in their effects if not properly treated, and so extensively disseminated among all ranks, that they are involving the country in one physical calamity.

The discharges of mucous and purulent matter from the lungs, and other parts of the body, are obvious to every one; but the gonorrhœa and purulent discharges of men, and leucorrhœa or whites in women, are eating, like a gangrene, into the vitals of the country, and entailing the most serious evils on posterity. They are affecting all ranks, more particularly the women in the middle ranks of life; and particularly affecting those who are fond of tea, bread, butter, and the fat of butcher-meat. The kidneys become affected and inflamed; the discharge commences, and is frequently so acrid as to affect the contiguous parts; the evil is so extensive, and the discharge so copious, it is wasting away the vital energy of the state. Women, if they have any children, are sure to be affected with scrofula, the very name of which strikes every friend of his country with terror: the very name of the sixth genera of the class shews the dreadful effects of the above food; viz., inordinate flow of the catamenia, laborious parturition, abortion, false conception, overflowing of milk, profuse sweating. Poor creatures! what a misfortune it was for them to have been born in England to undergo such sufferings as the above catalogue of diseases entails, not only on them, but on their unfortunate progeny: what a reflection to every contemplating mind!

The monsters that are now devastating a large portion of the Eastern world, are cholera morbus, and cholera spasmodica; which are permitted to exist through the sheer ignorance of man of the laws of nature. The reports from Russia are truly sickening to read. The ignorance displayed by medical men in the reports I have seen on that subject are, with

one exception, imputing cruelty to the Almighty in poisoning the air; and that death was just dancing a horn-pipe, killing one individual, or cutting and missing others: this is the amount of their knowledge on the cause of that distressing malady. In observing the severe pain and spasm in the stomach and bowels, affecting the nerves and muscles of the whole body, it might at once point out to any common observer that the sufferer had been eating acrid poison of the most deadly description, which is produced from food and drink; and pray what had that to do with a person looking on, who had not been using bad food or drink, unless fear might affect them; but if they had been taught common sense, fear would not affect them. Were it as they would have it, that the air was poisoned, as is the case with fire-damps, or in wells, it would poison every one, none would escape. The air is the same in New York and Philadelphia at this time as it was from 1795 to 1800, and the people go on breathing as usual; it is true that since they left off eating diseased butcher-meat, and adulterated and spoiled provisions, and drinking bad water, they have become the most healthy people of any city in the world; thanks to the board of health, who are not composed of doctors, but independant gentlemen of good common sense, including the Mayor and Corporation of the cities. The Americans thought that when interest stands in the way, it is apt to warp the judgment of man, therefore they excluded them from any interference with the board of health. In 1816, I was lecturing at Savannah, in the state of Georgia, and in the winter they began to thrash out the rice on the plantations: much of the rice was diseased by insects depositing their eggs in the grain, which changed it to a black or dark brown colour, which might have pointed out to the most superficial observer, that the grain was poisonous and unfit for food. The negroes were ordered to pick out the black grain, as it spoiled its sale: but the negroes not being the best judges of the qualities of rice, began to eat what they picked out; all who eat of it were immediately seized with the cholera of India; many of them after a hearty breakfast, in good health, were dead by noon. The cholera-phobia at once seized the public, more particularly the doctors: they had it dancing in the air like ignis-fatuus, and woe be to that man who came in contact with the deadly blast; so that the people were really afraid to breathe, although the weather was clear and cold; they were running from place to place with handkerchiefs at their mouths, and frequently the water streaming out of their eyes, for fear the cholera

should jump down their throats; even the doctors that went to visit them stood at a distance, and looked askance at the unfortunate children of Ham, but would not come in contact with them. A planter came to my room and told me that the doctors had refused to come and see his negros, and he was afraid he should lose the whole of them; he wished me to go with him and see if I could administer any thing to their relief, which I at once consented to do. The first thing I asked was what they had been eating, when he shewed me a parcel of the infected rice; the moment I examined the colour I pronounced it to be a perfect poison. The planter doubted the fact, but as they were cooking some of it for their breakfast, to convince him that it was poisonous, I gave some of it to the hounds,—they were shy of eating it: I had some milk mixed with it,—they eat the whole: I tied their mouths to keep them from retching; and they all took the cholera that day. It was painful to see the severe agony the poor hounds suffered: their bowels became powerfully relaxed. I took off the muzzles from two of them, to watch if they would eat any thing to cure themselves; they retched, but the poison had such firm hold of them that they would not move from the place; their faculties seemed to be completely destroyed; they howled most piteously; they grew weaker and weaker, till death closed the scene. Had the diseased rice been sent to London, and eaten, it would have produced the cholera; and I have no doubt a cordon of troops would have been drawn round the city to prevent the inhabitants from making their escape; but how the troops could keep the air confined to London, I am at a loss to know, as they have not given us any information from Russia on the subject. I had fifteen cases of English cholera the week before the cool weather came on, which gave the disorder a check. The retching and spasms were nearly as bad as in Russia; and I could trace the cause of every one of them to diseased veal, lamb, and mutton; the retching was so violent in some cases that brandy, laudanum, and other medicines were immediately rejected. The meat passed out of the stomach into the bowels, where it soon became putrid, a lavement could not relieve it, and they could not retch it up. As soon as they went into the bath the spasms ceased, and then they could drink from one to two glasses of alterative and purgative medicine. Violent relaxations of the bowels ensued: they had from ten to twenty motions a day; at first the putrid meat mingled with the coats of the bowels, and in some instances was tinged with mucous matter and blood.

Medical Treatment.

The alterative and demulcent treatment: if the bowels continue relaxed give two doses of the anti-hæmorrhagic, and when the bowels are rendered tranquil give the alterative and demulcent until you may judge the disorder subdued, when the mild tonic treatment may be pursued. From the excessive spasms and copious evacuations the patients are very weak, the mild tonic treatment soon recruits their strength. By a reference to the ergot, and the gentleman's hounds taking the cholera from eating fluky mutton, in page 95, and a lady, a patient of mine, having received a letter from her bailiff, stating that some rotton sheep were thrown into a pond, and some ducks eating a quantity of the fat, died in consequence, we have no occasion to dread cargos of cholera, unless in the way of food, and even if so we could pay them back in their own sort of barter. I will venture to assert, if we send a cargo of fluky mutton, buttercup butter, veal and lamb, (unless the Russians are accustomed to eat such food), would poison every one of their army.

Much more might have been said upon what has been observed by Linnæus, as regards the non-contagious nature of cholera, as also the other diseases that are really infectious, such as the itch, plague, and other disorders, which all mankind are liable to, and which point out that all other diseases are either constitutional or local, caused by what we eat or drink, or by excessive alternations of air, and accident. Those who are daily alarming people without a good cause, are doing a real injury to the well-being of the country.

CLASS 10th, *Deformes*—Deformities.

ORDER 1st, *Emaciantes*—Of the Emaciating kind.

GENUS 209th, *Phthisis*—Consumption, (Wasting with Hectic Fever, Cough, Dyspnæa, and copious purulent Expectoration.)

——— 210th, *Tabes*—Wasting, (with Hectic Fever, but without Expectoration.)

——— 211th, *Atrophia*—Atrophy, (Wasting with Atony, but without Hectic Fever or Expectoration.)

——— 212th, *Marasmus*—Wasting, (without Atony, Expectoration, or Hectic Fever.)

——— 213th, *Rachitis*—Rickets.

ORDER 2nd, *Tumidosi*—Of the Enlarging kind.

GENUS 214th, *Polysarcia*—Corpulency.
——— 215th, *Leucophlegmatia*—Emphysematous Intumescence.
——— 216th, *Anasarca*—Watery Intumescence.
——— 217th, *Hydrocephalus*—Watery Enlargement of the Head.
——— 218th, *Ascites*—Watery Enlargement of the Abdomen.
——— 219th, *Hyposarca*—Knotty Tumour of the Abdomen.
——— 220th, *Tympanites*—Flatulent Enlargement of the Abdomen.
——— 221st, *Graviditas*—Extraordinary Distention of the Abdomen during Pregnancy.

ORDER 3rd, *Decolores*—Discolorations of the Skin.

GENUS 222nd, *Cachexia*—Œdematous Paleness.
——— 223rd, *Chlorosis*—Green Sickness.
——— 224th, *Scorbutus* –Scurvy.
——— 225th, *Icterus*—Jaundice.
——— 226th, *Plethora*— Redness from Fullness of Blood, with Dyspnæa.

Class the tenth effects a complete change of the constitution, both solids and fluids; sometimes the ravages are so great that those who have suffered from it have not been known by their intimate friends. The above diseases are partly caused by the effect produced by the former classes, and by inattention to diet, air, exercise, and poisonous drugs. Consumption is a disease that destroys more of the inhabitants of this kingdom than all other diseases put together: it is caused by acidity from unripe fruit, vinegar, and whatever causes acid ferments in the stomach; their whole body is a compound of acid, and when it comes in contact with cold or highly oxidised air, as before-mentioned, it sets the combustible substances, of which their bodies are composed, on fire, and wastes it away like the oil in a lamp, until the whole body is consumed. Medical men who have written on consumption, have asserted that the disorder cannot be cured; I can assert the contrary, as it can be cured, unless the lungs are destroyed, for although inflammation has taken place it may generally be cured.

Medical Treatment.

A voyage to Carolina, and live in the pitch-pine forest for a season, will cure the disorder, if proper attention is paid to diet; during the process of cure, and ever after, as the same causes that excited it at first will cause its return, they are to be avoided. The bath to be medicated with sudorifics, the alterative and anti-acid medicine to be given at first, until the tumours are discharged, then give the anti-hæmorrhage in small doses, so as not to constipate the bowels. To prevent the secretion of matter, the bath, in such cases, is of the utmost consequence, as it loads the steam with demulcents, and when inhaled by the lungs, it defends them from the immediate action of air; the resinous properties are also held in suspension by the steam, and inhaled with great advantage to neutralize the acid; the nervine medication to be occasionally used; and lastly, the tonic. When the weather is cool the temperature of their rooms to be above 60, to 65°; use the evaporator to consume the oxygen in the room, to be charged with tar, balsam, the leaves of fir, and lavender flowers, and all of them mixed with water, to moisten the dry air, so necessary to relieve the disorder; diet them on anti-acid food. I have in the spring and summer cured four out of five, when they were not more than half gone. The disorder might be banished from the kingdom by using such food and drink as have a tendency to counteract the disorder. In tabes, atrophia, and marasmus, the bath and alterative medicine will, in every instance, relieve or cure. The bath, alterative and anti-acid treatment, with appropriate diet, air, and exercise, has done more to relieve chlorosis than all other remedies hitherto employed; the tonic will be of service in accomplishing the cure. In jaundice, the bath medicated with sudorific, the alterative and purgative given fully, the anti-acid before and after dinner, the hepatic pills, and mild tonic treatment, will affect a cure in a short time. In all the diseases of this class the bath will generally facilitate a cure.

CLASS 11th, *Vitia*—Cutaneous, External, or Palpable Diseases.

ORDER 1st, *Humoralia*—Consisting in Vitation or Extravasation of the Fluids.

GENUS 227th, *Aridura*—Wasting or withering of a Part.

Genus 228th, *Digitium*—Dry Whitlow.
——— 229th, *Emphysema*—Windy Tumour.
——— 230th, *Ædema*—Watery Tumour.
——— 231st, *Sugillatio*—Effusion of Blood into the Cellular Membrane.
——— 232nd, *Inflammatio*—Inflammation.
——— 233rd, *Abscessus*—Abscess.
——— 234th, *Gangræna*—Gangrene.
——— 235th, *Sphacelus*—Mortification.

Order 2nd, *Dialytica*—Solutions of Continuity.

Genus 236th, *Fractura*—Fracture.
——— 237th, *Luxatura*—Dislocation.
——— 238th, *Ruptura*—Rupture of a Tendon.
——— 239th, *Contusura*—Contusion.
——— 240th, *Profusio*—Flux of blood, from Solution of substance.
——— 241st, *Vulmes*—Wound.
——— 242nd, *Amputatura*—Wound, from the entire separation of a part of the Body.
——— 243rd, *Laceratura*—Laceration.
——— 244th, *Punctura*—Puncture of a Tendon.
——— 245th, *Morsura*—A Venomous Bite.
——— 246th, *Combustura*—A Burn.
——— 247th, *Excoriatura*—Excoriation (of the Skin).
——— 248th, *Intertrigo*—Erosion (of the Cuticle).
——— 249th, *Rhagas*—Dry Crack of the Skin.

Order 3rd, *Exulcerationes*—Purulent or Ichorous Solutions of Continuity.

Genus 250th, *Ulcus* — A Suppurating Wound of a Fleshy part.
——— 251st, *Cocaethes*—A Superficial Spreading Ulcer.
——— 252nd, *Noma*—A Deep Escharotic Ulcer, leaving a Cicatrix.
——— 253rd, *Carcinoma*—Cancer.
——— 254th, *Ozena*—An Ulcer of the Antrum Highmori.
——— 255th, *Fistula*—A Callaso-Vaginating Ulcer.
——— 256th, *Caries*—An Ulcer of the Periosteum.
——— 257th, *Anthrocace*—An Ulcer of the Cavity of a Bone.
——— 258th, *Cocyta*—A Poisonous Animalcule lodged in a part.
——— 259th, *Paronychia*—Whitlow.
——— 260th, *Pernio*—Chilblain.

GENUS 261st, *Pressura*—Inflammation of the Finger-end from Cold.
——— 262nd, *Arctura*—Growing in of the Nail.

ORDER 4th, *Scabies*—Cutaneous Diseases.

GENUS 263rd, *Lepra*—Leprosy,
——— 264th, *Tinea*—Scald Head.
——— 265th, *Achor*—Crustea Lactea, of authors.
——— 266th, *Psora*—Itch.
——— 267th, *Lippitudo*—Blear Eyes.
——— 268th, *Serpigo*—Tetters, Ringworm.
——— 269th, *Herpes*—Shurgles.
——— 270th, *Varus*—Pimples.
——— 271st, *Bacchea*—Ruby Face, Gutta Rosea, of authors.
——— 272nd, *Bubo*—Inflammation of a Conglobate Gland.
——— 273rd, *Anthrax*—Carbuncles.
——— 274th, *Phlyctœna*—A Watery Vesicle.
——— 275th, *Pustula*—A Purulent Vesicle.
——— 276th, *Papula*—A Hard Inflamed Tubercle.
——— 277th, *Ordichim*—A Stye.
——— 278th, *Verruca*—A Wart.
——— 279th, *Clavus*—A Corn.
——— 280th, *Myrmecium*—A Moist Soft Wart.
——— 281st, *Eschara*—An Eschar, or Scab.

In the eleventh and last class many of the diseases are bottomed by the effects produced on the constitution by the former classes of diseases, others locally, and many of them are accidental: for instance in the first order,—humoralia and inflammation may be produced by the ergot or spurred rye, on the best of constitutions, causing abscess, gangrene, and mortification, in different constitutions. The alexipharmic, and the bath, employed in the inflammatory state, will cure it at once; when it approaches to abscess yeast and flour poultice will be of great service, as also the bath, though contrary to the general opinion of medical men, that heat is hurtful; when the alterative and purgative is freely employed, a few mild tonic baths are of great importance. If the mortification has not extended further, when the bath has been judiciously employed, the application of raw cotton is of importance; the yeast and emolients have the most beneficial effects; the tonic treatment to be pursued alternately with the alexipharmic. In the second order, dialytica, vegetable diet, the alterative medicine, and bath

are of great importance in case of a burn; raw cotton applied will do more to relieve it than any application known. Order third, *exulcerationes*: All this order is caused by the buttercup, and other acrid plants, which are eaten by sheep and cattle, until the milk, butter, and cheese are converted into a corrosive poison, producing scrofula and glandular tumours in the youth, and consumption at all ages. At the same time there is an insect that is found in the intestines and livers of sheep and cattle, called the fluke, nestling in the liver, and sucking the blood from the principal veins and arteries of the liver, passing nearly the whole of the blood through their dirty stomachs; their excrements are absorbed, and partly forms the flesh of the sheep, particularly the fat. The very idea of permitting such an abomination to exist is highly disgusting and degrading to our nature. I believe that in all cases of fœted cancer the animalcule of the fluke is the nucleus or cause why they are mostly found in the breasts of women; this nucleus once formed, the acrid oil of the buttercup is drawn to it by chemical attraction, until tumours of a large magnitude are formed, which is called ocult cancer, when it breaks it is then strictly true cancer. It is truly humiliating for the nation in general, and the faculty in particular, that such a disorder should be permitted to exist, when they have the power to prevent it. I challenge the faculty to produce me a case of cancer where the buttercup and fluke is not to be found. We have got many half-starved labourers who might destroy all the flukes and buttercups in the kingdom in a short time. It could be proved that the loss of money sustained by the death of cattle, sheep, and horses, caused by the buttercup and fluke, would be more than adequate to destroy every one of them throughout the kingdom. But what is more awful, they are permitted to bring to a premature end half the inhabitants of this kingdom, and to die with cancer and other excruciating disorders. It may be truly said, to use a figurative expression, that the triumph of Satan is complete, so far as human torment can be implicated, by his blinding their eyes to the means held out for its cure.

I shall now present to my readers a continuation of the causes of cancer, and the means to be adopted for its removal; likewise a few brief cases, and remarks of eminent medical men, confirmatory of the beneficial effects resulting from the use of the vapour bath, &c., in the cure of that disorder.

Cancer, in its incipient stage, that is to say in a state of tumour, I have not, as yet, lost a case; and I believe that

they have been equally successful at other establishments connected with me in this country, and especially in America. In some of the states in the latter country the agriculturists had sown their fields with English hay seed, which introduced a plentiful crop of buttercups and other poisonous seeds; they soon observed that the people who lived in these districts were much afflicted with cancer, and more particularly the females who were in the habit of milking the cows: their fingers were first affected, which communicated the virus to the glands in the arm-pit, and subsequently to the breast. An old superannuated doctor living on one of the estates, who attended my lectures on botany, was attacked with a severe fit of indigestion, in consequence of eating the buttercup butter of that district; I stated at the time that that plant was the chief cause of cancer, and he immediately called a meeting of the principal inhabitants, and informed them that he believed my assertions to be founded in truth.

In the year 1817, a series of experiments were made on the plants which I had pointed out as likely to cure the disease; and when I returned to America, in 1825, all the cases of cancer were presented to me cured or convalescent, not one of them having terminated fatally, and no new case has made its appearance since the fields were cleared of the noxious weeds, which is the most conclusive evidence that can be adduced. The great success which I myself have had, warrants me in asserting that the greater portion of cases may be cured in their incipient stage. Amongst the numerous and striking proofs that could be brought forward of the beneficial influence of the baths, in cases of cancer, is one that occurred in the person of a lady residing in Sloane Street, Chelsea: Mr. Brodie, two years ago, cut a tumour out of her breast of a considerable size; a recurrence of the affection having taken place at the expiration of twelve months, and her breast having become filled with tumours, that gentleman said it was necessary for her to have her breast cut off, otherwise it would become a bleeding cancer in the course of a few weeks; she was under preparation for amputation; some friends advised her to call upon me, and she was perfectly cured: not a single tumour can now be discovered in the breast.

Mr. Rankin, surgeon, Hastings, (who had seen the case), declared "that either Mr. Brodie had altogether mistaken the disease, or that Mr. Whitlaw had effected a perfect cure." Another remarkable instance was the case of Mrs. Ranking: Dr. Blundell, and another eminent medical man examined

her case, and the latter doubted whether the disease had been carcinoma, but Dr. Blundell declared that when he first saw the case it was as true a specimen of that disease as he had ever witnessed, and he could only congratulate the lady on what he then saw; that lady is now in a state of perfect health. Many other cases might be advanced to prove the efficacy of my plan of treatment, but I conceive it to be altogether unnecessary.

Medical Treatment.

Begin with the alterative and purgative medicine, and continue it daily for a month; apply, externally, to the tumour, cabbage leaves at night, and discutient plasters during the day; the bath to be taken twice a week. This treatment may be varied according to circumstance: viz. the alterative may be changed for the alterative and purgative, the tonic, or tonic and aperient. The diet is of great importance; very little animal food is allowable.

The other diseases of this order, although presenting a formidable aspect to medical men, are nevertheless efficaciously treated, in most instances, by means of the bath and appropriate medicines; the nature of the disease pointing out the remedy, and the remedy ought to be chosen with the view of acting specifically on the disease. Many of the above diseases may be traced to excess of acid, salt, or mercury. I have had many cases of leprosy, and from long experience in the treatment of that disease, I will confidently assert, that the bath, the alterative and aperient medicines, together with attention to diet, will cure at least eighty cases out of a hundred.

Scrofula.—I have nothing new to add in addition to what I have already stated as to the cause of this disease, and the certainty with which it may be cured.

For the cure of this disease, it is necessary to begin with the alterative and aperient medicines, and to continue them, in conjunction with the bath, until the cure is completed.

Order 6th, *Procidentiæ*—Tumours arising from Dislocation of Fleshy or Membranous parts.

Genus 292nd, *Hernia*—Rupture.
——— 293rd, *Prolapsus*—Hanging down of a part out of its natural place.
——— 294th, *Condyloma*—Relaxation of an Internal Membrane.
——— 295th, *Sarcoma*—Fungous flesh.
——— 296th, *Pterygium*—Web in the Eye.

Genus 297th, *Ectropium* — Reversion of the under Eye-lid.
——— 298th, *Phymosis*—Inflamed Intumescence of the Prepuce.
——— 299th, *Clitorismus* — Intumescence of the Clitoris.

Some of these diseases can only be cured by mechanical means, or a surgical operation; at the same time I would recommend a trial of the bath, &c., in order to improve the health: and it will be found, that many of those diseases which seem to depend on some local irritation, had their origin in general constitutional derangement.

Order 7th, *Deformations*—Deformities.
Genus 300th, *Contractura*—Rigidity of a Joint.
——— 301st, *Gibber*—Gibbosity of the Chest.
——— 302nd, *Lordosis*—Incurvation of the Bones.
——— 303rd, *Distortio*—Distortion of the Bones.
——— 304th, *Tortura*—Wry Mouth.
——— 305th, *Strabismus*—Squinting.
——— 306th, *Lagophthalmia*—Retraction of the Upper Eyelid.
——— 307th, *Nyctalopia*—Night sightedness.
——— 308th, *Presbytia*—Long sightedness.
——— 309th, *Myopia*—Near sightedness.
——— 310th, *Labarium*—Looseness of the Teeth.
——— 311th, *Lagostoma*—Hare-lip.
——— 312th, *Apella*—Abbreviation of the Prepuce, without Inflammation.
——— 313th, *Atreta*—Imperforation of a natural Passage.
——— 314th, *Plica*—Indissoluble Contortuplication of the Hair.
——— 315th, *Hirsuties*—Unnatural Hairyness.
——— 316th, *Alopecia*—Baldness.
——— 317th, *Trichiasis*—Distortion of the Eye-lashes.

I have merely added this, and the following order, for the purpose of completing the Linnæan Genera Morborum. As many of the diseases now under consideration arise from malformation, no regular plan of treatment can be recommended; still much may be done to remove the inconvenience of children thus situated; and by attention to the general health, it is astonishing to see what great changes nature is capable of making.

ORDER 8th, *Maculæ*—Blemishes on the Skin.

GENUS 318th, *Cicatrix*—A Scar.
——— 319th, *Nœvus*—A Mole or Mark.
——— 320th, *Morphœa*—A broad, white, depressed Spot.
——— 321st, *Vibex*—A white, or purple Stripe under the Cuticle.
——— 322nd, *Sudamen*—Red Spots, like flea bites.
——— 323rd, *Melasma*—Black Blotches.
——— 324th, *Hepatizon*—Scurf.
——— 325th, *Lentigo*—Freckles.
——— 326th, *Ephelis*—Sun-Burn.

This concludes the Genera Morborum of Linnæus, in the arrangement of which he has displayed as much genius and ingenuity as in his greatest and most important work, his "Systema Natura." I have examined many systems of nosology, but in none do I find the same perspicuity and natural method of classification:—taking nature for his guide, and cause and effect for his basis; on this foundation he erected a hypothesis at once simple, elegant, clear, and comprehensive, embracing all and every variety of disease: tracing their origin to a rational cause, and laying down a systematic principle for their cure, founded on the immutable laws of nature. Such is the beautiful and elaborate structure of that great and good man, whose daring genius searched into the very seeds of disease, and whose unwearied zeal ransacked the whole vegetable, mineral, and animal kingdoms for the means of relief. If his works are now falling into unmerited oblivion, and his splendid discoveries spoken of with contempt, even by the imbecile society that bears his name, (and which was formed for the purpose of carrying forward the great work which his individual genius had all but completed), yet, while the Almighty Architect of nature continues to uphold his works, by his unchanging decrees, and while flowers shall beautify this earth, the name of Linnæus will be revered as one of the brightest luminaries of science, and his memory cherished in grateful remembrance by every lover of nature.

ON THE

MEDICATED VAPOUR BATH.

Having already in a former work fully explained the nature of my bath, I shall limit my observations in the present treatise to the great principle of my new discovery, namely, the powers of medication in the cure of disease. The simple vapour of boiling water, is undoubtedly a valuable acquisition to the healing art, and has been time immemorial in use among Oriental nations. But this system of bathing has been used rather as a preventive than a cure for disease ; its effects are less violent than the warm bath, and is therefore always to be preferred in a medical point of view. It will undoubtedly arrest the progress of many diseases, and mitigate others; but in a great variety of complaints, such as fever, pulmonary diseases, and diseases of the arterial and nervous systems, the steam of simple water will have little or no effect. The great superiority of my bath, consists in its power of raising and holding in suspension the essential properties of plants. The medicated baths generally advertised, are nothing more than the simple steam of water, impregnated with a little volatile oil to render the smell agreeable. This I think it right to mention, in order to guard the public, and the profession, against misconception as to what a medicated bath really is. By medication I can act with more certainty on many important organs of the body, than can be done by medicines taken internally ; and I am truly astonished, that men having the least pretensions to a knowledge of physiology and pathology, should doubt the effect of medication on the system. Every medical man knows that important effects are produced by vapour from mercury, sulphur, and other minerals; and we know, that a man will become intoxicated merely from inhaling the fumes of brandy. The exhalation from the rhus toxocodendron (a tree of the most poisonous kind), has such a powerful effect on the system, that a person cannot approach within ten yards of it, without endangering his life ; and whole families have perished in consequence of making use of it as fire-wood. The practice of inhaling the fumes, effluvia, and vapour of different substances, has long been extolled in the cure of

many diseases; as the fumes of tar in diseases of the lungs, smoaking stramonium, and other narcotics, in asthmatic affections; cinnabar, &c. in ulcerated sore throats; and the vapour of hot vinegar and water, in inflammatory affections of the throat, &c. Such are a few examples of the grand principles of medication. But never to the same extent, or in so effectual a manner could it be employed, as by means of my bath. If medical men deny the utility of medication, what becomes of the doctrine of infection? or the means recommended for destroying it? And if the air of a room can be deteriorated to such an extent, as to affect a healthy person subjected to its influence for a short time, and give rise to an identical and fatal disease, why should not a medication have an equally salutary effect, in counteracting the principles of disease already established in the constitution? Do not the fumes of turpentine give rise to a peculiar odour in certain secretions of the body? and does not the smell of paint bring on colica pictonum and paralysis? These are facts with which every medical man must be conversant. It is an easy matter to explain the way in which medication acts on the system.—The patient inhaling the medicament in a gaseous state, it comes in immediate contact with the blood in its circulation through the lungs, thereby influencing the action of the heart, and in this way, the pulse may be accelerated or decreased, and the nervous system excited or depressed. When air, water, or vinegar is injected into the veins leading to the heart, its action is powerfully increased, and the more so according to the stimulus, from which we can account for salt, or pungent provisions, or stimulating liquors, exciting an undue action in the heart, independent of their first operation on the nerves of the alimentary canal. In this way, medicine taken internally exerts its influence on the system, by stimulating the nerves of the stomach, and exciting the absorbents, by which it is carried into the blood, and is again thrown off by the excretions carrying along with it impurities which produce disease, or obstruct the free actions of important organs. But substances through the medium of the lungs, exert a more powerful, speedy, and certain effect, than those which have to undergo the tedious process of digestion, as is seen in the breathing of the fumes of alcohol, or nitrous oxide, which instantly increase the force of the circulation, whilst those of hydro-carbon, or pure carbonic acid gas, diminish it: hence the value of hydro-carbon, in mania, to suspend the diseased intellectual functions for a time. All these effects are produced by

these various agents operating through the medium of the nerves. And when we consider the effects of various smells upon the nervous system, it will be easily understood why the bath should be a most powerful remedial agent in the cure of nervous diseases. The smell of the white lilly, or that from the snuff of a candle, has been known to produce immediate fainting, while lavender, rosemary, &c. are powerfully stimulant.

For the last twelve years of my life my attention has been directed to the great principle of giving medicine through the medium of the lungs; believing, that in many and various diseases, it may be applied with greater efficacy, —especially in disorders of the chest, whether membranous or glandular; and the rationale of the principle is self-evident: to a local wound, or inflammation externally, we order an external application, suited to the nature of the case: and in what way can this be done internally, except through the medium of the lungs?

In order to effect this object, I constructed a bath on an improved principle, by which the properties of plants could be held in suspension by compressed steam; and it is owing to this principle, that the wonderful healing powers of the bath are to be ascribed. I found that by compressing the steam, the gummy and resinous properties of plants were held in suspension, and passed through the small perforations into the tent where the patient was seated. The suitableness of the plants for medication (after being selected with great care) was proved by repeated trials made on myself and other strong persons; and the number of patients under my care at that time being very great, I had an opportunity of trying their effects more extensively, and consequently determining their fitness or unfitness as medication. I soon found, that many herbs valuable as medicines were inadmissible as medication, and all narcotic and corrosive plants, I wholly laid aside. On this ground alone, I consider the safety of my remedies to be of primary importance; and by attending to the three following essential rules, I believe that the bath may be taken with advantage, under every variety of indisposition or disease. *First*, that before taking the bath, the bowels be properly evacuated, if they require it; for whatever is in the stomach, whether morbid or healthy, by the action of the bath it will be drawn into the circulation. *Secondly*, the patient should use no poisonous drugs while taking the bath. And *thirdly*, no improper medication should be employed. The last recommendation should be as much

attended to, as administering medicine by the stomach; for when the poisonous properties of plants are taken into the circulation of the blood, they will produce as much harm when inhaled by the lungs as when taken in by the stomach. Notwithstanding, the consequences of taking poisonous medicine by the stomach, when the secretions of that organ are in a morbid state, are more dangerous in a general point of view, for if taken when there be much acridity or acidity present, death has been known to ensue. This circumstance points out the superior advantages of inhaling the virtue of herbs by the lungs, and carrying it into the circulation, without coming in contact with the food.

A remarkable instance of the perspiration being impregnated with the disease, or what has been received into the stomach, is, that when a person has drank brandy and water, half an hour previous to receiving the bath, the napkin with which he is wiped will smell of the spirit; vinegar, garlic, onions, and various other strong smelling vegetables have a similar tendency, shewing, in addition, that their volatile parts pass unassimilated through the system; and proving, to a demonstration, that the doctrines of vitality and assimilation, so long taught in our medical schools, is unfounded. It, moreover, proves the utility of the bath for accelerating the effects of alterative medicine, in bringing the whole body under their influence, in changing the state of the fluids in constitutional diseases, and in increasing the action of the absorbent system.

The specific effect of the patent medicated vapour bath on the animal economy, is

1st.—To equalize the circulation of the blood, and hence to remove coldness of the hands and feet, and to lessen the determination or flow of blood to the head.

2nd.—To promote sweat, and re-establish insensible perspiration, and thereby to relieve symptoms of internal inflammation.

3rd.—To diminish nervous irritability; and in no instance has it failed to cure tic douloureux.

4th.—To promote cutaneous eruptions, and remove diseases of the skin.

5th. To remove the effects of mercury from the system.

6th.—To promote absorption of dropsical effusions.

7th.—To relieve difficulty of breathing, and hence to cure asthma, and other diseases of the chest and lungs.

8th.—To strengthen the stomach, and impart a tone to the digestive organs, and cure dyspepsia with its consequent disorders.

9th.—To promote the healing of scrofulous and chronic ulcers.

10th.—To remove gouty and rheumatic pains and swellings from the joints, and cure lumbago, sciatica, &c.

11th.—In quinsy, croup, and hooping-cough: the very nature of these diseases points out the bath as the most powerful and certain remedy.

12th.—In measles no instance of death has taken place when the bath has been employed.

13th.—To prevent and cure discharges of blood from the lungs and other internal organs of the body.

14th.—To cure acute and chronic inflammation, the bath, judiciously medicated, is a certain specific.

15th.—To cure gout, in all its forms, in a shorter period of time than any agent hitherto employed.

16th.—The bath may be regarded as a specific in cholera morbus.

17th.—Intermittents (or agues), typhus and continued fever, the bath has never failed to relieve and cure, without the necessity of blood-letting.

Having given a few of the observations and experiments which I have made with the bath, it will be of importance to publish a corroborative statement of the experience of some of the first medical practitioners in America. If the reader peruses the documents attentively, and compares them with the report of any other system of bathing hitherto described, they will be found highly deserving the public attention and patronage.

Report of the Committee, appointed by the Subscribers, for the purchase and use of Mr. Charles Whitlaw's Medicated Vapour Bath, at a general Meeting of Stockholders, convened at the Museum in Washington city, April 26, 1825,

S. B. BARRELL in the Chair.

The Committee appointed by the Subscribers for purchasing Mr. Charles Whitlaw's medicated vapour bath, to superintend the use of the same in this city, conceive that the time is arrived when they ought to report more fully to the public, what they have now learned from experience and observation, during the last two months, of the real use and efficacy of the bath. They will detail nothing but facts that have come within their own knowledge, which, with some general observations on the nature

of warm or vapour baths in general, and of the specific difference of this from other baths, and the regulations which have been adopted for its use in this city, will comprise all that they wish to say, until further experiments shall have extended their knowledge of its power and utility.

Since the bath was opened on the 10th of March, it has been used by fifty persons, of all ages from 7 years to 70, one hundred and twenty-four times. We believe that in all these cases it has been useful, but the most numerous class of cases in which it has afforded almost immediate relief, and, in several, complete cure, are those of recent colds, rheumatism, inflamed eyes, eruptions on the skin, scrofulous swellings, and general debility.

A considerable number of patients whose eyes were so diseased that they had been completely laid aside from their usual avocations for many weeks, and suffered such intense pain as deprived them of sleep, and who had been subjected to the usual course of bleeding, blistering, and depletion by cathartics, in vain, have been effectually cured by the bath: in some cases, by three times using it; in others, six or eight times. Some of these persons are citizens of great respectability, to whom a personal reference can be made. Dyspepsia, nervous irritability, and general debility, have been greatly relieved by it. Its efficacy in cases of irregular arterial action, whether it has been too rapid or too slow, has been strongly marked in several instances. In the former the pulse has been reduced, and in the latter increased; and in all cases a great equalization of the circulation, and a lessening the tendency of the blood to the head, has been the speedy result of using the bath a very few times. It has a remarkable effect of clearing the skin from troublesome eruptions, and gives it a softness and freshness that is a striking indication of improved health. We have heard persons express their fears lest, in a state of great debility, it might prove injurious and dangerous. We can safely state that, to our knowledge, the weakest persons who have used the bath, have been strengthened by it; and we have not known a single instance in which the repeated use of it has not increased the vigour and activity of the patients. It doubtless requires some continued experience in giving the bath, to prevent the possibility of its being misused: and that experience we are daily acquiring.

Thus far we can speak from our own knowledge, and several of the medical gentlemen of this city, who have

advised their patients to use the bath, can vouch for the truth of some of these representations.

Vapour baths in this country have usually been the mere exposure of the body (except the head) to sulphureous exhalations, with a view to relieve rheumatic affections; or else the application of vapour, produced by a spirit lamp, to a patient in his bed, so as to produce profuse perspiration. But this latter mode has been found exceedingly inconvenient, and, in some instances, highly dangerous, from the excessive damp imparted to the bed-clothes by the operation. Besides, it is evident that no other object can be effected in this way, than merely exciting perspiration, and that without due regulation.

Mr. Whitlaw's vapour bath has not only decided advantages in these respects, but it attains other ends. Every one knows that various plants possess highly important medical virtues, and hence they are used in various instances in all countries, for purposes in which experience has pointed out their efficacy. In this bath, these herbs, properly prepared and preserved, are combined according to the object they are intended to effect. They are enclosed in a condensing box beneath the tent in which the patient sits, and steam, at a high temperature, being forced upon them from an adjacent boiler, their essential oils are carried up in the form of vapour, and fill the interior of the tent; which vapour not only acts upon the skin, but is inhaled by the lungs, and produces a grateful, but powerful effect on the whole system. During the fifteen or twenty minutes which the patient remains in this fragrant atmosphere, the perspiration usually flows copiously, and by constant wiping of the body, the pores are opened and cleansed. After coming out of the bath it is necessary to use the aid of an assistant to wipe the body perfectly dry, with as much friction as possible; and after dressing, to take the refreshment of a cup of coffee, remaining in the house half an hour or more, and then, in fine weather, a good brisk walk in the open air will not be attended with any danger, provided he be in sufficient health to enjoy it. Nothing more is necessary than to avoid a sudden chill from a cold draft of wind, or a damp atmosphere.

It has been doubted by professional men whether any effect could be produced on the viscera by the combination of the medicinal virtues of herbs with the blood, in its passage through the lungs, in the act of respiration. It is, however, known, that important effects have been produced by vapour from mercury, sulphur, and other minerals; and

we see no reason to doubt but persons possessed of medical science may, by a similar use of herbs, produce beneficial results in far more numerous and obstinate diseases than we are at present prepared to speak of. In the first access of bilious fever it may prove eminently useful. We request our physicians to make such experiments, and if they succeed in reaching some latent diseases by a method hitherto unknown or neglected, we are sure they will not reject the agent because it has not hitherto been in the regular course of practice.

This explanation of the nature and present state of the Medicated Vapour Bath Institution, in the city of Washington, is respectfully submitted to the consideration of the stockholders, by

THE COMMITTEE.

At a quarterly Meeting of the Medicated Vapour Bath Company, it was unanimously resolved, that the following Report be published in the Gazettes of the city.

Extract from the Minutes.

REPORT

Of the Physicians to the Medicated Vapour Bath Dispensary.

In conformity with the request of the Board of Directors, the physicians to the Medicated Vapour Bath Dispensary, with much pleasure, have drawn up a summary report, which they respectfully submit to the attention of the stockholders.

The important results from the application of simple as well as medicated vapour, in the treatment of certain chronic affections, having been attested by experience within the United States since its introduction, the following statement is intended to strengthen the confidence hitherto reposed.

The remarks submitted are the result of the observation of the medical directors, which includes the short period of scarce three months since its establishment. That no unqualified opinions may be promulgated on the treatment pursued in the Dispensary, it is desirable it should be distinctly understood, that many of the cases enumerated were treated with internal remedies, and general directions given with regard to regimen, &c. and all anomalous cases which obtained the use of the bath have been excluded from this report; particularly certain acute diseases, in which decided

advantage was derived, Such whose cases were not permanent must be attributed to the want of perseverance, and the unfrequency of its application, many having acknowledged relief from only three trials. During the period of eleven weeks 236 persons were admitted to the bath, 120 of which were patients of the Dispensary; of the latter number there were—of rheumatism 48, scrofula 6, debility 3, cutaneous eruptions 19, chronic hepatites 2, jaundice 1, dyspepsia 3, pulmonary affection 8, catarrh 7, dropsy 3, asthma 4, hæmoptysis 2, ulcers 4, leucorrhœa 1, intermittent fever 2, paralysis 3, hydrothorax 1, cynanche tonsylaris 3—total 120. Cured 36, relieved 68, no relief 16—120. The remaining number, 16, includes anomalous cases, those yet under treatment, or those who came for pleasure.*

In no instance was it brought to the knowledge of the physicians that injury resulted from the use of the bath; and it is due to truth to state, that where no good was expected, invalids were apprised of its probable inefficacy.

The general diary, or register of cases contains a statement of those who resorted to the bath as a preservation of health, by having removed from the surface of the body those depositions from free exhalations, and that are productive of derangement, particularly in the cuticular functions. It will not be a digression to mention, as information to those unacquainted with the fact, the sympathy existing between the functions of the surface and the internal organs. On general principles, the medical Directors are warranted in the assertion, that the judicious application of vapour is a good preservation of health, as well as a modifier of the violence of some troublesome and dangerous affections.

From this statement a judgment may be formed, whether or not the support of the establishment will benefit the community. The encouragement already extended augurs in its favour—its success rests on its utility; should that fail, it can never be attributed to injury inflicted.

The medical Directors are happy in communicating, that the generally received opinion still prevails that the Institution has certainly been beneficial, thereby reflecting considerable credit on the exertions of those who united to bestow its benefits on the afflicted.

* A case of country fever of seven days was cured by these applications of the bath during the present week, the patient being now convalescent.

Copy of Dr. Holbrook's Letter to Mr. Whitlaw.

Charleston, April 23, 1825.

Dear Sir:—Having attentively examined the effects of the medicated vapour bath upon your patients, I feel it an act of justice to state, that whatever may have been my previous opinions, or if you will my prejudices upon the subject of baths as a means of curing disease, I am constrained to allow, that the great and unexpected relief which has been experienced in a short time by the suffering and afflicted under your guidance, has gained my entire confidence: I have in two days time literally seen "the lame his crutch forego." The complets cures of long protracted cases of chronic disease, which now have every appearance of continuing, will render your invention highly acceptable to the medical profession, by removing from their hands a class of patients of which they in general would be gladly freed. I have also been surprised at the sudden cures of several severely acute diseases, which you have effected during your residence in this city. Your new application of a long catalogue of remedies heretofore neglected, has commenced a new era in the practice of medicine, and will hand your name down to future generations in the long list of worthies who have benefited the cause of humanity.

I am, with respect and esteem,

Your sincere friend,

MOSES HOLBROOK, M.D.

To Mr. Charles Whitlaw. S. M. C. A. Socius.

J. H. Duncan, M.D., concurs in the above opinions.

Copy of Mr. Shecut's Letter to Professor Mitchell.

Charleston, April 21st, 1825.

Dear Sir:—It has been my good fortune to be made acquainted with Mr. Charles Whitlaw, whose talents as a botanist are generally well known and appreciated in this country. I have also had an opportunity of investigating the principles, and in several instances of witnessing the effects of his invaluable medicated vapour bath; and I am confident, that those principles require no more than a candid and unprejudiced examination to render his practice acceptable to the scientific and humane, and adopted and used in the particular practice of physicians. The *modus operandi* of the process, and its effects in the particular diseases for which it is used, are no less rational than they are

truly scientific; and as the vegetable kingdom affords to our *materia medica* an extensive choice in the different classes of their medical virtues, that have been tested by ages of experience—if to convert the essential properties of those simples into vapours, and thus to cause the inhalation of those vapours to effect the relief or cure of individuals labouring under disease, be an innovation upon the science of medicine, so also must every recent chemical product, and every new formula offered as a remedy, be deemed likewise an innovation.

I am aware, my dear Sir, of the important necessity of guarding against imposition in the practice of medicine; but I am qualified to say, that an acquaintance with Mr. Whitlaw, and an accurate investigation of the principles of his discovery, and the rationale of his practice, must eventuate in the decided approbation of every liberal practitioner, and of every friend to humanity: and with myself, I am inclined to believe, they will cheerfully hail him as among the greatest benefactors of our country.

As this gentleman is on the eve of his departure for your city, I have availed myself of the opportunity of addressing you on the subject, conscious of the very great pleasure you experience in facilitating the views and promoting the designs of the humane and benevolent: and as the encouragement of this practice promises the greatest possible advantage to afflicted mortals, I cannot do otherwise than respectfully urge to your attentive consideration the merits of this gentleman and his important invention. Permit me at the same time to apprize you of an advantage likely to result to our tropical cities from the use of this simple and elegant invention,—the prevention and cure of that fatal scourge to our population, the yellow fever.

Should the event justify the prediction (and from the very nature of its application and effects it appears next to impossible to fail if timely and judiciously resorted to and applied), shall we not have abundant reasons to class this indefatigable friend to science and humanity with the immortal and lamented Howard, Valli, and other renowned benefactors of men.

It is my design to urge the adoption of this bath in the medical treatment of yellow fever; and I very sincerely believe, that with judicious management it will be found capable of effecting the reduction of the first stages of that disease. I should also urge the propriety of alternating electrical friction, sparks and modified shocks, with the bath; in both cases, however, the stomach and bowels are to be previously evacuated.

Be pleased, my dear Sir, to pardon the length of this letter; the importance of the subject, however, will, I am certain, be the best apology with you. At the same time I must entreat your forgiveness for the great lapse of time that has passed since I last wrote to you. Incessantly occupied with electrical practice and the formation of a new system of electricity, reducing it to a regular science, demanding almost every spare moment, will, with you, plead strongly in extenuation of my seeming neglect. I need not, I presume, say more to convince you of the sentiments of esteem and regard I have ever entertained for you, and pray you to accept the cordial salutation of,

My dear Sir, your's most respectfully,

R. E. W. S. SHECUT.

To Professor Samuel L. Mitchell,
New York.

Copy of a Letter from Drs. Lawrence and Henrickson.

New Lebanon, State of New York.

Worthy Friend:—Having made a thorough trial of the medicated vapour bath for four months past, in our societies in New Lebanon and Watervleit, we think it but justice to state, that we consider it an invaluable improvement in the healing art. Its power in reducing both chronic and acute inflammation, also in removing spasm, is certainly very great. In cases of obstructed perspiration, it is unquestionably the safest and best remedy that we have ever seen. Several persons in our society, who were scarcely free from a catarrhal affection during most of the winter months for several years past, have found permanent relief by using the bath a few times; and the predisposition to take cold, as it is commonly termed, seems to be wholly removed. Obstructed perspiration is certainly in our changeable climate, one of the most fruitful sources of disease; and any remedy that is capable of removing the predisposition to it, must be considered a great blessing to mankind; and as such we do not hesitate to recommend the medicated vapour bath, when used according to your directions, as a scientific and rational remedy in various diseases. Accept the assurance of our best wishes for your welfare.

GARRET K. LAWRENCE, M.D.
ABRAM HENRICKSON, M.D.

To Mr. Charles Whitlaw,
New York.

Previous to my leaving New York, the Committee of the Vapour Bath Company requested the seven physicians who superintended the bath, to send in a report of their respective cases for the quarter ending 1st October, 1825, the number, and the various diseases with which they were afflicted.

The following is a Copy of Dr. William Ireland's Cases.

Out of the number of cases submitted to the bath, 227 have been cured; and it is but justice to state, that in acute and chronic inflammation, more benefit has been derived from the use of the medicated vapour bath in twenty-four hours, than I have ever witnessed in a month's most successful practice.

The following is a list of the disorders included in the above 227 cases.

Obstinate visceral obstruction.
Acute and chronic affections of the liver.
Scorbutic diseases of the skin.
Scabies and old inveterate cutaneous disease.
Scald head, salt rheums, ring-worms, &c. &c.
Jaundice, lumbago, sciatica.
Acute and chronic rheumatism.
Asthmatic diseases, spitting of blood.
Palpitations of the heart, attended with weak small intermitting pulse.
Obstinate diarrhœa.
Erysipelatous inflammations, ophthalmia,
Obstinate glandular and scrofulous diseases.
Obstruction of urine and menses.
Strangury, spasmodic strictures, &c &c.
Syphilitic sore throat, eruptions of the skin.
Nodes, ulcers, &c. &c.
Tic doloureux, and nervous irritability.

W. IRELAND, M.D.

Copy of a Letter from Dr. Holbrook.

Charleston; December 29th, 1825.

Dear Sir:—Your letter of the 29th of September, from Philadelphia, was received on the 15th of October, too late to comply with your request by the 20th, in New York. From time to time I will, agreeably to your request, send you such bath cases as opportunity may offer. From the

hour you shewed me your bath at Mrs. Cockrane's, about the latter end of March last, and described its powers and efficacy to me, I have continued to nurse it as a favourite child; it was the means of restoring a beloved wife to a comparative state of health, and has been the sole means of her enjoying it in a degree that she never could have experienced without its aid; and I verily believe, it has prolonged her life from last May to the present time, with a reasonable prospect of its continuance for, I hope, many years yet to come. She was, as you can recollect, when I first carried her to your establishment in King-street, at death's door from phthisis pulmonalis of long standing; cough, expectoration, night sweats, sore throat, diarrhœa, loss of appetite, great emaciation, wakefulness, &c., were amongst the prominent symptoms of her case; and for *eleven months* previous she had not been able to walk about, or even sit up from her bed, more than an hour or two at a time. Now her appetite is good, no cough nor expectoration, good sleep at night, sits up all day, goes up and down stairs at pleasure, and often walks round to the baths, No. 3, Chamber-street, and back again after the bath, without fatigue;—for this great relief she feels solely indebted to your bath.

That my zeal in the cause of bathing might not be without knowledge, I have devoted, since I saw you, my leisure hours to searching in the original languages what I could glean upon the subject from the Greek and Latin, together with the French, and other European writers. The result is a large manuscript upon bathing, for the use of those who frequent the baths. You appear to have united in your baths, the principles of all that is valuable in bathing, whether ancient or modern,—whether used by civilized or uncivilized nations, residing in the cold or hot climates of the earth.

Those you established in this city appear to answer thus far the reasonable expectations of the associates. On the first day of October last, five months and twelve days after the Company received it from your hands, 386 different persons had tried it: of this number 246 were patients, 132 cured, 98 relieved, and only sixteen received no relief: some of these sixteen took only one or two baths, and could not be cured of dropsy or phthisis: of the 98 relieved, some have been since cured. Of the diseases, 66 rheumatism, 14 consumption, 21 bad colds, 24 cutaneous affections, 25 fever and ague, 5 bilious fever, 8 liver affected, 4 hæmorrhoids, 1 leprosy, 3 scurvy, 13 scrofula, 4 bad ulcers, 7

asthma, 10 dropsy, 2 dysentery, 1 pleurisy, 5 palsy, 7 sore throat, 3 leucorrhœa, 2 suppression of the menses, 2 hæmoptysis, 2 erysipelas, &c. You will see when you compare our little population with your own city, that we have done very well indeed.

We shall be always happy to hear from you of your health and welfare, and also all things relating to the baths: all publications relating to it, which may make their appearance, would be of service in putting down interest and prejudice.

With respect and esteem,
I subscribe myself your sincere friend,

MOSES HOLBROOK, M.D.

To C. Whitlaw, Esq.

Copy of a Letter extracted from the Gazette of Health, on Mr. Whitlaw's Patent Medicated Vapour Bath, October 1st, 1826, addressed to the Editors.

New York; August 1st, 1826.

Sirs:—Having been in the habit of reading your useful work, and observing its increasing circulation, both at home and abroad, I have thought proper to address to you a few lines respecting the use and virtues of the medicated vapour bath, introduced and patented in this country, about two years ago, by Mr. Charles Whitlaw.

This simple, though very important invention, is beginning to attract observation and awaken inquiry among many of the most liberal and well-informed physicians in this country, and will, ere long, be in very general use. I have superintended the establishment, formed in this city for the purpose of testing its usefulness and trying its effects, as a means in alleviating and curing disease, and have seen administered for that purpose about six thousand baths. From the results of this experience and attentive observation, it will not, I hope, be considered presumptuous in me to say, that I can speak with much confidence respecting its utility as a remedy in numerous complaints. If it be considered only as a simple warm vegetable vapour bath, its superiority over the warm water baths is not to be calculated. The vapour bath possesses the power of producing diaphoresis, or profuse perspiration, in *any state of the body* at will; therefore its effects must be salutary, efficacious, and pow-

erful. The proximate cause of morbid or diseased action is, by the most eminent physicians, attributed to a deranged state of the exhalent arteries of the skin, or follicles immediately under it; and when this insensible exhalation is not present, disease must, to a greater or less degree, supervene. Indeed, perfect health cannot long continue without it; while a contrary condition, such as heat, dryness of skin, ardent thirst, &c. &c., is at all times more or less present in disease. It cannot, in fact, be otherwise; for the substances thrown off by perspiration are positively deleterious, being partly composed of carbonic and nitrogen gases: hence the numerous contrivances and means adopted in all ages and in all countries to promote this absolutely necessary and healthy action of the extreme vessels of the surface. If, I say, the bath be considered only as a simple vegetable vapour, or rather effluvia, possessing these powers at will, its obvious utility as a remedy cannot for a moment be doubted. If it be considered as a *medicated* vapour bath, it may be observed, that the practice of inhaling the fumes, effluvia, vapours, &c., of different substances, such as the fumes of tar, &c, for diseases of the lungs; smoking stramonium, and other narcotics, in asthmatic affections; cinnabar, &c., in ulcerated sore throats, &c. &c.; but never to the same extent, or in so effectual a manner, until this simple, efficient, and happy invention, by Mr. Charles Whitlaw. When the body is labouring under disease, the restoration of that salutary discharge called diaphoresis, or perspiration, has long been the *desideratum* of the profession, and is, in all cases, the first symptom that indicates an approach towards a recovery; and where that cannot be accomplished, morbid action must be present, and disease continue. "A crisis," says a learned author, "is the actual discharge of morbid matter, whether by the bowels or skin, brought on by the powers of nature, or the aid of medicine." Here then, I say, is the *desideratum* at once; for, *in any state of the body*, this actual discharge can be brought on at will, and consequently a crisis formed in any stage of the disease. It would be an useless occupation of time and space to notice here all the particular effects produced on different habits and complaints, by the administration of about six thousand baths for the relief and cure of different diseases; but I feel myself called on by candour and truth to state, that I have never found its equal, as an aid to the means in our power, for the relief of suffering humanity; and when placed in the hands of those who will not abuse its merits, or blend its usefulness with *empiricism*, its advantages are

not to be calculated. Its manifest and immediate effects are, an agreeable and pleasant cleansing or purification of the whole body, producing an equal and general stimulation of the functions of the skin, and promoting animation, liveliness, and desire of food. It immediately relieves retropulsed eruptions, constriction, congestion, spasm, asthma, cholic, ardent fever, ardent and unquenchable thirst, dry and hot skin, &c. &c.

In cold listless habits of body, attended with a depravity of the functions of secretion, particularly those of the skin, the bath has never failed to produce the most beneficial effects; many having attended who had not experienced the pleasure of a natural perspiration, or a soft moist skin, for several years previously to their taking the bath. Its happy effects in green sickness, phlegmatic and debilitated habits, have been manifest in numerous cases, far beyond expectation. At the commencement of the cold stage, or at the accession of the febrile paroxysm, its effects are happy and instantaneous, and in most cases (if care be taken), a cure will at once be effected. In fact, its usefulness as a remedy in the practice of medicine is not to be calculated; and the field which is opened by this simple and invaluable invention, to the inquisitive and philosophical members of the profession, is immense.

I am, Sirs, your constant reader and friend,

W. M. IRELAND, M.D.

To the Editors of the Gazette of Health

MEDICATED VAPOUR BATHS.

Extract from the Charleston Gazette.

Charleston, South Carolina; April 20th, 1826.

At the Anniversary Meeting of the Medicated Vapour Bath Company, held at their Dispensary, on the 18th inst. the following Report of the attending physician was read, and ordered to be printed.

REPORT.

Agreeably to the rules and regulations the physician to the Medicated Vapour Bath Dispensary has the pleasure of submitting to the associates his annual report of the patients who have attended the establishment since they

purchased it of Mr. Whitlaw: and in discharging this duty he deems it incumbent, at the request of several Members, to discuss, and, if possible, to obviate some objections which have been considerably agitated since these baths have been introduced to the notice of the public in this country. A strong, but wholly unfounded prejudice exists in the opinions of many highly respected persons in the community, and even among respectable physicians, that the use of the baths debilitates, and that after a bath there is increased danger of "catching cold," if it be taken in cold or unpleasant weather. Such is not the case. Facts are of more consequence than deductions from established principles, in proving the correctness of his assertions; he will, therefore, appeal to the results of experience, that "the use of the vapour bath is, in reality, a tonic, and fortifies the system against cold."

Heat and cold are relative terms, and, by themselves considered, are neither strengthening nor debilitating, but are only so, mainly, as a consequence of certain states of the human system at the time of their application. Heat and moisture united have been long known to the intelligent physicians among the most valuable means of cure in certain cases; and wherever they have been most accurately known, they have been most highly appreciated—and in no way can they be so effectually administered as by vapour baths.

Pure morals have been invariably connected with cleanliness; we would, therefore, claim for this bath the merit of having, in this respect, a friendly influence upon society. Its immediate effects are, a pleasant sensation of comfort, and an agreeable warmth upon the whole body; the skin seems extended, and becomes softened: the dry and useless scarfskin soon becomes detached from its whole surface, and then follows a strong inclination to sleep. After the bath the person feels recruited and refreshed, his spirits are more buoyant, he experiences an agility and flexibleness of muscle to which he was before a stranger, and, in general, all the functions of the system are in healthy exercise, with more ease, and certainly with greater strength and energy. Although the income from the bath in this city is trifling to all concerned, yet it has fully answered the humane intentions of the associates. Its institution and the results of its application, in relieving pain and distress, must be peculiarly gratifying and satisfactory, when it is seen that of 681 patients, who for various ills resorted to the Dispensary in less than fifty weeks, ending with the 1st instant; 468 were

cured, 186 greatly relieved, and only 27 received no relief; many of the last having tried not more than one or two baths, and a number of those relieved are still patients of the Dispensary; many of the patients used other remedies in conjunction with the baths.

The diseases on which the medicated vapour bath has been administered during the last year are as follow:—

Influenza and Cold	211	Giddiness, or Vertigo	3
Rheumatisms	156	Bilious Cholic	3
Cutaneous Diseases	55	Inflammation of the Eyes	3
Pulmonic ditto	43	Scurvy	3
Dropsies	19	Chronic Diarrhœa	3
Diseased Liver	15	Burns and Scalds	2
Asthma	13	Pimpled Face	2
Debility	13	Pain in the Stomach	2
Scrofula	13	Dysentery	2
Fever and Ague	12	Cholera Morbus	2
Sore Throat	11	Fits	2
Bilious Fever	9	Stricture of the Uretha	2
Suppressio Mensium	8	Hysterics	2
Gout	7	Stiff Neck	2
Old Ulcers	7	Sore Lips	2
Swelled Face	7	Sciatica	2
Toothe Ache	7	Diseased Spine	2
Leucorrhœa	6	Ear Ache	2
Inflam. Tumours and Biles	6	Gravel	1
Palsy	6	Nettle Rash	1
Country Fever	5	Organic Affections of the Heart	1
St. Vitus's Dance	5	Pleurisy	1
St. Anthony's Fire	5	Jaundice	1
Dyspepsia, or Indigestion	4		
Spitting Blood	4		
Syphilis	4	Total of Fifty Diseases	681
Hæmorrhoids	4		

RECAPITULATION.

Cured	468
Relieved	186
No relief	27
Total	681

Copy of a Letter from William Ireland, M.D.

New York; September 30th, 1826.

My dear Sir:—I received your's of the third of the last month, and am happy to hear that you and Mrs. Whitlaw are in health. Notwithstanding the illiberal opposition you have to contend with, the great merit of your invaluable discoveries will carry you through. You will no doubt be

anxious to learn how we are proceeding here. We have removed our establishment to No. 71, Nassau-street, near the Park, and placed Mr. Corrall and his wife in charge of the house, who seem to answer very well. I received the paper in which was your Annual Report, just in time for the Meeting, and which gave us a great deal of pleasure. I have received letters from Dr. Ingalls, Dr. Lawrance, and Dr. Holbrook; all speaking in the highest terms of the bath, and of the many obstinate and hitherto unmanageable diseases relieved and cured at their different establishments. Dr. Lawrance mentions among his cases, obstinate obstructions of the uterus, obstinate and long standing rheumatism, deafness, hydrothrorax, hydrops pericardia, anasarca, erysipelas, chlorosis, sciatica, wounded nerve, &c. Dr. Ingalls mentions that the beneficial effects of the bath far exceed his most sanguine expectations. He has treated with great success cases of diseased prostate glands, indurated and scirrhous testicle, attended with enlarged spermatic cord, a variety of scrofulous cases of an obstinate and formidable nature, hemaptysis, rheumatism complicated with syphilis, cutaneous diseases of the most obstinate nature, &c. &c. Dr. Holbrook has been equally successful in its application to diseases peculiar to hot climates; such as bilious cholics, bilious fevers, jaundice, dysentery, cholera morbus, intermittents, &c. &c. Indeed, he has enumerated fifty different species of diseases which were brought under the list of the vapour bath at the dispensary the first year; and out of 681 patients, 468 were cured, and 186 relieved.

With these and numerous other incontestible facts before us, who can dare to say, that the medicated vapour bath is not one of the greatest blessings that ever was invented for the relief and cure of suffering humanity? I am myself so fully satisfied of its very extraordinary and powerful effects as an aid to general practice, that I would not be without it for all that I have hitherto known of my profession. It may for a time, like all other valuable inventions, meet with opposition from the illiberal and uninformed; but truisms and facts will certainly, though slowly, make their way; and the time will come when the profession can no more do without the aid of the vapour bath, than it can without the aid of the lancet. Had I been acquainted with the vapour bath while many years surgeon to the British army in the West Indies, how many thousands of victims could I have saved from the unrelenting jaws of death; and how would my mingled feelings of sorrow and regret have been changed to satisfaction and pleasure. I cannot conclude

without enumerating a few extraordinary cases which have come under my care since I last addressed you.

About six weeks ago I was called to a patient who had been given up by his attending physician; this patient, a young man about twenty years of age, had been ill about ten days with a severe paralytic affection of one side; on my visiting him, he had lost all sense of motion, sight, speech, &c. and was then labouring under spasmodic twitchings of the muscles of one side, resembling the symptoms of the last stage of hydrocephalus. Tongue dry and brown; skin hot and dry; pulse quick and small; evacuations involuntary; and deglutition difficult: in fact, he appeared to be *iter ad mortem*. In this state I advised the bath; he was placed in it, and supported by a servant, and the vapour rose to 106°; when perspiration began to flow, his spasms ceased, spirits returned, and he drank off a tumbler of warm wine and water without much difficulty. He remained twenty-five minutes in the bath, and then was able to walk to his bed with the help of one person. The pulse rose, and was less frequent; the spasms did not return; the perspiration continued to flow; he took more tepid drink, and fell into a sound and quiet sleep, which lasted several hours: he awoke and asked for more drink; continued to perspire profusely for twelve hours; had the bath every day, together with other medical treatment, and in two weeks was able to walk about; he is now quite recovered, and attending to his occupation. What an immense field of investigation does this open to us! Spasms and convulsive twitchings,—muscular contractions and constrictions,—restrained perspiration and obstructed secretions,—are all removed, when brought under this simple, though all-powerful agent, the medicated vapour bath. I have a great deal more to say, but must conclude; we are all well, and hope this will find you the same.

WILLIAM IRELAND, M.D.

To Mr. Charles Whitlaw.

Copy of a Letter from Mr. Hertell to the Honourable Ambrose Spencer, late Mayor of the city of Albany.

Sir:—Your letter to me, requesting information on the subject of the medicated vapour bath, in this city, was received and laid before the members of that institution, and by them referred to the medical gentlemen connected with the establishment, with a request that they would furnish,

as far as their experience enabled them to do, the requisite information. In compliance with which resolution, I have received from them the following communication.

The physicians on whom, pursuant to a resolution of the New York medicated vegetable vapour bath institution, you have called for information respecting the said bath, are happy in the opportunity thus afforded them of communicating the amount of their observation on that very interesting subject.

Aware of the errors which daily creep into medicine through the influence of high sounding names, popular credulity, or theoretical deduction, we have approached this new mode of administering medicine with much caution and careful inquiry, suffering experience alone to direct our footsteps; and after six months' assiduous attention, we are enabled unequivocally to state, that we are convinced that the medicated vegetable vapour bath, under judicious medical regulations, is a mild, safe, and efficient agent, in the cure of a large portion of the diseases to which the human family are liable. In diseases of irritation generally, we have found its application to be followed by a most happy, and in some instances, speedy effect. In glandular, visceral, and cutaneous obstructions—in leprous and herpatic eruptions of the skin—affections of the liver—chronic rheumatisms—mercurial diseases—and in weak and stiff joints, where the parts have not been anchylosed by previous disease—we have found the bath, conjointly with other medication, regimen, &c. to afford decided relief; and in a more especial manner have we been led to notice its efficacy in old inveterate local diseases, which had long resisted the efforts of men of high professional reputation. Those complaints yielding in most cases, and in some amounting to a complete cure, when the general treatment was aided by a well-timed and judicious application of the bath.

Our limited experience does not enable us to perceive all the varied forms of disease in which the bath may be ultimately found to be serviceable; but we hope to ripen in the knowledge as we progress in the use of it, and will in due succession present to the public such facts and observations as experience may elicit.

We will not dwell at present on the precise or entire *modus operandi* of the bath now under consideration; or defend the superiority of the operation of medicines administered through the medium of the *lungs* over that of the *stomach;* these are points for future inquiry: we are only prepared to state, that this bath, under proper medical regu-

lation, has reduced and cured diseases which the best regulated treatment had previously failed to do without it.

We disclaim all mysticism in the use of this bath. It is in our hands prescribed on the same principles as any other medicine. When a physician is called to a patient, he judges of the cause and nature of the disease, and prescribes the quantity and kind of agent he thinks most likely to relieve it; precisely on the same principle is the bath in question prescribed, with due regard to the state of constitution and habit of body at the time. We have some reason to believe, that, besides the agreeable stimulus of heat, one effect of the bath is to relieve irritation and diffuse equable excitement over the whole system. Now, if it be conceded, that a great proportion of diseases depend upon undue excitement, and unnatural irritation, goading the system into wrong action, the agency of the bath in the cure of them is at once apparent, and a guide is afforded us of the quantity and frequency of its application.

Medication of the bath is not considered necessary in every case; the soft relaxing power of heated vapour externally and internally simultaneously applied, being all sufficient. When medicated, the same regard is had to the properties of the medicating material, as in the exhibition of medicines by the stomach, and the rules of prescription under certain modification are the same.

In the infant state of this mode of administering medicine, we believe that few beyond the circle of its friends and associates are acquainted with its nature and character. In most of our cities to the south it is in successful operation, under the immediate direction of respectable medical men. In Boston and Philadelphia it has been very lately received with glowing expectations by men in the first walks of the profession, and has been approved and successfully prescribed in difficult cases by some of the most distinguished physicians in this city. In the true spirit of amity we cordially offer to all who feel interested in alleviating human misery, and particularly to those medical gentlemen who have not yet made themselves sufficiently acquainted with the subject to dispel their first prejudices, a full exposition of the principles on which we profess to exhibit this new mode of medication, and all our experience and opinions in reference thereto; satisfied as we are, that the subject only requires to be candidly examined to be understood, and understood to be approved.

Thus much I am expressly authorized, on the authority of the medical gentlemen connected with the Institution,

to say to you; and though it may be unnecessary and perhaps presumptuous, I shall take the liberty and incur the hazard of subjoining a few remarks of my own.

You will observe, the physicians have omitted to quote in support of their general statement, particular instances in which the bath has afforded relief or effected cure. They have, and perhaps correctly, reserved a detail of such facts for a future occasion. I mean, however, to notice two or three cases, not so much with a view to add to their testimony of the efficacy of the bath as a medical remedy, as to protect it against the imputation of *quackery*, with which (as you allege) "some persons from ignorance of its efficacy or from prejudice, have denounced it."

Permit me in the first place to remark, that I am not a physician, and may therefore be excuseable if I am not well informed of the precise signification which professional men have attached to the term *quackery*. I understand it to mean, in common parlance, "*malepracice in physic*"—or the exhibition of an injurious or useless pretended remedy, for diseases of the human or animal body: and he who prescribes, or exhibits such injurious or useless pretended remedy, is a *quack*. Neither of the two first of these definitions apply to the bath in question; nor the last to the medical gentlemen connected with it: because it is a fact, proved by the testimony of regular professional men, that they have "especially noticed the efficacy of the bath in old and inveterate local diseases, which have long resisted the efforts of men of high professional reputation;" and also that it has, "under proper medical regulation, reduced and cured diseases which the best regulated treatment had failed to do." Now, can that remedy be said, with any logical propriety, to be *quackery*, "which has cured diseases which have long resisted the efforts of men of high professional reputation," without placing the previous remedies, in point of efficacy, beneath that which is denounced as "malepractice in physic?" Would it not be libelling regular scientific practice, to denounce that remedy as a "dagerous quackery," "which has reduced and cured diseases which the best regulated treatment, in common practice, had failed to do?"

Mrs. G. was affected with elephantiasis, which, during eight years, had resisted the prescriptions of many professional men in the West Indies, Scotland and America. This case was radically cured by twelve baths, without any other material medical prescription. Here allow me to ask, Is the remedy which effected a cure in the case before us, more

deserving the imputation of quackery than the previous prescriptions which were barren of benefit to the patient ?

Mr. C. of this city, was affected with the liver complaint nine or ten years ; during which time he had the advice and aid of twelve medical gentlemen of great respectability in New England, and in this city. His case was once examined at one of the medical colleges in Massachusetts by a professor, in the presence of all the students ; but he had never received more than a partial, trifling and ephemeral benefit. A large abscess, which had formed in his side in the region of the liver, was opened, and before it closed discharged nearly a gallon of matter. After it closed another appeared in the same place, and progressed so near to suppuration, as to determine the attending physician to open it in the course of three or four days. In the interim the patient concluded to try the effect of the bath. A single bath produced an evident and almost immediate diminution of the tumour ; and in less than forty-eight hours the last vestige of it disappeared, and has not returned after the lapse of six months. Mr. C. is a well-informed and respectable man ; and he stated to me, a day or two since, that from the time he was nineteen years of age (he is now twenty-nine), he never experienced more than a trifling and transient alleviation of the symptoms of liver complaint, until he took the medicated vegetable vapour bath ; and that now, after a succession of baths, he suffers but very little inconvenience from the small remains of his disorder, which is still diminishing. Here the question again recurs, If the bath in this case was "a dangerous quackery," in what grade of medical science are we to place all the previous prescriptions which, for years, had proved too inefficient to effect a cure ?

A physician of a deservedly high grade in the first class of his profession, had a patient affected with a diseased hip-joint, for whom he prescribed the usual remedies, but without success. At a time when this patient was so debilitated as to be unable to walk but very little, even with the aid of crutches, it was determined, after much inquiry and investigation, to try the effect of the medicated vapour bath. Six baths enabled the patient to walk about the house with crutches. Six more were succeeded by the ability to walk in the streets with crutches. A succession of baths, probably thirty or forty, has enabled the patient to dispense with the use of crutches and to walk the street without them; and on the evening of the 29th of the last month, this person in my presence danced four or five cotillions without any

apparent difficulty, or any subsequent injurious effects. Though the attending physician in this case failed to effect a cure by the remedies in common use, yet that he was convinced by the result, that the bath was not "a dangerous quackery," is clearly proved by the following case.

A person of great respectability in the Western part of this State, had nearly a year been unable to walk without the aid of crutches, owing to a complaint in the knee. Several of the most respectable medical gentlemen in that part of the country, who were consulted on the case, entertained such various opinions as to the nature of the disease, as left it doubtful whether it was a white swelling or not. Their prescriptions afforded no relief; the patient was taken to Philadelphia, and placed under the care of one of the first professional gentlemen of that city. Obtaining no relief, and being (as I am informed) declared incurable, the patient left Philadelphia to return home almost hopeless of recovery. In this city, however, it was deemed adviseable to consult Dr. ——, the physician alluded to in the case last stated; who having witnessed the efficacy of the bath in that case, recommended it as most likely to afford relief in the present instance. The result proved the accuracy of his judgment, and the efficacy of the remedy; for this patient, after a few weeks' use of the bath, was enabled to walk without crutches, and to return home without the need or aid of them. Would it be just to call this gentleman a quack, whose advice was more beneficial to the patient than that of all the other physicians who had previously prescribed in the case? And would it not be absurd as well as unjust to denounce his prescription as "a dangerous quackery," when it produced that desirable result which all the other "regular treatment had long failed to do?" Does not the exhibition of useless inefficient remedies approximate more to "malepractice in physic" than those which afford relief or effect a cure? Does not that application of a medical remedy which effects relief or makes a cure, approach nearer to scientific practice than that which, although sanctioned by the medical schools, is unavailing of benefit to the patient? It is not intended to insinuate, because it would be incorrect to allege, that the unsuccessful exhibition of medicine by regular professional men, savours of empiricism, merely because of its failure to produce the desired effect. But it is no less absurd to denounce that remedy "a dangerous quackery," which relieves or cures diseases "which have long resisted the efforts of men of high professional reputation," and which, though not yet so generally under-

stood as to be received into favour by the medical colleges, has been recognized, approved, and successfully prescribed in England and in this country, by medical gentlemen of the first class in professional reputation.

It is not to be understood that the before-mentioned cases are all in which the bath has proved effectual as a medical remedy. A volume of such, and of those of more or less importance might be adduced by the physicians connected with the institution, were it necessary for the present purpose: although these are sufficient to shew that the bath, "under proper medical regulations," is not "a dangerous quackery." I am not disposed to close this communication without remarking, that it is always a good ground of suspicion, and most frequently a certain indicant of empiricism, when a remedy is recommended as an infallible cure for all disorders of the human system, however opposite their causes and different their characters No such wonderful powers are imputed to the medicated vapour bath in question. Its friends neither allege nor believe that it cures all disorders; or that it will at all times relieve, or cure the same disorder in different persons, or with the like facility. The causes of these different effects are latent, and probably various. The physicians neither affect to know or attempt to explain them. More experience, however, possibly may and probably will lead to their discovery, and also to the means by which they may be counteracted.

Another characteristic of empiricism is, that it seeks to evade inquiry, and shun investigation. Not so with the friends of the medicated vapour bath, or the physicians connected with it. They have no objection that it should, as a medical remedy, be subjected to the most prying and rigid scrutiny. On the contrary, they desire it—nay, "in the true spirit of amity," they have invited it; with a full conviction, that on a fair and candid investigation, the efficacy of this bath will be found, in most instances, to cure even prejudice itself.

Some persons, probably for want of correct information, or with a design to bring this bath into disrepute, have confounded it with others which have been abandoned for their inutility, or are now justly condemned for the mischief they do. Those who are not disposed to propagate an error, perpetuate a mistake, or give currency to a falsehood, and who may feel an interest in knowing the truth on this subject,—can ascertain, by a well-directed and candid investigation, that this bath, in the construction of its machinery,

its *modus operandi*, and in its efficacy as a medical remedy, is essentially dissimilar to all those with which it has been attempted to associate and confound it.

With much respect, I am, Sir, yours, &c.

THOS. HERTTELL.

The Hon. Ambrose Spencer,
Mayor of the City of Albany.

The following Letter from Dr. Hamilton, President of the Hunterian Society, to James Millar, Esq., as expressive of that Gentleman's opinion of the Vapour Bath, and as confirming the opinion of the Medical Profession in America.

Artillery Place; March 7th, 1826.

Dear Sir:—As the gentlemen composing the committee united to assist Mr. Whitlaw in his endeavours to cure or relieve the miserable objects afflicted with scrofula, are desirous of receiving my opinion of that gentleman's practice, I can state, that I have seen several persons with numerous scars of ulcers, who had been cured by his means. I have likewise known others labouring under that dreadful malady whilst under his care, and have marked in them a progressive amendment.

With regard to the vapour bath employed by him, I can speak more decidedly of its producing the greatest good in many complaints; and the more it is used I am convinced the more extensive will be the benefits resulting from it. I have ordered several of my patients to use it, and have witnessed its excellent effects in some desperate cases.

I beg you to present my best respects to the gentlemen of the committee, and to thank them for the good opinion they have been pleased to express of me.

I am, with great regard, dear Sir,
Your's most faithfully,

JAMES HAMILTON.

To James Millar, Esq.

MEDICATED VEGETABLE VAPOUR BATH INSTITUTION,

(FOR THE BENEFIT OF THE POOR)

No. 9, CROSS STREET, FINSBURY.

Committee.

R. I. Thornton, M.D.	Captain Gooch.
Mr. Lewis, *Surgeon.*	Mr. Thomas Roberts.
Mr. Coleman, *Surgeon.*	Mr. Thomas Coleman.
Mr. Mackness, *Surgeon.*	Mr. Hickson.
Mr. Winzar, *Surgeon.*	Mr. Bourne.
Rev. A. Fletcher.	Mr. March.
Rev. E. Dunn.	Mr. Stainsby.
Rev. M. Isaacs.	Mr. Leavers.
Rev. M. Wood.	Mr. Oliver.
Rev. R. Cecil.	Mr. J. Temple.
Rev. W. Henry.	Mr. Harrison.

Hon. Secretary—The Rev. W. Newland, A.M.

Surgeon—Mr. Whitlaw, Jun.

Many individuals in the higher and middle classes of society having experienced substantial benefit from Mr. Whitlaw's method of curing many diseases to which the human frame is subject; having also examined the Report of the Committee of the Bayswater Asylum for the cure of Scrofula and Glandular diseases under the direction of Mr. Whitlaw; and having moreover perused with attention numerous testimonials from medical gentlemen in America, well qualified to form an opinion of the merits of Mr. Whitlaw's Vapour Baths, and his general system of medical treatment so generally and successfully practised in that country,—feel disposed to unite in an effort to impart this benefit to the servants of their respective families, and to the poor in general.

They, have, therefore, commenced an Establishment for the use of the Poor, and they most confidently appeal to a benevolent public for that degree of support which will enable them to afford these important benefits to a large portion of their afflicted fellow-creatures.

A general Meeting of the Subscribers and Friends to the Vegetable Vapour Bath Institution, was held at the house of Mr. Whitlaw, No. 14, Finsbury Place, South, on Monday, the 15th of January, 1830, for the purpose of

appointing a committee of management, for the election of officers, and for other important business.

Mr. Whitlaw announced to the meeting, that Lieutenant-General Neville had promised to take the chair, but that unavoidable circumstances prevented his attendance; he therefore proposed that Mr. Croker should preside on the occasion.

The Rev. Mr. Wood having commenced the proceedings by prayer.

The Chairman observed, that having experienced considerable benefit from the vapour baths established by Mr. Whitlaw, he could testify to the benefits which they were calculated to confer on the public. The object of the present meeting was to appoint a committee for carrying into effect the rules and regulations of the Society.

Mr. Hewitt then read a series of resolutions agreed to at a former meeting for the guidance of the Society, and stated, that a female conneced with his family, who for thirty years had been the subject of internal disease, and who had in vain sought relief from the most eminent medical men in the metropolis, had been induced to try Mr. Whitlaw's baths. She experienced almost instantaneous relief, and from that period gradually recocovered, and was now in better health than she had been at any former period of her life. He concluded by reading the following Report:—"The object of this Society is, to apply the benefits which Mr. Whitlaw has been able to communicate to those who could afford to pay for it, and to as many others as it was possible for an individual to aid at his own cost, to the poor of the metropolis generally. Many hundreds have been effectually cured of scrofula, cancer, &c., at Mr. Whitlaw's own expense; a great number besides, at the Institution at Bayswater, which was established and supported by voluntary contributions. The design of the present meeting is to give effect to certain rules and regulations which were resolved upon at a previous meeting, by the appointment of a general committee of management. As a reason for the immediate adoption of such a course it may be stated, that the legitimate medical practitioner declares he cannot cure certain diseases to which the human frame is subject; amongst the most prominent of which are cancer, scrofula, consumption, leprosy, elephantiasis, chronic inflammation of the windpipe, lungs, &c.: the above diseases can generally be prevented and cured in their incipient stage; and acute inflammation, which is the basis of the greatest number of

diseases that prove fatal to the human race, can generally be subdued in a short time, when brought under Mr. Whitlaw's medical discipline."

Mr. Bourne said, that the benefits he had frequently experienced from the baths, enabled him to give a most decided testimony in their favour. He had recommended several persons to apply for aid to them, and they also had experienced similar benefits. He felt that he should be wanting in feeling to his fellow-creatures, if he did not approve of such an institution as this, and afford his best assistance towards its establishment. Many persons had come under his notice, whom he should have recommended to the care of Mr. Whitlaw, but he had refrained from doing so, as they could not afford to pay. He should do every thing in his power to further the designs of the present meeting, from a conviction that it was one of the first duties that he owed to the poor. He cordially moved the adoption of the Report.

Mr. Hewitt seconded the motion.

Mr. Whitlaw rose and said, that a gentleman from Sheffield would state a number of facts, tending to shew the extraordinary benefit which had resulted from the use of the vapour baths in Sheffield. That gentleman called upon him twelve months ago, being at that time in a very infirm state of health, but he had subsequently been perfectly cured. He hoped the medical profession in London would act with as much liberality as, from that gentleman's account, it appeared they had done at Sheffield.

Mr. Longden then rose and said, that he should have been most happy to have remained a silent spectator on the present occasion, and to have listened to the delightful details which would be brought before their notice. An imperative sense of public duty, however, constrained him to forego private feelings, and to come forward in that public manner to announce the benefits he had experienced himself, and to detail the beneficial influence of the vapour baths upon a number of the suffering inhabitants of the town of Sheffield. He was sorry that he was compelled to base the subject on his own individual case, and to bring forward his own history before that respectable assembly. He would, however, cast himself upon the kindness and liberality of the Christian philanthropists by whom he was confident he was surrounded, while he discharged that duty that he felt he owed the public, in declaring the benefits he had received from Mr. Whitlaw's vapour baths. Till within the last twelve months, he had been of the most delicate frame and

constitution. He existed, but he did not live,—his state of health was such that he was incapable of enjoying any of the comforts of life. There was scarcely a week preceding the period he had mentioned, that he did not expectorate blood from the lungs; and never was he for a moment during that time without a burning pain in his chest. He had travelled thousands of miles, and consulted physicians and medical men of the highest eminence in their profession, but nothing which they were able to administer ever afforded him more than momentary relief. About two years ago, when in private lodgings in the metropolis, he met with two gentlemen who had been using the vapour baths, and by them he was induced to have an interview with Mr. Whitlaw. That gentleman told him that he had treated several cases similar to his, and that in every instance he had succeeded in effecting a perfect cure. He was at that time in so delicate a state, that the least exertion was invariably followed by an expectoration of blood from the lungs. He should never forget the remark that was made to him by Mr. Whitlaw, on his first interview, which was, "Sir, if you come to me, I will make your lungs as tough as whitleather." The words Whitlaw and whitleather had ever since been associated in his mind. In December, 1828, he took two baths, but business did not permit him to remain longer in London. Upon the first occasion, before he had been in the bath a quarter of an hour, he felt persuaded that the bath would cure him. The vapour was as immediately directed to his lungs, as though an external application had been made to the inflamed part of his chest. During the early part of the last year, he devoted five weeks to an attendance upon the baths, which, together with the employment of Mr. Whitlaw's medicines, had produced not only a perfect cure of his lungs, but a complete renovation of his whole system. During the last eleven months he had been in a state of the most unexampled health, and was a perfect astonishment to his townsmen. Formerly he was pale, feeble, and emaciated, but he was now strong and robust. Feeling grateful to God for the blessings he had received, he asked Mr. Whitlaw whether similar benefits could not be conferred upon his townsmen, to which that gentleman replied, "Certainly, you can open an institution similar to mine, and if you will find me a man of intelligence, I will instruct him to administer my baths with the same success that I have done here." Upon his return to Sheffield, he sent an individual to London, who was instructed by Mr. Whitlaw, and he immediately opened

an institution in that town. From among the poor he selected six cases, which were conducted to a perfect cure; and upon that he issued a card, announcing the various diseases which the bath was capable of curing, being himself a living and an incontestible proof of the power which the bath possessed. He then called upon the medical gentlemen in the neighbourhood to examine the baths, and see what they were capable of effecting. The medical profession did honour to themselves by attending; and one of the principal physicians in the town, who was familiar with vapour bathing, shook him by the hand, and did him the honour of calling him (Mr. L.) one of the greatest benefactors of his species; adding, that he considered it a new era in medical practice, and that by the baths many valuable lives would be saved to the country, and that for the want of such baths many lives had been lost. He proceeded quietly with his projects, not resorting to advertisements; the medical men took up the subject, and rendered the most efficient aid. The first families in the neighbourhood availed themselves of the baths, some of whom had occasionally waited for some hours, owing to the numerous applications, and had retired being unable to procure a bath. He was now about to extend the project, by means of which he should be able to give 150 baths a day. He could refer to various classes of cures that had been performed. The medical profession had not hitherto afforded any opposition, and he had advised them not to do so, assuring them, that if it were required, he could produce cases which would confirm every word he had said; but if all the ordinary modes of treatment failed, to send the cases to him, and he would effect a cure by means of the bath. Several of them had done so. One of the first surgeons in the town sent him a child about four years of age, which when born was quite purple, and a scorbutic eruption soon broke out from head to toe. It was one mass of disease, and had never been free from pain from the moment of its birth. It had then arrived at a crisis, and appeared to be fast sinking into the arms of death. The surgeon said he had done all he could do for it; it must soon die: there was but one hope for it,—a new institution had been opened in the town, and he recommended the parents on the following morning to take it to the vapour bath; adding, that possibly the bath might cure it. The child was accordingly brought; the house was full of patients, who said it would be cruel to attempt to do any thing for it, it was too far gone.

The Chairman inquired, whether it was covered with sores at the time.

Mr. Longden said it was; they were unable to dress it; and it was merely covered with linen cloths, and wrapped in a blanket. It was put into the bath; in fifteen minutes it was in a profuse perspiration, which was the first time that ever perspiration had exuded through the skin. The medical gentleman called upon the parents the following morning, when the eruption had already began to disappear, and he immediately said that the bath would cure the child. On the second day it was again brought to the bath, and two days afterwards it walked to the bath, and walked from it, a distance altogether of three miles.

A gentleman inquired whether any medicine had been given to the child during the period it attended the bath.

Mr. Longden replied, that the medical gentleman continued his attendance, and administered whatever medicine he deemed proper. With regard to the cases of rheumatism, the cures were most astonishing, both in point of number, and the nature of the cases. A woman had been sent to him, who for about five years had not been able to go out of her house. After attending the bath but a very few number of times, she threw away her crutch, saying, "I have done with thee for ever." The medical gentlemen were now convinced of what they frequently had doubted, namely, that medication could be held in solution. He (Mr. L.) told one eminent practitioner, that if he would come to the bath he would engage to kill him with poison by means of the bath, or if he was not willing to have the experiment performed upon himself, he would perform the experiment upon a dog; and the inference was, that if medicated vapour had power to injure, it had also a power to benefit.

A lady inquired, what medicine Mr. Longden was in the habit of administering internally.

Mr. Longden replied, that he always left the surgeon to administer whatever medicine he deemed proper. He was now on the most friendly terms with the medical gentlemen who had done immortal honour to themselves, by the liberality of their principles. Having commenced the work, he was determined not to be set down as a quack and a mendicant; for in cases where the faculty failed to effect a cure, he in many instances succeeded in effecting one. He had recorded every case, and if it was necessary he could bring them forward; and he was happy to state that the list was now augmenting in a most gratifying manner.

A young female about 24 years of age, whom he had known about ten years ago in a Sunday-school, was in such a state of disease that she was unable to walk about without assistance. She had had a brain fever, which had left her in a hopeless state, and for three weeks the medical gentleman had discontinued his visits. The parents were poor people. She declared to him (Mr. L.), that for three weeks she had never slept one moment. Her sufferings were extremely severe, and she had the greatest intolerance of light. On the following morning to that upon which he saw her, she was brought to the bath, and the patients all declared, that the probability was that she would die in the bath. He, however, requested permission to exercise his own judgment, and she was accordingly placed in the bath. In about forty minutes she came down, perfectly capable of bearing the light; she had a smile on her countenance, and appeared altogether a new creature. The effect which the bath produced, was, to use her own words, "as if a pillar of fire went out of the top of her head." In about seven or eight baths she was perfectly cured.

The Chairman inquired whether the medical gentleman had seen her during the intervals of the baths.

Mr. Longden replied in the negative. The medical gentleman had declared that she was incurable, but the baths had completely effected that object.

The Chairman requested to know whether she had been to the infirmary.

Mr. Longden replied in the negative. So many of these things, he said, had taken place, that some of the classes of the poor entertained the idea that he was capable of working miracles, and one poor woman had actually come twelve miles under that impression. A young female, about 18 years of age, had applied to him, in consequence of a violent inflammation attacking her eyes, nose, and upper lip. She had been in the infirmary, where the ordinary antiphlogistic treatment had been adopted without effect. She attended the baths, and was perfectly cured. The son of his partner was seriously affected with scrofula of the foot, indeed, to such an extent, that the joint became anchylosed, and the medical profession were totally unable to render him any aid. By means of the bath he perfectly recovered, and some of the medical gentlemen doubted whether the joint had ever been anchylosed. The gentlemen of the profession were now in the habit of resorting to the bath, for the purpose of enjoying the comfort which it was capable of affording, even when no disease existed. To meet the

wishes of the medical gentlemen, he was about to adopt local baths, and he understood that it was their intention locally to apply heat to a much greater extent than it could be done generally. Mr. Longden concluded his interesting statement, by remarking that so far as he had hitherto proceeded, every step had been a right step. He believed the blessing of God rested upon the institution; that blessing had been sought, and they had every encouragement to believe, that it would not be withheld.

Mr. Bourne said that he had recently called on a gentleman in the city who had had occasion to consult an eminent physician, to whom he spoke of Mr. Whitlaw as a quack. "Stop, stop," said the physician, "not so much of a quack as you imagine. Mr. Whitlaw has introduced into this country a practice which has long been adopted, and that with great success, by the North-American Indians, which he seems to have reduced to a perfect system; and I have no doubt his bath is very useful in many cases where other supposed remedies have failed." Mr. B. therefore hoped, that ere long even the most eminent medical men would be disposed to do justice to Mr. Whitlaw's discoveries.

Mr. Whitlaw then rose and said, that it would be useless for him to attempt an enumeration of the extraordinary cases that had been cured by him. He had just perused a lecture delivered by Mr. Lawrence, on cancer, which appeared in the *Lancet* of Saturday last, in which that gentleman, after pointing out the primary seats of disease on the external surface of the body, proceeded to remark, that, "In the advanced stage of cancer, there are secondary depositions of a cancerous nature, which take place in a great variety of parts of the body. Thus the absorbent glands may become affected: the lungs, the liver, the bones, and various internal parts, may be the seats in a secondary way of cancerous affection." In reference to the treatment of cancer, Mr. Lawrence observed, "I come next to the consideration of the treatment of cancer. It appears almost necessary to ask whether cancer—that is, whether scirrhus in the first instances, and the ulcerative affection to which scirrhus subsequently leads, do admit of being cured at all? A very general opinion prevails, that true carcinoma does not, under any circumstances, admit of being cured. I believe, if the opinion of the most experienced individuals were asked on this point, they would have no hesitation in saying that the affection cannot be cured." Now cancer was one of the most affecting maladies of which a human

being could be the subject; so loathsome was the disease, that persons could not enter the place where an individual was who was the subject of that affection. Divine Providence, however, had made a provision for the cure of that disease, though the agents had not yet been generally employed. He had then under his care and under his own roof a very strongly marked case of cancer, which had occurred in the lady of a physician of the first eminence. She had had the opinion of Sir Astley Cooper and Dr. Blundell, who considered the case perfectly incurable. She was now making rapid progress towards a cure, and in fact he might say she was convalescent. Three ladies of eminent rank and fortune, had also been perfectly cured by means of the bath. And among other numerous striking proofs that could be brought forward of the beneficial influence of the baths in the cure of cancer, is that which occurred in the person of a lady, residing in Sloane-street, Chelsea. (*See page* 169.)

The medical gentlemen of this country had declared that cancer, consumption, leprosy, and elephantiasis are incurable diseases; but he was enabled to effect a cure in all those several complaints. The first case of leprosy that came under his observation, was that of a female from Stamford. He shewed the case to Dr. Hamilton, who declared that no case of leprosy had ever been cured subsequently to the period that Jesus Christ effected it by a miracle; to which he (Mr. W.) replied, that he believed God had appointed agents for the cure of every malady to which the human frame was liable. The patient was sent to Bayswater, and the first time she was placed in the bath she sloughed four quarts of scales. She continued persevering in the use of the bath, and at the expiration of eight months she was perfectly cured. He then presented her again to Dr. Hamilton, who literally cried with joy to behold the cure that was effected. As a proof of the powerful influence of the baths, he would just observe, that if a person drank half a pint of brandy, and then went into the bath, no intoxicating effect would be produced by it, but that the towel which he used would be strongly impregnated with the spirit. Hence it was obvious, that proper alteratives taken into the stomach, and drawn into the system, must be productive of the greatest benefit; and at the same time afforded a sufficient caution against poisons being taken internally, which upon the same principle could not fail to produce the greatest mischief. The disease called bronchitis, or inflammation of the mucous membrane of the wind-pipe, had within the last

twenty-five years become exceedingly prevalent in this country; and the faculty had declared that there was no perfect cure for the complaint when once fully developed Lunar caustic had been employed, but it had failed in producing a cure. Medicines taken internally did not reach the intended destination; but by means of the vapour bath, that object was effected. He had no hesitation in saying, that in the incipient stage, he could cure any of the diseases that he had enumerated, provided the patients would follow the rules he laid down as to regimen and medicine. He regretted that the benefits he was able to confer were so limited, and he therefore earnestly desired that the faculty in general would adopt his plans: being well persuaded that, in the incipient stages, the diseases he had mentioned were admissible of cure as any other that came within the province of the surgeon or the physician. He was willing to take from fifty to one hundred cases under his treatment of scirrhus in its incipient stage, where the patients could be so placed as that no infringement could be made upon their system of diet or moral discipline. He wished it to be understood, that in giving this challenge to the medical profession of England, he was not seeking his own emolument, being perfectly willing, when the efficacy of his plans were fully made known, to render his aid in the erection of baths, which should be immediately under the notice of the various practitioners; furnishing them with an ample supply of the herbs necessarily required, which could only be obtained from the forests of America.

Mr. Hewitt then read a list of subscriptions already received.

On the motion of the Rev. A. Fletcher, seconded by Mr. Hewitt, Mr. Charles Whitlaw, jun. was unanimously chosen Surgeon to the Institution.

A vote of thanks was then passed to the Chairman, who, in acknowledging the compliment, again adverted to the benefit he had experienced from the baths, and urged his friends present to exert their utmost influence in promoting the objects of the Institution.

The first Quarterly Meeting of the Subscribers and Friends to this Institution, was held at the house of Mr. Whitlaw, 14, Finsbury Place South, on Wednesday the 16th of June, 1830.

The Rev. W. Henry, of Tooting, on taking the Chair, said, that he had examined, not as a medical man, but with

the eye of common sense, the system which Mr. Whitlaw had prosecuted with so much success in mitigating evil; the result of which was a deep impression upon his mind, that the plan was a most effectual one. He would avail himself of that opportunity of expressing his personal gratitude to him (Mr. W.) for the benefit he had conferred upon a member of his (Mr. H.'s) family. The case was briefly this. One of his sons was affected with the hip-joint disease. Two physicians were called in, who ordered the customary antiphlogistic treatment to be adopted. He (Mr. H.) perceived, from the plan they pursued, that if recovery ultimately took place, it would be with an anchylosed joint. He inquired of the physicians how long they considered it would be before a cure was effected; to which they replied, eleven months. From the irksomeness of the position in which the boy was kept, and the rigourous antiphlogistic treatment adopted, his general health was fast declining. He (Mr. H.) then began to think more seriously of Mr. Whitlaw's baths, and thought they might be conducive to his son's general health, and that, if that object were accomplished, he would be better prepared for undergoing any future treatment that might be deemed necessary. He accordingly determined on sending him to the establishment at Bayswater, and about the same period was himself obliged to be absent from home. When he (Mr. H.) returned from his journey, which occupied about six weeks, he found his son at home, walking quite well, with his legs equal, though, when he left, the one was nearly an inch longer than the other. Two years had elapsed since that period, and the boy continued in perfect health. He did not mean to say that the vapour baths were capable of curing every disease; on the contrary, he believed, that while sin continued in the world, its concomitant disease would remain also; but he nevertheless thought, that the baths would mitigate and subdue many diseases which had hitherto baffled the skill of professional men.

Mr. Whitlaw then read the following Report:—

"Mr. Whitlaw has the pleasure of submitting to the Committee and Subscribers to the Vapour Bath Institution, for the benefit of the poor, a report of the state of the patients who have attended the establishment during the past quarter; and, in so doing, he deems it incumbent upon him to state, and if possible to obviate some objections which have been raised against these baths, since their introduction by him into this country. A strong, but wholly un-

founded prejudice exists in the minds of many highly respected persons, and even among respectable physicians, that the use of these baths debilitates, and that after the use of them there is increased danger of catching cold, if they be taken in cold or wet weather. Such is not the case: facts are more to be relied on than even deductions from established principles. In proof of the correctness of his assertions, he appeals to experience, which shews that the use of the vapour bath is in reality a tonic, and fortifies the system against cold.

"Although the subscriptions to the bath are but trifling compared with what they are required to be, yet they have fully answered the expectations of the projectors of the Institution; and the results of the application of the bath in relieving diseases that were heretofore deemed incurable, must be peculiarly gratifying to the contemplative mind, when it is seen that within three months, out of 82 cases afflicted with the undermentioned diseases, 40 have been discharged cured; nearly the whole of which had been pronounced incurable, or had in vain sought relief in the various hospitals, dispensaries, infirmaries, and other charitable institutions in this city and elsewhere. In only three cases has the application of the bath been unsuccessful. In the first case, owing to extensive adhesion, organic disease, and the long course of violent medical discipline, particularly during the last eight years, had so thickened the skin, and choked up the respiratory organs of the patient, that to have raised the bath to a temperature sufficient to force perspiration, would have endangered her life, and consequently the use of it was discontinued. The second case was a cancerous tumour on the arm, for which four successive operations had been performed, whereby the circulation of the glands was cut off, so that the bath and medicine were quite ineffectual; and the patient declining to submit to another operation, which was considered necessary, was discharged. The third was a case of scirrhus, or cancer in the breast, which, had the bath and medical practice been continued, there is every reason to believe, might have been cured: but the patient living at a great distance, was unable to attend, and after two baths discontinued it altogether.

"It is with the most sincere pleasure the Committee have to congratulate the friends and supporters of Mr. Whitlaw's Vapour Bath Institution, not only on the remarkable success attending the treatment of the patients at that Institution, but the medical effects resulting from Mr. W.'s

baths and medical treatment in other quarters of the globe. Dr. Fairbank's success in the cure of cholera morbus, leprosy, liver complaints, and atrophy, at Behie, in the Brazils (who has declared the medicated vapour bath and medical treatment a complete specific in the above disorders), is borne out in its fullest extent by the experience of Mr. Owen, who is superintending Mr. Whitlaw's baths in Calcutta, where it appears that cholera morbus, the most terrific scourge of the tropical climates, is at once divested of its fatal effects when brought under the power of the bath. The highest opinions are entertained of these baths by medical men of the first rank in the United States of America, who have declared them perfectly indispensable in their practice, especially in the treatment of constitutional diseases; as the testimony of Drs. Ireland, Henrickson, Holbrook, Lawrence, and Harlow, fully shew. The Committee would take that opportunity of acknowledging the great obligations Mr. Whitlaw is under to the above gentlemen, for their valuable communications from time to time on the discoveries they were making in their zealous investigation of the medicinal properties of plants, as applicable to the healing art. From their extensive opportunities of observation, they were raising the healing art to a degree of perfection unprecedented in the history of medicine.

"The Committee were also happy to state, that the various establishments in this country had been equally successful, as would be seen by the reports from Sheffield, Nottingham, Devizes, Hastings, Hull, Beccles, Turvey, Christchurch, and numerous private baths in various parts of the country. In conclusion, the Committee cannot but rejoice to hear that Mr. Whitlaw is now in treaty with a number of humane and enterprising individuals, who are about to establish these baths in all the principal towns in the kingdom."

Mr. Wilkins (of Cambridge) begged permission to offer a few observations. He was not aware, until he entered the room, that a meeting was to be held. He had come there for the purpose of having the effect of medication tried upon his sister, in a most extraordinary case; but being present, he could not refrain from stating a fact which had come under his own observation. While staying at Norwich, with Mr. Unthank, who had consulted Mr. Whitlaw with considerable success, Miss Marsh, a lady with whom he had been intimate a great number of years, was suffering in a violent degree from tic doloureux, and was reduced to the most pitiable state. Mr. Whitlaw being then

about to visit Norwich, he (Mr. Wilkins) recommended the lady to apply to him. She did so, and by his (Mr. Whitlaw's) advice, attended the establishment at Bayswater, where he (Mr. Wilkins) saw her, a few days ago, a perfect miracle: from being in the most deplorable state, she was now in as good health and spirits as he had ever seen her in his life, notwithstanding the faculty had deemed her incurable.

Mr. Whitlaw then proceeded to read the following list of cases which have undergone treatment during the last three months.

	Cases cured.	Under treatment.
Rheumatism	8	3
Dyspepsia, or Indigestion	3	
Palsy	3	2
Leucorrhœa	1	2
Pulmonary diseases	1	4
Scald Head	2	2
Erysipelas	1	
Coryza (Malignant)	1	
Porrigo Favosa of the Face	1	2
Elephantiasis		1
Scirrhus and Cancer		2
Nervous Debility and Loss of Voice	1	
Chronic Inflammation of the Stomach	1	
Asthma	1	3
Scrofula		8
Suppressio Mensium		1
Catarrh	1	
Leprosy	3	4
Scurvy	1	1
Painter's Colic	1	
Impetigo Excidens (Erosive Scall)	1	1
Giddiness	2	
Diseased Liver	3	
Spinal Affection	1	
Dropsy		1
Palpitation of the Heart	1	
Worms	1	
	40	37

Many of those cases, continued Mr. W., were of the most desperate nature, and no reasonable hope could be entertained of a cure being effected in less than twelve months. In several cases brought under the notice of the committee, the parties had been diseased from one to twenty years, and had in vain sought relief in all parts of the kingdom; in fact, they might be called forlorn hopes; but he had now the pleasure of stating, that they were perfectly cured. Many persons were apt to confound the vapour with the water and steam baths, set up in various parts of the kingdom, but they were totally dissimilar. To attempt to cure constitutional diseases with a common bath was perfectly useless In these it was impossible to raise the steam above the boiling point; but in such as he employed, that object could be effected. The vapour strongly impregnated with medicinal herbs, was inhaled by the lungs, taken up by the absorbents, and by them transmitted into the circulation. In the case to which Mr. Wilkins had alluded, common vapour baths would have been of no kind of service to the lady; and as a proof of that, mere medicine would not

effect a cure. It was only necessary to refer to the quantity she had taken without any beneficial result. Mr. Dalrymple, under whose professional care she had been, declared, that he (Mr. W.) would be a clever man, if he could cure her; but though she had only been a short time at Bayswater, he might declare her completely cured. When medicine was taken into the stomach in the ordinary way, it became combined with the food; and when the stomach was in a diseased and acrid condition, the medicine did more harm than good; but when held in suspension by the baths, it was taken into the circulation, and produced the most salutary effects upon the disease itself. Resin was one of the most insoluble substances, and could only be held in suspension by compressed steam, through the medium of which it was inhaled into the lungs, when cooled down to a temperature fit for inspiration. In America, the most astonishing progress had been made by upwards of fifty medical men, who had tried various experiments with the bath. About 400 new plants had been added to the pharmacopœia, and by means of a medicated bath, they have in some instances actually combated and cured open cancer. A gentleman, seventy-two years of age, who was affected with cancer of the lip was now perfectly cured, though one side of the jaw-bone had been denuded in consequence of the disease. By means of the bath, the noxious substances diffused in the cellular membranes of the body were removed, and wholesome nutritious ingredients substituted for them. It was with extreme regret he felt himself compelled to state, that a great calamity was likely to overspread this country, in consequence of the injurious food which sheep and cattle were allowed to partake of. He was told a few days ago, that one farmer near Stone Crouch had lost five hundred breeding ewes since Christmas; and that a large grazier near Romney Marsh, had lost near ten thousand pound by diseased stock during the past winter. Men were amusing themselves by talking about fever, and representing it as a malady not capable of explanation, but any man possessed of common sense might easily ascertain that it arose from the noxious food supplied to animals, and communicated to the human frame by meat, butter and milk. Mr. Whitlaw then referred to the success of the baths, wherever they had been established in the country, and expressed his thankfulness that they were now beginning to be adopted in private practice. When he first came to this city, the whole of the faculty were arrayed against him, and denounced the baths as a system of quackery. It was no easy matter to withstand

the virulent attacks that were made upon him, but he had done so and had conquered; and he now rejoiced to contemplate the arrival of a period, when prejudice must give way before stubborn facts, and when the following remark, made by the late Dr. Hamilton, would be fully realised: "It is as impossible to shut out the benefits of vapour baths from the world, as to shut out the sun when the clouds disappear."

A series of resolutions were then proposed by Mr. Bourne, seconded by Mr. Trimmer, and unanimously carried.

Mr. Clark then rose and said, that in one point of view, it was with extreme reluctance that he addressed the assembly, and nothing could have induced him to stand forward on this occasion, but a sense of duty which was every day more deeply impressed upon his health. When he contrasted his present with his past state of health, he scarcely knew in what terms of gratitude to speak. His illness originated from a severe cold, which being neglected for more than four months brought on inflammation of the lungs, from which but slight hopes of recovery were entertained. He lingered until the month of December, when the disease assumed a more unfavourable aspect in consequence of the rupture of a blood-vessel in the larynx, and the formation of an abscess. He enjoyed the advantages of the greatest medical skill, but he daily grew worse and worse. He had devoted himself to the work of the ministry, and his afflictions were embittered with the impression, that if he recovered from his illness, yet, in consequence of the disease having attacked the mucous membrane of the wind-pipe, it was the opinion of Dr. Paris, that he would be compelled to abandon his ministerial duties on account of the tendency to inflammation, which would always exist from the efforts of public speaking. But the audience might judge of the gratitude he felt when he informed them, that after taking four baths, he was enabled to speak long and loud, without any inconvenience at the time, or any bad effects afterwards. Thus, in his own case, he had the most decided evidence of the benefit which the baths were capable of conferring. The most afflicted, and those who were unable to obtain relief from any other source, might take encouragement from his case. When he looked around him and saw disease prevailing, he felt bound to make known by all means in his power so important and so effectual a mode of cure. He rejoiced in recommending an agent so efficient as the vapour bath, the efficacy of which he had not only experienced in his own case, but seen in many others.

Several other gentlemen bore testimony to the decided improvement in their health, effected by means of Mr. Whitlaw's vapour bath.

FIRST ANNUAL REPORT,

Adopted at the Annual Meeting, held at the City of London Tavern, March 21st, 1831.

The Committee of the Medicated Vapour Bath Institution, in presenting the First Annual Report to the subscribers and friends of the institution, are happy in being able to state numerous instances where the vapour bath, after other remedies had proved wholly inefficient, has been attended with remarkable success. The prejudices once entertained against this remedy are now nearly extinct, the question of its efficacy having been decided by experiment,—the best of all tests,—a test which enables any man, even without medical science, to form an opinion. A certain degree of scepticism or doubt, previous to demonstration, is commendable, and very useful in checking imposture, by subjectiug whatever may be exhibited for the benefit of mankind to a rigid scrutiny :—it is not always possible to decide the truth of a theory by an appeal to the senses, but as to the vapour bath, it is in the power of every man to form a decision, either by his own experience or by observation of its salutary effects: for when every remedy within the limits of the pharmacopœia, and when medical skill has done its utmost without success, the vapour bath has restored to perfect health: there cannot, therefore, be any room for hesitation, or for the slightest diversity of opinion It is far from the wish of the Committee to disparage medical science, being of opinion that the inefficiency of the usual remedies is not owing to want of skill and ingenuity in the medical profession. The most able and enlightened men in the profession in Britain, on the Continent of Europe, and in America, not only approve of the vapour bath, but, in many instances, promote its establishment and application, particularly in rheumatism, in gout, in the diseases of the skin, and the digestive organs.

With such proofs of the utility of the vapour bath, the Committee feel it a duty to call upon the public to come forward in support of an institution which has been the means of doing much good, and which would be the means of accomplishing still more, but for the funds being wholly inadequate to admit of extending relief to the many individuals who have claims on the sympathy and liberality of

the public. To many of the subscribers and friends of this institution it is unnecessary to offer any arguments in favour of the vapour bath; and if any doubt remains on the mind of any individual, the Committee would earnestly invite him to attend the Institution, and to judge for himself. It is the duty of all men, in proportion to their opportunities and abilities, to alleviate suffering, and to do good to their fellow-men: we are called upon to imitate Him who has said, "Call upon me in the day of trouble, and I will answer thee." The patients of this Institution are unable to recompence their benefactors; nor is it necessary that they should: for if any give even a cup of cold water, from a regard to the will of God, he will receive his recompence in the resurrection of the just.

The success of the establishment is exemplified in the following list of diseases, and number of patients:—182 patients have been admitted into the Institution during the past year, many of whom had been afflicted with chronic and, hitherto, unmanageable disorders of every variety, and from one to twenty years' standing. Of the above number of patients, 106 cases have been cured; 36 relieved so far as to be able to follow their usual employment; and 10 have experienced little or no benefit: all these were afflicted with organic diseases, such as no medical treatment could hope to alleviate. There are now forty patients attending the Institution, many of whom are nearly recovered.

NUMBER OF CASES CURED, &c.

Rheumatism	25	Brought over	70
Ulceration of the Throat	1	Spinal affections	2
Various species of Leprosy	4	Tinea Capitis, or Scald Head	2
Scrofula	8	Inflammation of the Knee-joint	2
Liver complaints	5	Erysipelas	4
Indigestion	5	Female complaints	4
Coryza	2	Ichthyosis, or Fish Skin disease	2
Impetigo	3	Common Cold and Cough	4
Porrigo	2	Sciatica	3
Aphonia, or loss of voice	1	Bronchitis	2
Palpitation of the Heart	2	Erythyma	1
Chronic Inflammation of the Stomach	1	Palsy	4
Asthma	3	Worms	2
Scurvy	2	Catarrh	2
Painter's Colic	1	Tic-douloureux	2
Giddiness, and determination of blood to the Head	3	Total of cases cured	106
Pulmonary diseases	2	Relieved	36
		Under treatment	40
	70		182

The number of Baths given, and Medicine administered, is as follows:—

Baths	2112
Bottles of Medicine	1205
Boxes of Pills	104
Pots of Ointment	139
Dozens of Powders	30

Many letters have been received from most respectable gentlemen in various parts of the country, containing cases illustrating the usefulness of the medicated vapour baths, and communicating the beneficial results of the treatment recommended by Mr. Whitlaw in connection with their use, from which the following are selected.

Letter from Mr. J. Mackness, Surgeon, Northampton, addressed to Mr. Whitlaw.

Dear Sir;—I am sorry particular circumstances prevent me from being at the Meeting on Monday next, which I should like to attend; and I know not that I have any thing more to say, than the oft-repeated tale, viz., that the vapour bath is one of the safest and most beneficial remedial agents, in alleviating disease and improving the general health, when it is impaired either by violent remedies taken to cure disease, or by disease itself. However, I may mention two cases of the efficacy of the bath, which may be probably interesting to you.

A very respectable tradesman of Northampton had been suffering, for about two months, dreadfully from tic douloureux: the paroxysm came on about every two hours, night and day: the general health was pretty good. He had been taking medicine during the whole of that time, and was under the care of a highly respectable medical man; he informed me, he had also taken quinine in rather large doses, but without the slightest alleviation of the symptoms. When he applied to me, I at once recommended him the bath, and some alterative medicine. After taking the bath once, he was enabled to sleep a whole night, free from pain; after taking the bath a second time, he has remained perfectly free from pain up to the present time, about five months.

The other case alluded to is now under my superintendance, and is as follows:—A man in rather poor circumstances, with a large family, had been suffering for the last four or five years with continual pain at the stomach (borborygma), combined with every other symptom of derangement of the functions of the stomach, liver and bowels.

Whenever he has attempted to eat the most easily digestable articles of food, the pain has been incessant, until it has been either expelled by sickness, or passed into the bowels. He has lost flesh very much; states he has been under the care of most of the medical men of Northampton, without deriving any benefit. He considers his illness first arose from the following circumstance:—He is by trade a blacksmith, but is always employed in the gas-house; as he was making the gas, which is very hot work, he took, when excessively heated, a large draught of cold water—since which time he has never been free from pain. I advised him the bath, assuring him I could get him well; and although he had never been able to work the least for five months, he assured me this day, when he came to take his fifth bath, that yesterday he worked from eight o'clock in the morning till half-past six o'clock in the evening, without feeling tired; and that he has scarcely felt the distressing pain since he began to take the bath.

Your's sincerely,

J. MACKNESS.

Northampton; March 9th, 1831.

Letter from the Rev. B. Cave, to Mr. T. Cecil, of Birmingham.

Dear Sir:—As a public meeting is soon to be held in London, on the behalf of the Vegetable Vapour Bath Establishment, upon the principles of Mr. Whitlaw, in order to recommend it for its extensive utility and extraordinary cures; I wish to have known in the metropolis, something of what has been done in Birmingham by your very valuable vegetable vapour bath. Though this is only one case out of several that might be mentioned, and deserving to be known and published, for the benefit of other sufferers, far and near.

I refer to my own case, which was published in *Aris's Gazette*, last October. I was most painfully afflicted with the tic doloureux, which settled in my head, over the right eye. My complaint continued for about seven years; and for the last three years I suffered extreme and frequent returning pain. So acute was it, and so frequently did it return upon every kind of motion, external and internal, that I was totally disabled from preaching (to which I had been accustomed for more than thirty years), and was most painfully attacked in family prayer, and even in private, which

was a source of great distress to me. My spirits were dreadfully affected: I feared that all my public usefulness was at an end; that my constitution would be undermined, and that I should know ease and health no more. Comfort, activity and usefulness, were most distressfully suspended: all my meals were miserable repasts; and many times I was obliged to stop or rise from table, and walk about the house to obtain a little ease; for food and pain were inseparable. In short, I suffered more agony in six months, than ever I had experienced in twenty years, and life itself seemed greatly in danger. Medical aid was sought in vain; and the most specific medicines were tried without effect, or at most afforded only a little temporary relief, and afterwards utterly failed, though repeatedly taken.

After these agonizing sufferings, I read in the *World* newspaper of a public meeting in London, at which was related the wonderful cures Mr. Whitlaw had performed by his vegetable vapour baths, and that he had cured the tic doloureux. Soon after I heard that an institution was established in Upper Temple-street, Birmingham, under your care. I attended, Sir, as you may remember, three times a week; the first week I felt no benefit. At this time Mr. Whitlaw came to Birmingham: I heard his lecture, and had several pangs during the time. After it was ended, I told him my case with despondency: he urged me to persevere, and assured me of a certain cure. I went to the bath a second week, and found very little benefit; but the third week I received much relief: and the fourth week I experienced a happy cure, Every pang of pain was gone: I enjoyed my meals as well as ever, and returned to prayer and praise with comfort and gratitude.

I have since last November made but little use of the bath, excepting now and then merely as an antidote, and have had no relapse. I continue to eat and drink with pleasure, and attend public worship with comfort and praise the Lord. Though I frequently travel a number of miles in all weathers of frost snow and rain to preach the Gospel of Christ, I now find no interruption from my old desperate complaint the tic doloureux.

Oh, Sir, I feel my deliverance to be great indeed; and I feel my obligation to the vegetable vapour bath; which, under a kind Providence, has done so much for me; and not only to myself, but also to many others.

To conclude, I thank Mr. Whitlaw for his indefatigable labours about the baths; I thank you, Sir, for your kind and unremitting attention to my case; and, above all, I

thank God for leading to the discovery, and for His effectual blessing upon these philanthropic endeavours. With hearty wishes for all desirable success to attend your healing baths,

I remain, dear Sir,
Your obedient, humble Servant,
B. CAVE.

Birmingham; March 13th, 1831.

From Mr. J. Vaughan, of Oswestry, to Mr. Whitlaw.

Dear Sir :—In the close of your last letter you observed, that any communication respecting the success of the bath here would be interesting to you: I am happy to be able to say, that although we have not given that publicity to the success of its operation which it has deserved, yet we are able to communicate to you some intelligence which, perhaps, will not be less gratifying to you, than it has been interesting to us, and beneficial to those who availed themselves of the use of the bath.

The limits of my present letter will not allow me to enter into a full detail of all the facts and circumstances connected with the cases of the different individuals who have derived more or less benefit from the bath here; a few therefore must at present suffice.

You are aware that our principal inducement in having the bath introduced into Oswestry, was, the hip-joint disease of a little boy, the son of one of the deacons of our church, and also another afflicted family. Of the former we are happy to say, that although he has not derived that benefit from the bath, &c., which the son of the Rev. Mr. Henry, of Tooting, did; yet his general health has been very much improved, and he is at present able to walk across his father's parlour without any assistance, and without much apparent difficulty.

We think it due to you, Sir, to state the benefit Mrs. Davies, the lady of Mr. Davies, has derived from the use of the bath. For a description of her case, you need only refer to my letter of August 18th. The complaint therein described became so desperate before your letter reached us, that we resolved to try the bath, believing it was hardly possible to aggravate the disease. We accordingly administered one bath to her before we received your reply; and so great was the benefit she derived from one bath only, that the immense discharge of matter immediately ceased.

Mrs D. took four or five baths to substantiate the cure, and has never since experienced the least return of the disease: to use her own words, she does not remember when her general health was better than it has been since that time.

A young lady, related to the Rev. Mr. Williams, of Wern, has also derived incalculable benefit from the use of the bath. When she applied to us, she was so afflicted with inflammation of the eyes, as not only to be totally unable to see, but also unable to endure the light. She received sixteen or seventeen baths, and the medicine; and when she left Oswestry, she was able to read! It should be observed, that she had availed herself of the skill of the most celebrated physicians in Chester, and this neighbourhood, but all to little or no effect. She is at present in the enjoyment of very good health.

A daughter also of the Rev. gentleman before alluded to, who was afflicted with what a celebrated physician in this neighbourhood termed an enlargement of the heart, received great benefit from the application of the bath, &c. A few weeks before she came here, she was so debilitated as to be unable to walk. She took sixteen or seventeen baths, and was so much relieved, that a further continuance was thought unnecessary. She has since enjoyed very good health.

We have also had a case of rheumatism, which had resisted the force of all the medical skill which the young lady could avail herself of, and also the efficacy of the Buxton Wells. After having tried every thing to no effect, she applied to us for the use of the bath. When she first came, she was unable to walk. She derived very apparent benefit from sixteen or seventeen baths; and we had the pleasure to hear a few days ago, that she was so far restored as to be able to dance.

We could mention other cases very much relieved: amongst whom were two of the children of the afflicted Mr. Davies, plumber, whose cases were described to you when I was in London; but the foregoing are sufficient to prove the superiority of Mr. Whitlaw's patent medicated vapour bath over every other agent heretofore employed.

I remain, dear Sir, your's respectfully,

S. VAUGHAN.

Oswestry; March 12th, 1831.

MEDICATED VEGETABLE VAPOUR BATH INSTITUTION.

Proceedings of the First Annual Meeting of the Subscribers and Friends of the Institution held Monday, March 21st, 1831, at the City of London Tavern. The Meeting was numerously attended, and of the highest respectability, consisting of many of the Nobility, Dissenting Ministers, Physicians, Medical Students, &c.

James Tickner, Esq. having been called to the chair, proceeded to the business of the Meeting, by observing,—

It was with great reluctance that he had yielded to the desire of the Committee to preside on this interesting occasion; but his disinclination did not arise from any want of zeal for the success of this invaluable charity. Quite the contrary: for he was penetrated with the most indelible convictions of its incomparable excellency. But he was conscious that it might be considered arrogance in so humble an individual occupying so important a station; and he believed that the cause of the Institution would have been better promoted, had some person of higher distinction, and more competency presided. It would, however, now he had taken the chair, be highly improper in him to occupy the time by observations on himself; but he must be permitted to advert to the only circumstance that could justify him in taking that post; it was, that he had been a recipient of the invaluable benefits of the vapour bath. It was his decided opinion, that at this moment he should not have been in the world to speak of its praise, if it had not been for this most simple and efficacious remedy. Or if he had, it would only have been to drag along through a few fleeting years a miserable existence. He was therefore a living monument of the efficacy of this system of treating disease: and he should be ingrate if he did not do all in his power to extend to others the same benefit: and especially to the poor, whom, they were reminded by the highest authority, they had always with them; and who were committed to the care of those who possessed this world's goods, that the one class might be preserved, and the gratitude of the other exemplified before the Giver of every good and perfect gift. He would not detain them by any lengthened observations on the nature of the system,—that being a matter of medical science; he could only apply common sense to the subject. The very acute sufferings from which

he had been relieved by the use of the vapour bath, had induced him to think much on the subject. The result of his thoughts was, that without any hesitation he could declare his firm belief,—and he had no more doubt of it than he had of his own existence,—that in some cases it was indispensably necessary, and the only remedy; and that it was most safe and efficacious for the cure or mitigation of almost every malady, whether mental or physical, to which man was liable. He flattered himself he could render reasons for the faith that was in him on this point; but this was not a fit time for elaborate argument on a question with which it might be presumed every one present was acquainted, and could duly appreciate.—The bath was suitable to all climates, seasons, ages, and in every stage of disease, which it would either cure or relieve. It would be alike efficacious in the first stage of inflammatory action, and in the highest of fever. It would regulate the full and plethoric; and invigorate and restore the spare and consumptive. In mental affections it would operate on the morbid matter, remove all obstructions to the action of the great machine, and give it that elasticity and vigour it had lost. As a preserver of health, and a promoter of longevity, it was equally efficient; inasmuch as it purified the animal system, and counteracted the effects of irregular diet, which often laid the foundation for the most inveterate diseases. It enlivened the spirits, and invigorated the frame; and he believed, those who were in the habit of using the bath, would never be attacked by dangerous fevers. He declared that he would not forego its advantages for any consideration. Charity, then, should on every consideration dispose them to dispense these benefits. The poor could not obtain them alone, but the rich should put it in their power to do so. Though there were many institutions calculated to relieve either slow disease or sudden malady, there was sufficient room for the extension of this remedy, which was superior to any other.—The object of this Meeting was to create a *nucleus* for a wider distribution of the benefits of this invaluable institution.

The Report and list of cases were then read; after which Mr. Whitlaw proceeded to observe—

That probably in no hospital in this city were to be seen such miserable cases as those attending this Institution; as few of the patients had applied to him until they had tried the hospitals and dispensaries, seeking in vain for relief. Many of them had been discharged from these establishments as incurable; and others deemed so hopeless and

tedious, as to be refused even admission. Such were the cases daily presenting themselves to his notice, and claiming his commisseration. The funds of this charity being at present very limited, it was impossible to admit one half of those who came intreating relief; he had consequently, at his own expense, undertaken many cases of the worst description;—persons who had been dragging along a miserable existence, from five to twenty years of unmitigated suffering: these were cases of rheumatism in aged individuals, where the very tendons or ligaments seemed converted into bone by the severity of the continued inflammation; and yet these cases were not only relieved from pain, but the limbs were again capable of performing their accustomed though long lost motions. And cases also of a more melancholy description, where the injudicious (he might rather say criminal) use of mercury, and other narcotic, acrid and corrosive poisons, had produced the most terrible effects on the bones. Still the long-continued use of the bath and medicines, even in these cases, had performed cures nearly in every instance. Then with respect to nervous diseases, or those more immediately connected with the mental faculties, it was well known that the present practice of medicine could do but little towards their relief,—as the alarming progress of insanity, and the hopeless captivity of its victims abundantly proved. But the bath properly medicated, with mild alterative medicine, and appropriate diet, had restored many labouring under these affections, to the enjoyments of society and an equal mind. Moreover, in his private practice, he (Mr. W.) had at this time under his care, patients suffering from the extremes of fear, grief, love, and another disease but seldom met with, called by some writers *malliatio*. In the latter disease, no words could convey an adequate idea of the appearance of an individual under its influence; nor was it in the least to be wondered at, that in times of ignorance and superstition such a disease should be ascribed to supernatural causes, and the agency of demons. He (Mr. W.) could not refrain from making a few observations on a case of the latter description in a young woman, about twenty years of age. Great excitement, in the first instance, produced the disease, and habit confirmed it. She was well aware when an attack was coming on, by an indescribable sensation, as if something were running into the part about to be attacked; which, in like manner, passed into every joint, not simultaneously, but successively. The severity of the spasm had destroyed the power of her left limb; and in every

respect she appeared to be more like a person who had been struck with lightning, than under the effect of disease. From some cause which he was unable to explain, the ribs on the left side, when the hand was passed over them, rattled as distinctly as if they had been denuded of their muscles; and many of them were so loose as to be moved up and down with facility. Many individuals had been requested to see this case, among whom were several medical men; and they all observed, that nothing short of supernatural interference could sestore her. However, the application of the bath, and other remedies, so effectually relieved her, that in three months' time she was enabled to walk a distance of three miles without the aid of crutches. He would not trespass on their time by relating individual cases in proof of the merits and efficacy of the bath, in the cure of disease; there were others present whose testimony might be to the minds of many more acceptable and more conclusive than his. At the same time, he could not but rejoice that means so simple were likely to prove a universal blessing to mankind; not only in curing, but in preventing disease. The insurance offices asserted, that the longevity of the people in this age was on the increase; while political economists said, that we were overwhelmed with population, and that misery and disease were necessary to cut them off: but neither of those assertions had any foundation in truth. The insurance companies might, from long experience, have become better judges of bodily health, and consequently, select such individuals only as suited their own purposes; but when we found medical writers of every country arriving at a different conclusion, the opinion of the insurance companies was not worth a moment's reflection. Then as to our superabundant population, he had no hesitation in saying, that if the three kingdoms were properly cultivated, they would maintain five times the present number of inhabitants in comfort and affluence. He thought that at least one half of our population were in a state of wretchedness and disease; and this was solely attributable to the shear ignorance of those who pretended to direct and manage our agricultural affairs; he need not adduce a greater proof than the fact that thousands of diseased sheep were daily slaughtered and sold for food. He complained of the difficulty of obtaining wholesome provisions for his patients, particularly the poor; and as he observed a number of the Members of the Corporation of the City present, he would tell them it was their bounden duty to see that the inhabitants were furnished with sound

provisions. Were they to give him five hundred diseased infants, at the breast, he would undertake to cure nearly the whole of them (independent of any medicine being administered to them) simply by dieting the nurses, and a little alterative medicine. If the Lord Mayor and Corporation called on him he would prove his assertion by experiment (and they would if the least spark of the spirit of a Howard was amongst them), not only for the benefit of the present generation, but unnumbered millions yet unborn. Brown, in his dictionary of the Bible, observed that the Jews were of opinion, that to the corruption of milk in the stomachs of infants was owing most of their diseases,—a fact which medical men of the present day had entirely overlooked. He had many children under his care covered with eruptive diseases; and when he considered the ordinary diet prescribed by their medical advisers, viz., mutton chops and porter, it was no matter of surprise that they were thus affected; in such cases he invariably recommended a plan of diet; and with the assistance of a little medicine, not only the eruptive diseases incident to children, but also glandular enlargements, were cured in a few weeks. In conclusion he had only to observe, that upwards of sixty thousand patients had come under his care since the establishment of the baths in 1820; every disease, in every stage of its progress, had been treated by him. In some cases he might have been disappointed, but in no instance had the baths proved injurious; but the general results shewed, beyond the shadow of a doubt, its incalculable blessing to suffering humanity. The greatest physician of modern times had well observed, that if a remedy could be found to act simply on the glandular system, he should consider it as a specific for scrofula; now such a remedy he (Mr. W.) had discovered, and the result proved the correctness of the opinion Scrofula and cutaneous diseases of every description yielded to his means of cure; and even cancer, in its incipient or scirrhus stage, had, as yet, been successfully treated, and several in its ulcerated state. But he did not pretend to cure that disease when the secondary symptoms were established; that was to say, when the liver, the glands, and blood-vessels generally, were involved in the disease. His baths were now established in all the principal towns and cities throughout England. He had sold his patent for Staffordshire, Worcestershire, and other places, and for the whole of Ireland. To the medical gentlemen who had adopted his system, he returned his most sincere acknowledgments; and would conclude by observing, that as misery begat

misery, disease would beget disease, and prodigiously increase; health would beget health, and but moderately increase—so said the history of the world.

The Rev. R. Cecil, of Turvey, said he had attended the meeting at the request of Mr. Whitlaw; and though it would have been much more agreeable to his feelings to have heard in silence, he certainly felt called upon to express his sentiments respecting the object of the meeting. Some might think he was out of his proper place; indeed, he had been cautioned not to commit himself, nor to expose his character to animadversion, but he felt solemnly called upon to do what little he could in support of the Institution; and if he could convey that impression to the meeting which he desired, it would be a most powerful impression. He had himself derived great personal benefit from the vapour bath: it was now about seven years since he became acquainted with the system; he was very ill, indeed he had never enjoyed a good state of health from his childhood until he used the vapour bath, which he did for eighteen months, during which period he gradually recovered strength, his health became perfectly established, and he had had no return of illness since. The medical treatment of his family had been conducted upon this plan, and health had been thereby preserved amongst them. He had recommended the plan, and had known instances of great success. He was not in Mr. Whitlaw's secret, but he judged of his plan by its effects. He had been told he was quite under a mistake, and that the whole thing was a mere chimera. He was not infallible, and he hoped if he found himself mistaken he should have candour enough to acknowledge it. He trusted this system would be extended wider and wider, and he believed it would, not only every year, but every month. He was more and more convinced that the system, in cases where the general treatment of medical practitioners failed, would be found to succeed. He was much struck with the letter from the respectable surgeon at Northampton (*see page* 219), inasmuch as not twelve months ago that gentleman was endeavouring all he could to persuade him that the system was all a delusion, and that in twenty years neither Mr. Whitlaw nor his system would be known or recollected, and yet he was now thanking him for it. He felt bound to assist in promoting the diffusion of health, because that was closely connected with morality and religion, immorality being an enemy to health. The exercise of religious duties would be more regular and spirited when there was a full enjoy-

ment of health. He believed there was a time approaching when religion and happiness would universally prevail, and he regarded Mr. Whitlaw's system as one of the signs of the approach of that time of joy ; it bore very delightfully upon the period when the world should be full of happiness and of the christian religion : though it all originated in, and must be perfected by the blessing of God. Many medical men had contended that Mr. Whitlaw's concealment of the remedy was the device of one who had nothing to bring forward ; if he (Mr. W.) was wrong, he (Mr. C.) was not induced by that to give up the system and its benefits. He thought it clearly fair and just that a man who had spent most of his days, and the prime of his days, in pursuit of knowledge for the public good, and the benefit of the human race, had a strong claim for liberal and generous compensation. He thought also that such a man had a right to consider his own interest before he listened to the cry "throw open your system." He regretted that his memory would not serve to state all the specific cases which had come under his knowledge, but one he would relate :—It was that of a lady whose case was thought perfectly hopeless ; she was so far gone in consumption that she was obliged, though in her bed-chamber, to keep a gauze handkerchief over her face that the air might not approach her lungs ; she had been perfectly restored. It was his conviction that the more the system became known the more it would be valued. He trusted there would be more conversions to his opinion, and as striking as that of the gentleman at Northampton. He rejoiced, on the part of the poor, that such an Institution was in existence ; of themselves, they could not obtain this invaluable remedy : and he was highly delighted that charity had extended her aid to make up their deficiencies. He trusted this meeting would give a new impulse to the benevolent. He concluded by repeating his sense of the worth of the system, and by moving—"That the Report be received."

Mr. Whitlaw, in reply to the observations of the Rev. R. Cecil, said, he knew very well that medical men generally were under the impression that all his remedies were secrets, kept purposely so for the sake of enhancing his own gain ; but he wished to undeceive them. He positively denied the charge ; as it was not one remedy alone he made use of, as medicine and medication, but at least one hundred and fifty, embracing a materia medica, from which he selected such remedies as long experience had proved to be best adapted for alleviating and curing disease. It was

true that many of the most valuable medicines made use of by him were secrets, so far as their combinations were concerned; but this was subject to no rule,—he had no panacea; the symptoms of a disease were his only guide in forming a diagnosis; and in applying the means of relief, he had reason and experience to direct him in the treatment. Where, he would ask, was the medical man who had not certain secret prescriptions of his own? After long years of travel over half the world, in pursuit of knowledge—after devoting the prime of his life, spending his money, and sacrificing every thing society held most dear in acquiring his information,—was it to be expected that he should at once, and without compensation, surrender every thing to men who had neither the candour to acknowledge, nor the liberality to reward him for the discoveries he had made. Every plant, its class, its specific action on the body, and the disease for which it might be applied, were published by him. But the physician unacquainted with the knowledge of plants, could never properly judge of their powers; and therefore his translation of the materia medica of Linnæus was of little use to men who were destitute of the knowledge of botany;—a science which he considered the very foundation of a medical education. His medicines were, in every respect, superior to those made use of by medical men, inasmuch as he had them collected from their proper locality, and at the proper period of the elaboration of the sap; and afterwards dried, pressed, and packed, on a plan so as to preserve their medicinal powers for any length of time. In his (Mr. W.'s) work entitled "New Medical Discoveries," they would find every remedy he made use of; but experience and judgment were necessary in selecting and applying them effectually. He had dispensed both with mineral and narcotic poisons of all descriptions. He had reduced the healing art to that state of simplicity, that any of the medicines which he administered might be given to the most delicate constitution without the least danger. Any of his friends present were at full liberty to invite medical men to inspect the establishment: he would never suffer a charge of secrecy to be laid against him. He had visited Woolwich, where the soldiers were dying in great numbers from the improper food they had taken; and being anxious to establish the baths for their benefit, he made use of every argument in his power to induce the medical officers to inspect his mode of treatment; but they would not do so, though he offered to tell them all his remedies as far as it was in his power.

The medical officers said they could not be administered without the sanction of the Colleges of Surgeons and Physicians, and were recommended by them. He certainly deserved some compensation for his patent, for he had travelled many thousands of miles, and incurred heavy expenses to procure his information,—but he would not make that an obstacle, so far as the benefits of the poor were concerned; medical men were quite welcome to come and gain any information which it was in his power to impart. For seven years the Committee of the Bayswater Asylum, with the late DUKE of YORK as their patron, had invited the medical men to investigate his practice; but the strongest proofs could not compel them to believe against their interest. He wished the same spirit prevailed among the faculty of England which animated Dr. Ireland, of New York,—whose name would be handed down with admiration to the latest posterity. Having thrown off the trammels of legitimate authority, he (Dr. Ireland) was called before the dignitaries of New York, and was informed by them, that he must give up the use of the vapour bath. He however told them, he would not relinquish it for all the aggregate knowledge they possessed. And why? Because it was so beneficial to those who entrusted their lives to his care. Seeing he was so resolute, they did not do as they had before threatened,—stigmatize him as a quack. He had letters from that gentleman, stating, that in twenty-six months he had given twenty thousand baths. Almost every variety of disease was now cured in New York, by means of the vapour bath; and the most efficient plans had been adopted for the improvement of the health of society at large. He could not conclude without pointing out the superior advantages of the vapour baths, established under his directions, to those of any other hitherto known in any age or country; and in saying this, he would appeal directly to the public in general, and more particularly to the medical profession. If there ever was a time when the use of the bath was indispensable, that time was the present, when so great a number of frequent diseases were deemed incurable; such as scrofula, cancer, leprosy, and consumption, with a long catalogue of chronic complaints. These were now considered hopeless cases by regular medical practitioners. The bills of mortality, and the extensive ravages made on the constitutions of poor beings, too plainly demonstrate their fatal nature. Yet these results might have been prevented, if the sufferers had been timely brought under the influence of his

baths and practice. In confirmation of these assertions, he would refer his readers to the printed reports from America, giving in detail the experience of medical men of the first eminence in the profession. As it regarded the effects of his bath and practice, the construction of the bath differed very materially from any hitherto invented, being a medium between steam heat and fire heat, which could at pleasure be heightened or lowered. It would hold in suspension the more insoluble properties of plants, even rosin: it passed through a metal plate perforated with small holes; and being properly diluted with air, was inhaled by the lungs of the patient, passed into the circulation, and being highly charged with the various vegetable oils, gums, mucilages, rosins, aromas, and all the various gasseous properties of the herbs, produced the most salutary and instantaneous effects on the constitution. It neutralized and carried off by the pores of the skin the noxious gases cooped up in the cellular membranes of the whole body, particularly the exhalent arteries of the skin or follicles immediately under it; producing a ten-fold more safe and beneficial effect than any medicine taken by the stomach. Medicine taken by the stomach mingled with the food, and any acid or acrid fluid or gases that might be in the stomach at the time; too frequently heightening the effects of the medicine to a corrosive poison. No such ill effects had ever been known at any of his establishments, either in England or America, where his baths and medications had been employed; and no poisonous herbs were allowed to be made use of. —He must beg leave to caution his hearers and the public against a set of unprincipled impostors, who, finding the great benefits arising to the afflicted from the use of his baths and system of treatment, had established and advertised baths which they professed to be similar to his, but which were quite the reverse, as they had not the medication—that being supplied by himself to those gentlemen alone who had purchased his patent for the districts where the baths were employed. A list of such places, with the gentlemen's names, would be published for the better protection of the public. He also begged to assure them, that every facility would be given to make known those discoveries that had been, and still were making at his numerous establishments in America, which it would be seen would create a new era in the history of the healing art.

Mr. Cecil rejoiced that the remarks which he had made had elicited so candid and honourable an avowal from Mr. Whitlaw. A month had not elapsed since a medical friend

of his said to him, "Why does not Mr. Whitlaw make his remedies public? We want to know them—we long to know them; but he makes a secret of them, and therefore he is a quack." He (Mr. Cecil) would very soon inform his friend what Mr. Whitlaw had said that day; and he hoped he would shew his sincerity by calling on Mr. Whitlaw, and procuring the information he professed himself so anxious to obtain.

W. Lewis, Esq., Surgeon, Wolverhampton, on seconding the resolution, "That the Report be received," said, That the valuable observations which he had already been enabled to make in support of Mr. Whitlaw's system were so numerous, that he was satisfied he could not better support the cause they had that day met to promote, than by reciting some of the facts that had come under his immediate notice. Scarcely two months had elapsed since he had taken up the system, and it was a pleasing reflection to his mind, that during that short period he had done more good, in several inveterate cases, than he had effected for two years previously. On first adopting the system he was stigmatized as a quack and an impostor, and was told that he would be discountenanced by other regularly educated practitioners: as long, however, as he could confer the benefit upon the community, which he had done for the last two months, by means of this system, he should pay no regard to the countenance or discountenance of medical or non-medical practitioners.—The first case to which he would beg to call the attention of the meeting was the one mentioned in the letter from Mr. Cecil, of Birmingham, which had been under his (Mr. L.'s) care. It would, perhaps, be well if he gave a few additional particulars to those furnished by Mr. Cecil. The little girl was seized six years ago with hæmorrhage from the nose, which was, in his opinion, imprudently stopped, and the consequence of which was *epileptic fits*, so violent that they reduced her to a state of idiotcy. Mr. Cecil mentioned that she was also subject to very violent convulsions, and that when she left him she had four or five attacks daily. He (Mr. L.), however, was now happy to state, that she had not had an attack for several days; that she was able to walk about, and associate with her friends as formerly,—in fact she was in the enjoyment of perfect health.—There was another case, of a similar nature, also shewing the powerful effects of Mr. Whitlaw's system in curing diseases of that description: it occurred in a little boy, who had been so troubled with *epileptic fits* as to be reduced also to a state of idiotcy: that patient was now

in progress of recovery. Having been an eye witness to the efficacy of the baths, in the case of the Rev. Mr. Cook's daughter, he was induced to visit London for the purpose of investigating into Mr. Whitlaw's system, and he found that the most inveterate cases were, not by the means of the bath alone, but the adoption of the whole system, perfectly cured.—There was another case which he was particularly desirous to mention. A young gentleman had placed himself under his care for a white swelling,—*a scrofulous affection of the knee-joint*,—having previously for several months been under the care of the most eminent practitioners, without obtaining any relief. The first time he went into the bath, the swelling was reduced nearly one half in size: on taking several baths, and strictly adhering to the rules of diet, he was perfectly restored. For four months he had been compelled to walk on crutches, but he now dispensed with them, and had not the least appearance of lameness.—The next case that he would mention was one of *disease of the heart*. The man had been under the care of various physicians in Birmingham for the period of fifteen months, during which time he had been incapable of doing any sort of work. He was requested to make some enquiry respecting the vapour baths; the medical gentleman who attended him, previous to his visiting his (Mr. L.'s) place, having given it as his opinion that he would not live seven days. The first time the patient went into the bath he experienced so much relief that he expressed his conviction that two or three baths would cure him; and such was the result—after four baths he was perfectly cured.—This case proved the power which the bath had in some measure towards leading to a correct diagnosis, and detecting the true nature of disease. The disease had been differently stated by two or three eminent physicians who had seen the patient: one had declared that there was ossification, another that there was an enlargement of the heart, and a third that it was pericarditis supervening on an attack of acute rheumatism; it was evident that the latter gentleman was the only one who had formed a correct diagnosis, for had there been any organic disease it could not have been arrested in so short a space of time. It was true that he had only adopted the system a short time, but as far as his experience hitherto went he considered Mr. Whitlaw's system superior to any that had been previously adopted. The next case to which he would refer was one of chorea, or St. Vitus's dance; that case had been under the ordinary treatment for several years, having been under the care of physicians and medical

men previously. She had now been under the treatment of Mr. Whitlaw's system for about four weeks, and was recovered. So violent were her former paroxysms, that it required one or two persons to hold her. The former means of treatment,—which were those usually adopted,—had produced no impression whatever on the disease; but the principles laid down by Mr. Whitlaw, in conjunction with the baths, had, in the short period he had mentioned, restored her to perfect health, so that she was able to go about without any person being able to detect that there was any thing the matter with her. Before he sat down he would just say, as he had reason to believe that there were several medical students present, that he sincerely hoped they would not be induced to forego enquiring into the efficacy of Mr. Whitlaw's plan in consequence of any threats which might be held out by medical practitioners; he had been threatened to be discarded by the profession, and even by the public press had been denounced as an impostor and a quack; but while he continued to effect the good he had already done neither the one nor the other should induce him to alter his determination, unless the parties proved to him that they possessed superior powers of curing disease. He hoped from what he had said that medical men would enquire into the nature of Mr. Whitlaw's treatment, even if they did not adopt it.

The Chairman said, they were all too apt to grow weary in well doing. His name stood on the list of the Committee, but he, for one, had been very deficient in the aid he had rendered the Institution. The object of the next motion was, to obtain six gentlemen to join the Committee, who would zealously promote the objects of the Institution; and as volunteers always acted most vigorously, he hoped that six individuals would step forward and give in their names.

The Rev. W. Henry, of Tooting, said, that although he was in the habit of public speaking, he must confess that he felt considerable diffidence on the present occasion, because there was perhaps scarcely any subject with which he was less acquainted than with medical science. Under these circumstances, he should not attempt to speak as a medical man; being well persuaded, that if he attempted it, he should only betray his total ignorance. He stood up on the present occasion, from a feeling of gratitude to Mr. Whitlaw, who had been the means, as some present knew, under the blessing of God, of restoring to health one of his sons, whom he at one period thought was fast sinking into

the grave. He would not go minutely into the case, as he had already done so at a former meeting which he was privileged to attend. He might, however, briefly state, that his son's disease was the hip-joint complaint; and various protracted methods had been adopted with a view of effecting a cure—but without the slightest success. He had previously been acquainted with Mr. Whitlaw; but from his increasing knowledge of that gentleman, he was induced to enter into a more minute investigation of his system; and the farther he pursued his enquiries, the more he was satisfied that it appeared the most likely plan to lead to the recovery of his son. He accordingly placed him under Mr. Whitlaw's care; and in the course of six weeks, he was restored to him quite well and sound, and had been so ever since. Three years had subsequently elapsed, and he was now a stout, healthy boy, attending school. This circumstance confirmed him in the good opinion he had previously entertained respecting Mr. Whitlaw's method of treatment; and about eight months ago, when on a visit to Scotland, he met with a young friend and relative afflicted with the same complaint. He mentioned the case of his son to the parents; at the same time stating his conviction, that Mr. Whitlaw would be able to effect a cure. Every usual means had been attempted to remove the complaint in the case of his friend, as well as his son, but without effect. He proposed to bring his friend with him to London, and place her under Mr. Whitlaw's care; to which the parents consented. He accordingly brought her to London about six months ago; and after being with Mr. Whitlaw five weeks, she returned to his (Mr. Henry's) house quite well. No symptoms of the complaint now remained. He had spoken to many of his friends of the superior efficacy of Mr. Whitlaw's treatment, and they had thereby been induced to avail themselves of it; and he was happy to be able to say, that there had not a single case occurred in which he had not received the thanks of his friends for the benefit they had obtained. Several of them had been troubled with obstinate chronic affections; but they had yielded to Mr. Whitlaw's treatment. He had also had an opportunity of examining Mr. Whitlaw's patients at the vapour bath establishment, and of making enquiries of them relating to their several cases; and though, as he had already said, he would not enter into them upon the principles of medical science; yet, looking at the cases with the eye of common sense, and calmly considering the statements of the patients themselves, he was firmly persuaded, that

Mr. Whitlaw's treatment was attended with peculiar efficacy. He would not say, that the baths would cure all diseases—that would be absurd; but he was satisfied, that it would cure many which had baffled the skill of other medical gentlemen, who had attained distinguished eminence, and were justly considered at the top of their profession. He was perfectly satisfied with the cases which he had examined on this point. Another circumstance which had occurred to his mind relative to Mr. Whitlaw's plan, was, its perfect safety. There appeared to be no risk at all connected with it. One consideration that induced him (Mr. H.) to place his son under his (Mr. W.'s) care was, that having been two years under a different mode of treatment, namely, bleeding, blistering, and other measures that seemed to be exhausting him, and reducing him to a mere skeleton; he was satisfied that, if the local complaint were not removed by Mr. Whitlaw, his general health would be so far improved, as to prepare him for submitting—if it should be necessary—to any other plan of treatment that might be deemed requisite. He had many opportunities of seeing the influence of the baths in restoring general health, and in imparting increased tone and vigour to debilitated and weakened organs. This he thought was a strong recommendation of the system. Another very peculiar characteristic of Mr. Whitlaw's plan was, the speed with which the cures were effected. In the case of his son he consulted with several eminent physicians; the lad was examined by the medical faculty of Greenwich, and from all that he (Mr. H.) could ascertain, it appeared that a cure could not possibly be expected in less than ten or twelve months; and from the great debility of his system, and the constant drains that were being made upon it, he did not conceive it possible that he could survive that time. Under Mr. Whitlaw, however, he was, as he had already stated, cured in six weeks. He knew that the plan was expensive, and thought it would be very desirable if possible to make a reduction: not that he meant to insinuate that Mr. Whitlaw overcharged, for he believed he was an honest Scotchman; but when they took into consideration the rapidity with which a cure was brought about, he was sure the expenses were far less than those of ordinary practice. Had his son lingered on for ten months, the bill for physicking, leeching, and so on, would have exceeded three times the amount of Mr. Whitlaw's charges; and therefore, upon the whole, he considered the balance in Mr. Whitlaw's favour. Under all the circumstances, he could come to no other conclusion,

than that Mr. Whitlaw was a great benefactor to the human race, and that the system would live and flourish long after its founder had crumbled into dust. Unlike the system of quackery which had been carried on in every age, it courted publicity; and the more it was scrutinized, the stronger did its claims appear. It must live triumphant over every prejudice; and though every family must have an attachment to its own medical attendant, yet he hailed the dawn of that period, when medical men should themselves carry it into operation. Once more, then, he would bear his distinct and decided testimony in favour of the system; and would conclude by stating his conviction, that it would impart the highest satisfaction to those ladies and gentlemen who contributed to the support of this Establishment, to visit it and hear the gratitude expressed by the poor victims of disease, who seemed to have been snatched from a premature grave, and restored to the enjoyment of health and the comforts of life. He begged leave to move the resolution,—"That six additional Members be added to the Committee."

The Rev. A. Fletcher, A.M., rose to second the resolution.—It was scarcely necessary, he said, that he should do more than second the motion. He was at a loss to know what line of argument to adopt on the present occasion, after so much convincing matter had been submitted to the attention of that intelligent meeting. Was it necessary for him to endeavour to prove the excellency of the medicated vapour bath? It was not necessary: for that was fully established. Was it necessary for him to prove the relief it had afforded by the means which had been adopted? That was also unnecessary: for they had numerous living witnesses now before them, who had delivered their respective testimony with the greatest propriety, and in the most convincing manner. However, he would not sit down without making a remark or two; lest it should be imagined that he had grown indifferent to this great and good cause. There were several circumstances of an encouraging nature connected with the present meeting; and the first which naturally occurred to his mind had reference to their Chairman. He spoke not of that gentleman being a respectable citizen, or a member of the Corporation of the City of London, or a gentleman devoted to acts of public benevolence and extensive usefulness—these were all pleasing circumstances: but what was more particularly encouraging was, that he was himself one of the living trophies of the astonishing discoveries which Mr. Whitlaw had made. The intelligent Chairman had himself stated to the meeting, that had it not

been for the medicated vapour bath, in connection with other means pointed out by Mr. Whitlaw, there was no human probability that at the present time he would have been alive; or if alive, he would only have been dragging out a miserable existence. There was another encouraging circumstance, and that was, the character of the meeting itself. How would they have been struck to have witnessed an assembly of military patriots, who had distinguished themselves by remarkable achievements for the benefit of mankind? They had no opportunity of meeting such an assembly; but on the present occasion, he believed, not merely from the countenances of those before him, but from the nature of the object which had assembled them together, that this was a meeting composed of *merciful* individuals. He was sure that a more exalted, and a more divine-like feeling, never could influence intelligent beings, than the feeling of mercy; and they were that day convened to apply all the means within their reach for the relief of the suffering poor. There was one thing he must advert to in connection with the office of the ministry:—it was pleasing to see several then present, who were engaged as public instructors of a portion of the community. Let it be recollected, that the great Founder of their faith was not only their Saviour, but their exemplar. He engaged while he tabernacled on earth, in two employments: the one was to instruct, and the other to relieve suffering humanity. It was true, he performed his miracles to substantiate the truth of his mission; but that was not the only reason why the Lord Jesus Christ relieved the miseries of the afflicted and the dying. He engaged in the most laborious undertakings for the purpose of relieving a suffering race; the principle from which he acted, being an unbounded delight —peculiar to Divinity, and wonderfully diffused through the humanity which he took into connection with himself: an unbounded delight in affording relief to a suffering species. Having stated thus much, he would just advert for a moment or two to Mr. Whitlaw. "Who is Mr. Whitlaw?"—was no doubt a question which would be put by many—"whose name has excited so much attention." With regard to that gentleman, he would briefly remark, that he was introduced to him (Mr.F.) and to Mr. Colquhoun, the late magistrate, about fifteen or sixteen years since, by letters from the late Rev. Dr. Mason, of New York. These letters were of a description the most satisfactory; and he (Mr. F.) was happy to say, that he was one of the two individuals to whom that benevolent and scientific gentleman

was introduced: and, though now in his presence, he must say, that he (Mr. W.) possessed a most extensive knowledge of the vegetable kingdom, and ranked among the first physiological botanists now in Europe. Let it be remembered, that however enthusiastic Mr. Whitlaw might appear in promoting the great object in which he was engaged, he was sustained by knowledge. He possessed an extensive knowledge of the subject which had engaged his attention: he possessed an extensive knowledge of the vegetable kingdom itself in all its multitudinous varieties; but, above all, he possessed an extensive knowledge of those simple, but effectual means, which were required to afford relief to the suffering. Take one single department, and it would be found, that even the regimen which Mr. Whitlaw laid down, abstracted from all the rest of his system, was an immense blessing to the human race. He (Mr. F.) sincerely wished that Mr. Whitlaw had an opportunity afforded him of delivering lectures to the agricultural portion of the community. He was satisfied, that if the cultivators of the soil would take the correct philosophical plans of agricultural management which Mr. Whitlaw had laid down, the period would not be far distant when the most wholesome food would be exhibited in the various markets of this country; and a great proportion of that disease chased out of society, which was now making such dreadful ravages in the great cities and populous towns of the united empire. Having stated so much on these points, he would sit down by adverting to two or three cases which had come under his own immediate observation. He (Mr. F.) had been connected with the Committee for managing the Institution at Bayswater, from its first commencement. In consequence, however, of the great expenses unavoidably connected with that Institution, it was found impossible to carry it on; and it was determined to form another society of a similar nature, but calculated still more widely to diffuse the benefits which Mr. Whitlaw's system was capable of conferring. That society was formed twelve months ago, in the vicinity of Mr Whitlaw's residence; and the meeting had already heard the number of patients admitted, and the result of the cases. In the present meeting there were many ladies, and they knew what it was to cherish feelings of compassion; and therefore they would be well able to appreciate the blessings which had been conferred. He had himself recommended several objects to this Institution, who were afflicted with such loathsome diseases, that he had felt uncomfortable the whole of the

day after he had inspected them. Among other patients whom he had recommended, was a girl fifteen or sixteen years of age: her mother stated, that her head was in such a state that it was frightful to look upon it. He (Mr. F.) went to the Establishment, in the hope of being able to overcome his aversion to see these maladies. The state of the girl's head was such, that of all the diseases which he had ever been called to witness, he never before had seen such an exhibition. The whole surface of her head was one clotted mass of foul, corrupt, conglomerated matter. She had been under the care of several medical gentlemen for ten years, but without the least benefit; and had also been in several hospitals, without obtaining any relief. To his great astonishment, however, after having taken a few baths, she was presented to him perfectly convalescent. Another case to which he would allude, was one of cancer, which occurred in a woman far advanced in life: she was now nearly restored to health. There was another case which altogether was so interesting, that he could not refrain from alluding to it. Though it was not at all times prudent to mention names, yet he should do so on the present occasion, because the details reflected the highest credit on the gentleman to whom he was about to allude. A member of his congregation was a student at the college at Hackney, under the tutorship of the Rev. Mr. Collison. He was a very intelligent young man, and was formerly one of the sub-secretaries to the Newfoundland School Society, connected with the Church of England. The Rev. Mr. Collison wrote to him (Mr. F.) to state that young Seabourne was in such a situation, that it was impossible he could remain in the college. He had lately become the subject of epileptic fits; the paroxysms of which were so violent, that it required four or six students to hold him: that it would be necessary to take lodgings for him; for during the fit, he completely interrupted the whole of the students from their pursuits. Mr. Collison also suggested, that it would be advisable to apply to a medical man, to see if relief could be obtained. Lodgings were procured for him, and a letter of introduction given to Mr. Whitlaw. After taking the baths two or three weeks, he was completely restored. He was now pursuing his studies, in answer to the fervent prayers of his friends, and by the blessing of God resting upon the simple means which Mr. Whitlaw was so successfully employing for the benefit of mankind.

The motion was then put to the meeting, and carried unanimously.

Mr. Whitlaw wished it to be recollected that the baths were unattended with any expense to the patients, the expenses being defrayed by subscriptions and donations; he wished that, in the place of giving two thousand baths during the first twelve months, they had administered five thousand: the greater the number of the subscribers the less would be the expense of the bath in each case. Five thousand baths given in one year, would reduce the expense to 1s. 9d., including medicine, in each case.

A lady enquired what rules were adopted with regard to the diet of the poor.

Mr. Whitlaw replied that printed instructions were given to them; they were recommended to partake of farinaceous articles, fish, and beef. The mutton had lately been so unsound that it produced the most appalling diseases, and therefore he strenuously recommended that it should not be eaten. It was, however, to be remembered, that the majority of the objects of this charity consisted of individuals who had been reduced from affluence to poverty, and were, consequently, though poor, yet intelligent people: hence it was only necessary to apprize them of what was injurious for them to eat, in order to procure a strict attention to diet; if, however, they violated the rules, the effect was immediately visible, and he could detect it by the papillæ of the tongue and appearance of the countenance. There was another circumstance which he could not refer to without considerable pain, and that was the great extent to which adulteration was carried on at the present day, in various articles of food, amongst which flour stood pre-eminently on the list: this circumstance could not be too strongly enforced on the meeting.

David Winzar, Esq., Surgeon, Salisbury, said he must apologize for trespassing on the attention of the meeting at that late period of the day, but as a professional man he could not withhold his unqualified approbation of the mode of treatment which had been introduced by Mr. Whitlaw; it would have been unjust,—it would have been unkind,—it would have been unmanly for him to have withdrawn from the room without making the avowal which he had now done. In the month of July last he opened the baths at Salisbury, and subsequently to that period had administered to one hundred persons one thousand and sixty-seven baths. He declared, in the presence of that assembly, that in no instance had he been discouraged, but on the contrary, he had in every case had the most positive proof, leading him to the strongest conviction of the utility of the baths,

as a powerful auxiliary to medical practice. He did not go all the lengths of some friends to the baths, but as a powerful auxiliary to medical practice, he had no hesitation in giving them his unqualified approbation. He had many cases that he could bring forward, but at that late hour of the day he thought it would be better to refrain. He would say, with his professional brother, that he had met with great opposition: he (Mr. W.) had also been called a quack, but it would not deter him from going forward with the plans he had put into operation. He had practised in Salisbury for twenty-five years, but when his attention was directed to this system, he investigated it, he made every enquiry respecting it; and acting upon the conviction which those investigations produced in his mind, he engaged in the undertaking. As far as prejudice went in Salisbury he was happy to say, that those who stood highest in his profession were beginning to yield; and lately Dr. Fowler, a man who ranked at the very height of his profession, had given him (Mr. W.) his unqualified approbation, and had sent his own family to the baths. He concurred with Mr. Lewis in saying, that he had done more good, in some cases, by the baths than by the ordinary mode of treatment. He was determined to persevere, for he saw that his suffering fellow-creatures were benefited by it. The baths, perhaps, might not be so profitable as ordinary practice; but he was satisfied, that he had done good in many cases where relief could not otherwise have been afforded. There was, however, one case to which he must beg leave to allude. It occurred in a woman who came from Stockbridge, eighteen miles from Salisbury, with paralysis, under which she had been labouring two years. She came to his house attended by her sister, her left arm being entirely useless. On taking the second bath, she exclaimed to her sister who was standing by, "O sister, I can move my arm;" and she moved about the furniture of the bath. On the following day, he (Mr. W.) was told by the sister, that she was able to lift her fork; though for two years she had been unable to feed herself. He was not quite satisfied about it, and thought it a mere report; but he called upon her the third day, when he saw her feeding herself. After taking the baths for three or four weeks, she called upon him, and paid the usual fees; and was able to walk, talk, and make use of her arm.—There was another case equally interesting. A very fine young man was brought to him last September, labouring under a scrofulous affection of the hip-joint; which was so severe, that he was compelled

to walk on crutches, and was helped into the bath by his (Mr. W.'s) own son. In six weeks he threw away one crutch, and in two months he threw away the other. He followed him yesterday in the streets of Salisbury, and could scarcely perceive that he was lame. He was now in perfect health.—Another case was that of an old man, who suffered under pulmonary and cutaneous diseases,—two most severe affections. He had often seen him stop in the streets and gasp for breath; the discharge from his lungs being of the most offensive nature. After taking six baths he informed him (Mr. W.) that he had lain upon his left side, after being unable to do so for eleven years until the previous night. Before taking the baths he was like a leprous person from head to foot, and covered in such a manner that it was quite offensive to him (Mr. W.) when he assisted him to the bath.—In justice to Mr. Whitlaw he ought to add, that he (Mr. Winzar) had himself been almost a martyr to the gout once a year. An acute attack came on some weeks ago, when he instantly took a bath, and had not had a return since. As a man of justice, as a man of honour, and as a professional man, he was bound to give his support to the baths; and he was determined to persevere in their employment.

The Chairman hoped it was an uncharitable remark which appeared in the *Lancet*, ascribing the opposition of medical men to the vapour baths to pecuniary motives. The writer said, "These gentlemen know very well, that, if the vapour bath were generally in a course of application, nine-tenths of the medical men might be beneficially dispensed with." He sincerely hoped that was not the true reason why medical men set their faces against this efficacious system, and did all in their power to cry it down.—The volunteers which they wanted were of the following description: men who would work on the Committee, men who would subscribe to its funds, and men who would mention wherever they went this excellent remedy, and combat any prejudices that were adduced against it. There was, however, one description of volunteers who could aid the cause more than all the rest; and these were the ministers of religion of every denomination. He need not suggest to them that, besides instructing the ignorant in the great truths necessary to salvation, it was their duty—and in discharging it they were only imitating their Divine Master—to do all the possible good they could in temporal concerns. Without health every other blessing was unavailing to make mankind happy; and the ministers of religion, by

recommending this system, might be the means of counteracting disease to a great extent; and thus confer an invaluable boon on society at large. He was well aware of their pressing engagements, and of the numerous demands made upon them; but if they could occasionally devote a service to a collection on behalf of the society, the happiest results would ensue.

Mr. Whitlaw was happy to announce to the Meeting, that their worthy Chairman, in addition to being an annual subscriber, had given a donation of ten pounds. He was highly gratified at the hint just dropped by the Chairman relative to collections on behalf of the Institution. If the hint were adopted, it would enable the Committee to lessen, in a great measure, the accumulated mass of misery in the metropolis. He would embrace that opportunity of saying a few words on behalf of the medical practitioners of the metropolis:—however just the remarks of the *Lancet* might be with regard to many medical men, they were not applicable to the whole of that body. The late Dr. Hamilton was a strenuous advocate for the vapour bath. He stated that he knew of no remedy equal to it in the cure of cancer, scrofula, and bronchitis; and was regularly in the habit of sending his patients to the baths. Among the gentlemen, who with distinguished liberality had given the baths their support, were Mr. Travers, Mr. Cline, Mr. Abernethy, Mr. Guthrie, Mr. Waller, Mr. Brodie, and Dr. Blundell. The reason why the medical profession generally did not adopt the baths was simply this,—they were bound down by unlawful trammels, and dare not employ them. He (Mr. W.) believed, that a hundred medical men were to be found in the metropolis, who would instantly give them their support if they dare.

The Rev. Mr. Adams, understanding that there were medical students in the room, availed himself of that opportunity of suggesting to them, that should any of them be called to practice in the West Indies, they might find the vapour baths of the most eminent service. Having resided there, he knew something of the dreadful epidemics which occasionally visited those Islands; and which, if relief was not instantly afforded, speedily carried off the unfortunate victims. Even simple warm baths had in many instances been instrumental in saving life; and he had himself once experienced their efficacy in what was called the bone-ache fever.

Mr. Crawford next addressed the meeting, and stated, that having attended a similar institution to this, and seen

the beneficial effects produced, he could not in justice withdraw from the present meeting without making a few remarks. He had entered upon the investigation, he could truly say, as he had entered upon every other investigation, whether scientific or legal, with an earnest wish to arrive at truth. He believed that if all those who entered upon an investigation, could lay aside all prejudice arising from preconceived opinions, or as was frequently the case, from a clashing of interests, they would arrive at conclusions,—whether the subject related to the pretensions of Mr. Whitlaw, or any other important matter,—the very reverse of those to which they came. He recollected a physician once saying to him, that although Mr. Whitlaw had not been educated at Cambridge or Oxford, or taken out a degree at any of the Scotch Universities, he was nevertheless all-powerful in means: in the means which he possessed of doing good in a variety of complaints which baffled the skill of the most eminent physicians. The testimony which Mr. Winzar had that day given, was no less honourable to himself than satisfactory, as it regarded the general efficacy of Mr. Whitlaw's system. The testimony of a medical man, who had been twenty-five years engaged in a most extensive practice, was more powerful than the united evidence of all the non-medical persons in that room. If he understood it correctly, the article to which reference had been made in the *Lancet*, was levelled against those medical men who rejected Mr. Whitlaw's system, not because they disapprove of it, but because it clashed with their interests; and he must say, that if that were the case, he thought the editor of that publication had done himself great credit by giving it insertion. It might be urged by medical men,—to take an example,—that a case of scrofula, which had been cured by Mr. Whitlaw, was not, in fact, a case of scrofula, but some other affection which had assumed the appearance of scrofula. The only fair test of the superiority of Mr. Whitlaw's treatment, or that usually adopted, was the following:—Let a medical man of known eminence state the name of any particular functional disease,—organic disease was out of the question,—and if he failed to cure it, let Mr. Whitlaw take it under his care, and see if he could cure it: or let them take two cases of the same disease, equally inveterate, and see which could effect a cure in the shortest time. If Mr. Whitlaw succeeded the best, it would prove to a demonstration, that medical practitioners were without the means which Mr. Whitlaw possessed. He was satisfied from his own investigations, and

the attestations they had that day heard, that if ever there was a period when Mr. Whitlaw would triumph over all opposition, this was that period. The time had now arrived when all pretensions to skill, either in medicine, law, or divinity, which were not based upon a valid foundation, must be proved to be nothing worth; and in proportion as false pretensions to skill in medicine sank, must Mr. Whitlaw's pretensions rise.

A vote of thanks was passed to the Chairman, who briefly acknowledged the compliment, and the meeting separated.

ON

DIET AND REGIMEN, &c.

The principles of diet, as regards health and disease, have been the origin of as much controversy among physicians, as the great doctrine of fever; and notwithstanding many ingenious works have been published on the subject by men of eminence in the profession, yet I defy any person, after perusing the whole of their works, to say what regimen is calculated to prevent or cure disease.

The doctrine of assimilation having led them to believe that substances, however heterogeneous in their nature, were converted by the powers of the gastric juice into one and the same thing, namely chyle; it is no longer a matter of consideration with the physician, what his patient ought to eat or drink: and when the question is asked by the invalid, the invariable answer is, "Oh, you may eat any thing, provided you do it in moderation." But the man who gives such advice, is ignorant of the first principles of his profession: a more fallacious doctrine than this was never propagated; a more destructive one never acted upon. If the body be made up of the substances which we are daily making use of as food, how is it possible that a vigorous and healthy constitution can be reared from noxious and unwholesome aliment? As well might we expect workmen to build a substantial mansion from decayed and rotten materials.

By diet alone, diseases of the most obstinate kind have been cured; and I am convinced, that all our sufferings are in a greatmeasure attributable to our ignorance of the laws of nature.

During the last twenty years of my life, I have wandered much about the world, and studied diseases from actual observation among various nations, and in different climates; and from long experience, and that knowledge of natural things which study and the conversation of great men have given me, I have been induced to believe, that the greater part of our bodily disease is brought on by improper food. This opinion has been more strongly confirmed by my daily experience in the treatment of those

diseases to which the people of England are peculiarly subject, such as scrofula, consumption, leprosy, &c. &c. These disorders are making fearful and rapid strides, so much so, that not a single family may now be considered exempted from their melancholy ravages. The vulgar opinion which condemns vegetables and so highly cries up the use of animal food as most conducive to health, I have ever thought to be ill grounded, and have invariably opposed it. In this opinion I am borne out by the testimony of the most learned and experienced physicians since the days of Pythagoras till the beginning of the seventeenth century. The strong prejudice which existed against the use of animal food in ancient times, arose not from any belief in the doctrine of the transmigration of souls; as we are assured by Laertius, that the sameness of the nature of the soul, was only a pretence for the forbidding the eating of animals. A belief that health formed the principal part or basis of human happiness, induced them to investigate the causes of human suffering, and the most simple means of removing it. They found that diet was the most potent remedy to prevent, remove, or mitigate many of the most violent and obstinate maladies to which mankind are subject. This led them to the study of the vegetable kingdom, as applicable for food or medicine; and experience, joined with sagacious reasoning, led them to choose that diet which enabled them, with a few simple herbs, to remove with ease many infirmities otherwise invincible by human art.

They believed disease to be an adventitious occurrence, and not an inherent principle in our nature; and when it arose in the system, they never dreamed of attributing it to any derangement in the harmonious action of the constituent parts of the body, but to some noxious substance which had been eat or drank. While these pathological views guided them in their treatment, we need not wonder that diseases were few in number, and the cure simple and efficacious. The physician was then a sacred character, and considered as the greatest benefactor of his species. But since the fatal doctrine of vitality and assimilation took possession of the minds of medical men; since they have considered diet a matter of taste instead of principle, and disease an effect without a cause,—disorders have increased beyond calculation: so much so, that their very names have become burthensome to the memory. The treatment is no longer founded on reason and experience, but on specious theories and evasive opinions. The patient places no confidence in the physician, whose practice is as intricate as uncertain;

he looks upon him as the most odious intruder,—a very vulture, whose prey is the physical suffering of his species.

In this treatise I have endeavoured to point out the causes of our misery, and the most obvious means of removing it. In conclusion, I shall make a few practical observations on the different articles made use of as food, by which a person may be guided in selecting such things as are conducive to his bodily welfare; and by the daily observance of which, he may enjoy a good share of health, and seldom stand in need of physic or the physician.

We have the authority of Scripture for asserting, that the proper aliment of man is vegetables: "And God said, Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree in which is the fruit of a tree yielding seed; to you it shall be for meat." This most conclusive evidence needs no comment: and as disease is not mentioned as a part of the curse, we have reason to believe that the antediluvians were strangers to this evil. Such a phenomenon as disease could scarcely exist among a people who lived entirely on vegetable food; consequently, all the individuals made mention of in that period of the world, are said to have died of old age; whereas since the days of Noah, when mankind were permitted to eat animal food, such an occurrence as a man dying of old age, or a natural decay of the bodily functions, does not occur, probably once in half a century.

After the deluge, the Deity having determined to abbreviate the existence of man, granted permission to Noah to kill the inferior animals for his use; and his degenerate descendants have considered their situation as much more fortunate than that of Adam's, even in his state of innocence. But we have no hesitation in replying, that the grant of animal food originated not in any idea of adding to man's enjoyments; for it is well known, that both the stomach and palate become so habituated to almost any kind of diet, as to derive the reverse of gratification from a change; and hence, he who concludes that by the grant of animal food an addition was made to the sensual pleasures of Noah and his sons, assumes as an admitted fact, a matter to which all experience stands opposed. Nothing is more certain, than that animal food is inimical to health; which is evident from its stimulating qualities producing, as it were, a temporary fever after every meal, by which the powers of the constitution are excited into preternatural action, thereby producing an excessive waste of the living principle; and not only so, but from its corruptible qualities, it gives rise

to many fatal diseases; and those who indulge in its use, seldom arrive at an advanced age. Its injurious effects on the mind are equally certain. The Tartars, who live principally on animal food, are cruel and ferocious in their disposition, gloomy and sullen minded, delighting in exterminating wars and plunder: whilst the Brahmins and Hindoos, who live entirely on vegetable aliment, possess a mildness and gentleness of character and disposition, directly the reverse of the Tartar: and I have no doubt, had India possessed a more popular form of government, and a more enlightened priesthood, her people, with minds so fitted for contemplation, would have far outstripped the other nations of the world, in manufactures, and in the arts and sciences. All philosophers have given their testimony in favour of vegetable food, from Pythagoras to Dr. Franklin. Its beneficial influence on the powers of the mind has been experienced by all sedentary and literary men; and as Dr. Cullen justly observes, "Vegetable aliment, as never overdistending the vessels or loading the system, never interrupts the stronger motions of the mind; while the heat, fulness, and weight of animal food, is an enemy to its vigorous effects."

But that which ought to convince every one of the salubrity of a diet consisting almost of vegetables, is the consideration of the dreadful effects of totally abstaining from it, unless it be for a very short time; accounts of which we meet with fully and faithfully recorded in the most interesting and most authentic narrations of human affairs,—wars, sieges of places, long encampments, distant voyages, the peopling of uncultivated and maritime countries, remarkable pestilences, and the lives of illustrious men,—all contribute to prove to any one, who understands the laws of nature, irresistible evidences of the bad and destructive consequences of a diet contrary to that of vegetables. To this cause the memorable plague at Athens was attributed; and indeed, all the other plagues and epidemical distempers, of which we have any faithful accounts, will be found to have originated in a deprivation of vegetable food. The only objections I have ever heard urged against a vegetable diet, is the notion of its inadequacy to the sustenance of the body; but this is merely a tenacious prejudice into which the generality of mankind have fallen, owing to their ignorance of the laws of life and health. A genuine and constant vigour of body is the effect of health, which is much better preserved by an herbaceous, aqueous, sparing, and tender diet, than by one that is fleshy, vinous,

unctious, and hard of digestion; and a healthy body, with a mind clear, and accustomed to suppress dangerous inclinations and to conquer unreasonable passions, produces true valour; which is the reason why many abstemious nations, both ancient and modern, inhabiting mountainous districts of country, and compelled to live chiefly on the productions of the earth, have maintained their independence amidst the fall and degradation of their more luxurious neighbours. So fully were the Romans at one time persuaded of the superior goodness of vegetable diet, that besides the private example of many of their great men, they established laws concerning food; amongst which were the *lex fannia*, and the *lex licinia*, which allowed but very little animal food; and for a period of five hundred years, diseases were banished, along with the physician, from the Roman empire. Nor has our own age been destitute of examples of men, brave from the vigour both of their bodies and minds, who at the same time have been drinkers of water and eaters of vegetables. The great charm in animal food, is the gratification it yields to the sensual desires of the voluptuary; and for this small compensation they willingly sacrifice the calm enjoyments of health for those pleasures, which too frequently end in palsies, in loathsome diseases, in apoplexies, and death.

But, notwithstanding, vegetable diet is not so displeasing to the sense as may be commonly imagined; experience shews us that a person restraining himself for a long time from wine and seasoned meats will acquire a most exquisite delicacy and distinguishing sense of tasting, the nervous papillæ of the tongue and palate being less oppressed, and their actions left more undisturbed than by the pungent spices and gross particles of seasoned animal food; besides, although the sensual pleasure of this diet should really in some degree be diminished in the mere action of eating, such is the influence that health has over all other pleasures, and such the efficacy of vegetables towards the procuring of health and long life, that those small gratifications of the senses should be despised and hated by every rational being that knows how little any real pleasure can be enjoyed without a competent share of health.

A very sensible and amiable lady of my acquaintance was labouring under a malignant disease, and at my recommendation she was induced to live entirely on a vegetable diet, which she continued for upwards of two years, during which time she gradually improved in health. Her disease, which had been pronounced incurable, yielded to this plan

of diet, with the assistance of a little alterative medicine; and she is at this time a living monument of its beneficial effects. Although she now partakes sparingly of animal food, it is more to satisfy her friends than to gratify her own inclination. During that period her delicacy of feeling, acuteness of judgment, and liveliness of disposition was much greater than at present; and her senses became extremely susceptible, so much so as to render it painful for her to remain any length of time in a room with persons perspiring the offensive effluvia of animal food.

Dr. Franklin, in his younger days, lived exclusively on a vegetable diet; as he found his progress in science to be proportionate to that clearness of mind and aptitude of conception, which can only be produced by abstinence from animal food.

Another very striking instance is recorded by Sir John Sinclair, in the case of an eminent physician belonging to the army, who describing his own state, says, "I have wandered a good deal about the world, and never followed any prescribed rule in any thing; my health has been tried in all ways; and by the aid of temperance and hard work, I have worn out two armies in two wars, and probably could wear out another before my period of old age arrives. I eat no animal food, drink no wine or malt liquor, or spirits of any kind; I wear no flannel; and neither regard wind nor rain, heat nor cold when business is in the way." But we need only look at the peasantry of Ireland, who living as they do, chiefly on a vegetable, and, to say the least of it, a very suspicious kind of aliment (I mean the potato), and we shall find them as robust and vigorous a race of men as inherit any portion of the globe. After all that I have said in favour of vegetable aliment, supported as it is by the opinions of the wisest among the ancients, and the most judicious of the modern writers, yet I feel convinced that no means of persuasion of which I am possessed will induce the generality of mankind to alter that mode of diet to which they are wedded by old habits and prejudices. But there is a class for whom these observations are chiefly written, and with whom I trust they will have due weight. To the invalid dragging along a miserable existence, with a constitution broken down by the injudicious use of medicine, or enfeebled by the ravages of disease, to them they are of paramount importance; for if they depend upon the physician's art alone for a restoration to the enjoyment of health, they will go on hoping to the end of the chapter; there is no artificial road to health, medicine will avail

nothing if the patient is in the daily habit of eating and drinking those things that are the primary cause of his disease. By these observations it may be inferred that I wholly condemn the use of animal food; but this is not the case; all I wish to shew is, that it is not necessary to the sustenance of the body, and that its abuse is productive of many fatal disorders. In moderation I believe it admissible into the human economy, and may be, to a certain extent, consistent with health; yet that, for the most part, a small portion of it only is necessary; that the very temperate and sparing use of it is the surest means of preserving health and obtaining long life; whilst the large use of it tends to the production of diseases, and to the aggravation of those that from other causes may incidentally come on.

FRUITS.

Nothing can be more absurd than the notions formed by medical men respecting fruit: because all fruits possess an acid principle, they conclude that they must have qualities in common one with another; but surely no man of common sense will assert, that citric acid and prussic acid differ only in degree and not in quality. Acids are as various in their properties and effects as the fruits in which they are found; and to suppose that they are all useful in quenching thirst, and cooling in their quality, simply because they are acid, and because chemistry has detected no difference, is about as rational a conclusion as that which the celebrated Chaptel arrived at when he concluded cabbage and elder to be one and the same thing, because chemical analysis gave the same result.

Acidity in the stomach being one of the most prominent symptoms of derangement of the digestive organs, invalids should abstain from fruits generally. Much has been said of the danger of eating unripe fruits, and this opinion is certainly well founded: the hard texture of unripe fruits is dissolved with difficulty, they remain therefore long in the stomach, unmixed with other fluids, and consequently acquire a greater degree of acidity, and produce all the disorders that may arise from it in too great an abundance. There are, indeed, stomachs whose gastric juice may obviate all this; but in many cases it will fail, and therefore the taking of unripe fruits into the stomach is always hazardous, and may be exceedingly hurtful.

Stone Fruits—Cherries, Plums, Peaches, and Apricots. Few of these fruits come to perfection in this country; and I am inclined to believe that the bad effects attributed to them

arise more from this cause than the unwholsome nature of the fruit. In this country they are commonly and justly supposed to enter more readily into a noxious fermentation, and to produce those consequences of morbid acidity, colic, diarrhœa, &c. The apricot is the least objectionable. Stone fruits frequently give rise to fever, this they do from their indigestible nature; and from the effects they are too frequently seen to produce, we may conclude that unless they are eaten in moderation, and at a proper season, they are by no means salutary.

Apples and Pears.—Being seldom ripened in this climate, the firmness of their texture renders them of slow dissolution; and it is no uncommon thing to have them brought up again by eructation, in the same masses they had been swallowed, and that even after two days. Apples should not be eaten after fish; and they are sure to disagree with those whose digestion is not perfectly good. Many fruits, otherwise unsafe, are improved by baking; particularly the apple and pear, which may be cooked in a variety of ways. The pastry should be avoided, as it absorbs all the noxious gases arising from whatever fruits are baked: and the same observations hold good in respect to meat pies; should the meat be unsound, the pie-crust is converted almost into a poison; much of its bad effects are justly attributed to the butter made use of; but still more should be ascribed to the cause I have now mentioned.

Orange and Lemon.—These fruits differ from each other in the quantity of acid and sugar, but their essential properties are alike. Oranges, in moderation, are cooling and wholesome; with some stomachs they certainly disagree; but even in acidity of the stomach and dyspepsia, I have seen good effects from their use. Lemons contain a very grateful acid, and is considered almost a specific in sea scurvy. It is an excellent corrector of the acrimony necessarily engendered by the use of salt provisions; and being a pure acid, it is a good substitute for vinegar, and less objectionable. These are the virtues of these acids; but it must be observed, that wherever acids can be hurtful, even these, in undue quality, are as readily noxious as any other.

Strawberries, Raspberries, and Blackberries or *Brambleberries*,—are, unquestionably, the finest fruits we are blest with in this country, and may be reckoned the safest of summer fruits; their tender substance is easily dissolved, and persons of delicate constitutions will seldom find them disagree with them. Linnæus found great relief from the

use of strawberries in gout, and considered them almost a specific in that disease.

Currants, *Gooseberries* and *Grapes*—are strictly forbidden. I do not mean to assert that these fruits are decidedly unwholesome, or that to a strong stomach they would be injurious: but I am considering them in regard to their effects on invalids; and no physician, with any knowledge of the stomach, will deny that ill consequences do frequently arise from their use,—as heart-burn, flatulency, &c.

Cranberry.—This fruit, even when ripe, contains a good deal of acidity. The American species contain more saccharine matter, and is more delicate as well as nutritious than the English. The American Indians make great use of it: by drying the berries well, and mixing them with meal of Indian corn, it forms a pleasant and nutritious article of diet, and is well known by the name of whortleberry bread. The fruit is easily digested, and is safer in its preserved than in its recent state.

Plums, *Damsons*, *&c.*—are unwholesome, even when ripe; they frequently produce colic, looseness, cholera, or dysenteric symptoms. Fruits of this description produce extensive and serious mischief to the health of children; gastritis, intestinal irritation, &c., are common effects from eating them; they weaken the powers of digestion, sour and relax the stomach, by which means it becomes a fit nest for insects: and I have little hesitation in saying, that these summer fruits produce more disease and mortality among children, than the common scourges—hooping cough, measles, and small pox.

Children are always sickly during the fruit season, and the deaths greater in proportion at that time: it is a mistaken notion, that the addition of sugar in any way qualifies the excess of acid; on the contrary, it renders it much more violent in its effects.

Dried Grapes, *Raisins*, *Currants*, and *Prunes*—are fruits possessing a laxative property, and are therefore useful as medicine, but decidedly injurious as food; their hard texture and excess of acidity, renders them injurious; and all the bad effects of green fruits are to be apprehended from their use.

I shall not extend the catalogue of fruits further; for although many others might be mentioned, yet as they are not in common use in Britain, I consider it unnecessary to say any thing respecting them; and the only observation I have to make before concluding the subject of fruits, is, an answer to a question which has been frequently asked,

that is, whether fruits are most safely and usefully taken before or after a meal: for it is with such trifling questions as these that medical men delight to amuse themselves; while the more important inquiry of what is wholesome or injurious, is left for the patient to decide, after he has brought on an attack of gout, dyspepsia or colic. Now the answer to the question seems to be very obvious:—Good fruit, in moderation, may be taken at any time, and under any circumstances, with a salutary effect; but when unripe and unwholesome fruit is eaten in any quantity; when it is forced into a stomach already loaded with a plentiful dinner of soup, meat, pudding, and all the items of a luxurious table, there is nothing wonderful in the subsequent intestine war.

Nuts—are little used in this country as articles of diet; but the people inhabiting the Southern parts of Europe, derive their chief sustenance from nuts, especially the chesnut. This fruit contains a good deal of nutritive matter; and when made into bread is an agreeable substitute, and probably little inferior in point of nourishment, to the bread made from wheat flour.

Almonds and *Walnuts*—contain each of them a large proportion of mild oil, and exceedingly nutritious, perhaps more so than any other vegetable aliment; at the same time I must observe, that they are of difficult digestion, lie long in the stomach, and produce much uneasiness there: and from observations I have made, I am inclined to think that the fibrous part of the nut generally passes off in an undigested state.—These remarks equally apply to the *filbert* and *hazel* nut.

The last nut I shall mention is the *cocoa* or *chocolate*, which abounds with nutritive matter, and is in very general use as a beverage; with some stomachs it disagrees; but when it is made weak and well triturated, this inconvenience may be in a great measure obviated.—Chocolate is a wholesome drink, and much to be preferred to tea.

All the nuts I have mentioned contain a considerable quantity of oil, which is much of the same nature in the different kinds I have spoken of. These oils enter largely into the composition of medicines, but are little used in diet.

Oil of olives is more employed in food than all the rest, being used as an article to blend with our regimen. Oils are indispensably necessary to the support of the animal system, which are suited to supply the human body, either as it grows, requiring nourishment, or as upon occasion

of waste, it may require repair; so that among every people known, whether civilized or barbarians, oil is used separately as an article of diet. Oils are taken into the stomach in one shape or other, in almost every thing we eat, and must necessarily form a considerable part of our composition; we should therefore be very careful in choosing it free from rancidity. The olive oil is unquestionably the best suited for the purposes of diet

FARINACEOUS SEEDS, &c.

Are, in general, nutritious; and as such they make the most considerable part of the aliment of men, over almost the whole earth.

Barley, is a very sweet and nutritious grain, and is more readily subjected to vinous fermentation than any other grain; and, therefore, it is the grain from which generally our beers and ales are prepared. But there is another preparation from barley, much more important to the sick man than these, and that is good barley-water. However humble it may appear, it is one of the most valuable remedies with which the medical man is conversant: and, strange to say, that few patients to whom it is ordered know how to prepare this valuable article; so that the physician frequently receives his fee for directing the preparation of this simple drink. I shall give here two receipts, the best with which I am acquainted.—Take two ounces of pearl-barley, wash it clean with cold water, put it into half a pint of boiling water, and let it boil for five minutes; pour off this water and add to it two quarts of boiling water, boil it to two pints, and strain it.

The above is simply barley-water: to a quart of this is frequently added, two ounces of figs, sliced; two ounces of raisins, stoned; half an ounce of liquorice-root, sliced; and a pint of water. Boil until it is reduced to a quart, and strain.

These drinks are intended to assuage thirst in ardent fevers, and inflammatory disorders; for which plenty of mild diluting liquor is one of the principal remedies; and if not suggested by the medical attendant, is frequently demanded by honest instinct in terms too plain to be misunderstood. The stomach sympathizes with every fibre of the human frame, and no part of it can be distressed without, in some degree, offending the stomach; therefore, it is of the utmost importance to sooth this grand organ, by rendering every thing we offer to it as agreeable as the nature of the case will admit of. The barley-water prepared

according to the second receipt, will be received with pleasure by the most delicate stomach. Barley may be cooked in a variety of ways, and is one of the mildest and most nourishing articles of diet.

Oats.—The nourishing quality of oats, both with respect to man and brutes, is in this country well known. With respect to oatmeal, the people of England seem to have fallen into an egregious error respecting its qualities; from its producing in some a sensation of heart-burn, or heat at stomach, they have condemned it as heating; and from a mistake with regard to the nature of diseases, have supposed it to give rise to cutaneous affections—not more frequent in Scotland, than in other countries; and which indeed arise from no particular aliment, but always from a contagion, communicated from one person to another. Besides, the most eminent French physicians speak of oatmeal as cooling, and consequently prescribe it in fevers; and the inhabitants of the East and West Indies prefer it to arrow-root, when labouring under inflammatory disorders. Oatmeal, in its sound state, is entirely without bitterness; but that which is generally sold in London being exposed to the impure air of the city, is dangerous to use; indeed, one of my patients nearly lost his life in consequence of eating gruel made of it. Though oats be the food of horses in England, yet the people in Scotland live principally upon it; and in no country in Europe do we find a more healthy and vigorous race of men; and not only so, but their intellectual powers have excelled in, and improved every department of human science; and the robust peasantry of Scotland have formed the phalanx of the British army in every battle-field. Oatmeal-porridge is the best food for children; and, as an old author has justly observed, "It is the king of spoon-meats, and the queen of soups, and gratifies nature beyond all others." As gruel forms a useful and mild diluent drink in a great variety of diseases, to secure the excellence of this valuable article I will give a receipt for preparing it:—Take a table spoonful of oatmeal, mix well in three table spoonsful of cold water; have ready in a stew-pan a pint of boiling water, pour this by degrees to the oatmeal you have mixed; return it into the stew-pan, set it on the fire, and let it boil for five minutes, stirring it all the time to prevent the oatmeal from burning at the bottom of the stew-pan: skim and strain it through a hair sieve.

Wheat—This is a farinaceous grain, from which the principal vegetable aliment of the inhabitants of Europe is

derived. There is no objection to the use of bread, save and except in the nefarious practices of the miller and baker. Bread mixed with a certain portion of bran is always to be preferred to that which is made of the pure flour, as the latter is apt to produce constipation, whilst the former promotes the peristaltic motion of the intestines, and obviates the necessity of aperient medicine.

Rye—is a grain inferior in many respects to wheat, but sufficiently nutritive and wholesome, as its daily use among the nations of the Northern countries of the Continent abundantly prove. It is little employed as an aliment with us, and its cultivation is hardly deserving of encouragement, as it is so liable to be diseased by the depredations of an insect. A black morbid excrescence, curved like the spur of a fowl, is frequently observed on the spikes of rye; this is called the ergot of rye; and when powdered and mixed with rye flour, and taken into the stomach, its effects are dreadful: unquenchable thirst, intoxication, extreme languor, succeeded with violent convulsions, livid eruptions, and cutaneous ulcerations, take place from its poisonous effects. (See *New Medical Discoveries.)*

Rice—is much used in eastern countries, and answers the same purposes as bread with us; and from the testimony of all Asia, and the Southern parts of America, I consider rice more nourishing than any other grain: it furnishes the purest and most wholesome article of diet; nor is it disposed to sour or ferment in the stomach. Many persons are afraid to use it from a mistaken notion that it is astringent; but this opinion is groundless, as it possesses no such quality; and if ever it has been found useful in diarrhœa it must, as Spielmann properly judges, be owing entirely to its demulcent properties: hence rice-water, called *conjee* in India, is of great service in looseness of the bowels, its mild mucilage protecting the intestines from acrid fluids. As a proof of the nutritious quality of rice I will just mention that the Afghans, a people inhabiting the borders of the Red Sea, live entirely on rice and milk; and these men are capable of carrying loads four or five times heavier than any of the common porters in London, who live principally on beer, animal food, and bread.

The last, but probably the most important grain I shall mention, is the *maiz*, or *Indian corn*. As no other of this family of plants can be cultivated through so great a geographical range, so it is the most valuable of them all. The nutritive qualities exceed those of wheat; and experience has fully proved that negroes on the plantations

cannot be so well supported upon a given quantity of wheaten as of Indian bread. The meal of all the varieties has a marked sweetness. One species, called sweet corn, is well adapted to make puddings without the addition of sugar. As Indian corn-meal may be purchased in London, I am surprised that it is not in more general use.

Pease and *Beans*—form a wholesome and nutritious article of food; when young they are light, and easily digested. The quantity of nourishment yielded by them in their ripe state is almost incredible, one pound by weight being equal to three pounds of animal food. Labourers, who live much on this kind of food, are stronger and less subject to diseases than the same class who feed on animal food and wheaten bread. I have found leguminous plants a valuable diet in facilitating the cure of disease: they contain an amazing quantity of oil, which imparts strength to the solids and richness to the impoverished fluids of the body. Persons labouring under diseases arising from excess of acidity in the system, should live freely on leguminous food; and children in particular, who are afflicted with scrofula, or other diseases arising from a scrofulous constitution, as rickets, &c. For delicate persons it is better to give them in their green state; and when boiled and eaten with mint their flatulent effects are in a great measure counteracted. The quantity taken at first should be small, and gradually increased. Though pease contain a considerable quantity of fixed air, and for this reason medical men condemn their use, yet I am persuaded from experience that they are better calculated to remove flatulency and acidity in the stomach, than any other species of food. Were persons who are subject to these troublesome symptoms to immerse a quantity of grey pease in cold water, until they are swoln near to bursting, and afterwards parch them in a frying-pan in the same manner as coffee is roasted, and partake of them at any time of the day, but particularly after dinner, they would derive considerable benefit; in this way they prove an excellent anti-acid.

Sago is a pure, mild, mucilaginous substance, highly nutritious. The Japanese set great value upon it; and in some parts of India the inhabitants use it as their chief food. It is neither acescent nor flatulent: and persons afflicted with indigestion will find it sit light on their stomachs.

Tapioca—is another nutritious article, of the same nature as the above; and for weak persons it is justly esteemed an excellent diet.

Arrow-root—contains in a small bulk a great proportion

of nourishment. Boiled in water or milk it forms a fine jelly, well adapted for invalids and children.

VEGETABLES.

Green Pease, *French* and *Windsor Beans*—are among the best vegetables we have in this country. The French and Windsor beans have of late years come into very general use, and may he considered a valuable addition to our aliment. Persons who cannot eat green pease, in consequence of the weakness of their stomachs, will find these an excellent substitute, being less flatulent than the other legumina.

Cabbage—is an excellent vegetable; but in order to render them agreeable and digestible, cabbages should be boiled in two waters; that is, when they are half done to take them out and put them directly into another saucepan of boiling water; by which means the offensive oil is removed, which gives to cabbage-water the disagreeable smell. The sour crout is prepared from the cabbage, which forms so useful an article to sailors on long voyages, as a preventive of sea-scurvy. To persons afflicted with cutaneous eruptions, I would recommend them to take the sound part of the cabbage, and cut it very small, mix it up with olive oil, and a little lemon acid; this may be eat daily as a sallad: I have recommended it in many cases with a good effect.

Cauliflower—is a delicious article of food, and more nutritious than any other species of cabbage.

It is not necessary to say any thing in recommendation of *Brocolo* and *Scotch-kale*, as they are both in common use, and are wholesome and agreeable articles of diet.

Spinach—contains very little nourishment; but as it is a vegetable of easy digestion, and possesses medicinal properties of a laxative, diuretic and cooling nature, I would therefore recommend its use generally.

Turnip—is a well known esculent root, furnishing a considerable portion of nutriment, as is evinced by cattle feeding upon them becoming healthy and fat. Turnips should be well boiled, and the water pressed out of them. They are also a gentle laxative and diuretic.

Beet-root—contains more saccharine matter than any other esculent root, consequently it must be more nourishing; it is easily digested, and does not produce flatulency. In the winter season this root is in its highest state of perfection, and forms an agreeable substitute for other vegetables. It is also considered an anti-scorbutic. Beet-roots should be well boiled, and the skin taken off afterwards; for

if deprived of their skin before boiling, nearly the whole of the saccharine matter is extracted by the water.

Asparagus—is possessed of considerable acrimony; but when eaten in its intermediate state, between root and plant, this quality is little perceptible. As an article of food it is quickly dissolved in the stomach, and when sufficiently boiled is not disposed to produce flatulency or create acidity. It is somewhat sweet to the taste, but more remarkably mucilaginous, from both which qualities it is manifestly nutritive. Its medicinal property is evinced in its diuretic effect; and in diseases peculiar to the kidneys I have witnessed its beneficial effects in many instances.

Jerusalem Artichoke—is a root now in common use, but from experience and observation I cannot recommend it for food, except to the strong and healthy; it is watery and flatulent, and requires too much pepper and salt, as condiments, to be admissible for a weak stomach.

Artichoke is very injurious when eaten with butter, as is the common practice, otherwise it is a delicate vegetable, and remarkably nutritious.

Carrot and *Parsnip*—are both excellent vegetables; the former contains a good deal of sugary matter, and is in consequence nourishing, and slightly laxative. In some stomachs it is not so easily digested, on account of the fibrous matter which it contains; but when young and well boiled, no vegetable is more agreeable or easier of digestion. The latter contains more nourishment; but from its greater sweetness, it is not so pleasant to most persons. Old parsnips should never be eaten, as they turn acrid by keeping; and dreadful effects have been justly attributed to their use. They should also be cultivated in a dry soil; for when grown in a marshy situation, they possess a deleterious acrimony, which in some instances, has produced insanity.

Leek, *Onion*, and *Garlic*—are all species of one genus. In their natural state, they are too acrid to be made use of as food; but by cultivation and climate, they are rendered harmless to the human body. By boiling, their acrimony is dissipated, and a remarkably mild substance remains, which possesses a good deal of nourishment; and, notwithstanding they disagree altogether with some stomachs, yet their stimulant matter is useful as a condiment in promoting digestion, and in a medical point of view they are valuable expectorants and diuretics. In its recent state, the onion is most acrid; in a boiled state, the leek retains its acrimony most tenaciously.

Celery—is a vegetable so destructive to the nervous

system, that under no circumstances should I feel justified in permitting its use; although its deleterious properties are destroyed to a great extent by blanching it in salt and water, still celery ought to be the most suspected and most shunned of all our salads.

The *raw vegetables* recommended as salads, are the following:—radishes, water-cress, American-cress, mustard and garden cress, endive, nasturtium, scurvy-grass, lettuce, and corn-salad. Many of these plants belong to the same genus, possessing, in common, a degree of pungency and acrimony, which differs materially from the acrimony of the renunculi. The former, taken into the stomach along with the food, promotes its digestion, and acts beneficially both on the skin and kidneys: while the latter, even in the smallest quantity, is so corrosive, as to produce gastric inflammation.

Cucumber—is eaten to a great extent in large cities by all classes; and as they are used only in their green state, they have no nourishment, and frequently give rise to cholera, diarrhœa, &c. Hence persons with weak stomachs should avoid them altogether.

Melons—possess the same qualities as the cucumber; but being of a more tender texture, they are on this account less hurtful: but with those stomachs that have not their digestive powers in good order, they are sure to disagree.

Pompions—are used only when boiled, by which means their texture is much loosened; and when well ripened, they become mealy and farinaceous, and therefore more nourishing: but as we generally use them, they are at best a weak insipid food.

Potatoes—contain a great quantity of nutritive matter, which when extracted from the poisonous part of the root by maceration, is fit for all the purposes of life, and equal, if not superior, to the best arrow root of the West Indies. Although the potato forms a great proportion of the food of the people of this kingdom, and is found to be sufficient for the sustenance of the body by the most laborious portion of the community; still we must bear in mind, that those things which may be eaten with impunity by labourers, are not to be considered as a criterion for the sick or the weak; and on this ground, alone, I disapprove of the use of potatoes to persons whose digestive organs are not in a heathy state.

When the bowels are in a deranged state, the potato should be avoided, whether solid or boiled down into potato soup. It is also very apt to occasion looseness of the bowels in children, or to increase it when present.

Mashing potatoes makes them more indigestible, as they are thus less intimately mixed with the saliva in mastication.

There are many other kinds of vegetables; but as they are not in common use, I do not think it necessary to enter into their several qualities.

ANIMAL FOOD, &c.

Beef—is the most nutritive of all kinds of animal food, and is easily digested; as a proof of its superior nourishing qualities, I may just mention the fact of prize-fighters, whilst in training, living chiefly upon it, and if changed for mutton, a sensible diminution of bulk and strength takes place in a short time. The ox is not so liable to disease as sheep, and is therefore always to be preferred as food. Good beef-tea being seldom made, although an article of considerable importance both to the sick and the convalescent, I shall give the best receipt for its preparation:—Cut a pound of lean gravy meat into thin slices, put it into two pints and a half of cold water, set it over a gentle fire where it will become gradually warm; when the scum rises, let it continue simmering gently for an hour, then strain it through a fine sieve or a napkin; let it stand ten minutes to settle, and then pour off the clear tea.

Veal—is very indigestible; persons labouring under stomach complaints should never eat it. I have seen many severe attacks of indigestion brought on by it; and therefore weakly persons should wholly abstain from it, as a part of diet.

Mutton—is very wholesome, and easier of digestion than beef: but in consequence of the pestilential diseases affecting the sheep (of which I have fully treated in another part of this work), I must condemn it as the very worst aliment sold at market; this I am compelled to do, from what I have seen and heard of its injurious effects. (*See page* 66.)

Lamb—is liable to the same objections as *veal;* it is indigestible, much more so than sound mutton.

The *Goat*—is seldom eaten, in consequence of the denseness and insolubility of its flesh; but the milk of this animal is highly nutritious. By dieting the goat, we may obtain the purest milk; which I have found to be a valuable remedy in many and various diseases: in gastritis or stomach complaints, in consumption, in scrofula, &c.

Pork—is a very gross unwholesome food, and to be avoided in every shape by persons afflicted with cutaneous

diseases, scrofula, wounds, ulcers, indigestion, cough, or consumption. It gives rise to an impure state of the fluids, from its rank oil being carried into the system unassimilated.

Venison—is very wholesome, perhaps more so than any other kind of animal food, being less liable to disease, equally nutritious, and easier of digestion; it should always be preferred for the weak and sickly.

The *Hare*—is sufficiently wholesome and nutritious; but the mode of dressing it with various stimulating condiments renders it hazardous both to the diseased and convalescent.

The *Rabbit*—when young is tender, and affords an aliment very readily digested, and is considerably nourishing.

The domesticated animal is subject to various diseases, especially of the lungs, liver, and skin.

Poultry—is the least stimulating of animal food; on this account it may be eaten (and is certainly the only unexceptionable aliment of the kind) in fevers and inflammatory disorders.

The *Pheasant*, *Partridge*, *&c.*—when young are easy of digestion, and are not found to disagree even with the most delicate stomachs.

Moor Fowls—although differing in species, have a common quality; they are all tender, and considerably nourishing, very wholesome and agreeable to most persons. When kept too long they are injurious to the system, especially if there be any tendency to disease in the constitution.

The *Goose*—when fed on wholesome vegetable aliment, will not be found to disagree with any person; but when the animal is fed on rank offals of every description, it is not to be wondered at if few stomachs are capable of digesting it.

The same observations apply to the *duck*.

The *Woodcock* and *Snipe*—are both wholesome and easy of digestion; the legs are more soluble and tender than the wings and breasts.

Pigeons—should be eaten only when young; as they grow old, their texture becomes hard and indigestible.

The *Eggs* of the fowls and birds now mentioned, may all be employed as food. Eggs contain a large proportion of nutritious matter; and a smaller quantity of such food will satisfy the stomach than of any other kind of aliment; as they are less stimulant than any other kind of animal substance, they are well calculated for consumptive and delicate persons, and such as are recovering from long illness.

If boiled hard, they sit heavy on the stomach; but when

properly cooked, as for instance, boiled for two minutes and a half, or very lightly poached, very few things equal them in point of facility of digestion.

Fishes.—Although various opinions are entertained as to the nutritious qualities and wholesomeness of fish, yet experience enables us to decide on their fitness for food. They have been used as aliment at all times, and in every part of the habitable globe; and indeed, in some parts of the earth, there are people who live entirely upon them. It is certain, that in our own country some millions make fish the chief part of their diet; and with them it appears perfectly sufficient for all the purposes of the human economy. I fully agree with Cullen in his opinion as to the nutriment afforded by fish; and from the observations I have made in various sea-port towns and villages inhabited almost wholly by fishers, I am inclined to believe, that those people live to a more advanced age, and are equally as vigorous and healthy as the inhabitants of inland towns. It will therefore be very doubtful, if fish afford much less nourishment than meat does; and I am persuaded, if any, the difference is very inconsiderable.

The fishes which may be eaten, are the salmon, sole, turbot, cod, whiting, haddock, flounder, herring, mackerel, and sturgeon. As fish gives less excitement during digestion than meat, it is therefore a useful article of diet to persons recovering from acute diseases; and I am certain, that the cause of its disagreeing with many stomachs, is to be attributed to the butter used as sauce. The flakiness of the fish, and its opaque appearance after being cooked, are proofs of its being good; but when it is bluish, and has a degree of transparency after being sufficiently boiled, it shews it to be of an inferior quality, and should not be eaten.

Fruit and milk should never be taken at the same meal with fish.

The aliment derived from insects is very trifling; I shall therefore only mention the lobster, crab, prawn, and shrimp.

The *lobster* and *crab* differ little from each other in their qualities; they are both considerably nourishing, but certainly more indigestible than most part of fishes.

Oysters—have long enjoyed the general good opinion of mankind; with some peculiar stomachs they certainly disagree; but to persons labouring under consumption, scrofula, indigestion, and some inflammatory diseases, they are decidedly beneficial as an article of diet. For the proper mode of preparing them, see "Cookery for the Sick."

MILK, &c.

This article should, properly, have been treated of in another part of this work. It is not my intention to enter into a comparison between the different kinds of milk, as I have neither time nor room for such a purpose. I shall therefore confine my observations to cows' milk, being more generally used than that of any other animal.

As cows' milk is an article of so much importance in diet, it claims the highest consideration. It is well known, that the milk may be improved or deteriorated by the food of the animal; and if the greater part of our pasture lands be overrun with noxious weeds; and if it be a matter of fact, that the animals are compelled to eat these weeds from necessity, I would ask any thinking man, How it is possible for the milk to be wholesome, if the food of the animal is made up of rank grass, and poisonous weeds? I have laboured long and zealously to impress on the minds of farmers the necessity of attending to this subject; but I am afraid to little purpose. However, as an individual, I have done my duty, in spite of the sneers and contempt with which my opinions have been received; and if the destruction of their flocks be inevitable, and consequently their own ruin and misery, they may have the satisfaction of knowing that the cause of the evil was brought about by their own ignorance, and their calamity consummated by prejudice.

As milk holds a just medium between a vegetable and animal diet, it is directed with great benefit to all persons labouring under pulmonary diseases, as it affords sufficient nourishment to the body without a tendency to increase the inflammatory diathesis, so much dreaded in this disease. As a general article of diet, it may be used by the sick and convalescent, either simply or diluted with water; and in a variety of diseases it will be found to agree with the stomach better than any other kind of food. Milk and water was used and praised even by Hippocrates, who employed it with great advantage; particularly as a safe means of restoring those who were reduced to extreme weakness by long illness. At one time, a milk diet was introduced throughout all Europe, for the cure of some diseases, and especially of the gout and rheumatism, by the experience of a gouty physician at Paris; and we have also the authority of Linnæus, who was subject to repeated attacks of gout, and who, by an abstemious diet and living principally on strawberries and milk, was speedily relieved.

Butter—is an article in very general use throughout the

whole of Europe, and considered as a wholesome and nutritious substance; so much so, that few persons will admit that it can be injurious to health, eaten in any quantity, or that its quality, however deteriorated, can give rise to severe disease. But experience has led me to form a very different estimate of its effects on the animal economy; and I am happy to find that my opinions are corroborated by the testimony of a very able physician. In a dictionary of medicine by Dr. Macauley, of Edinburgh, on the use of butter, he observes, that "when used as a sauce, or baked into paste, it is in this way that it is too often used to excess; and though it does not produce effects that are immediately apparent, it lays the foundation of stomach complaints of the greatest obstinacy. Its use is also apt to give rise to diseases of the skin very difficult to cure. Persons labouring under stomach complaints should not use much butter, especially when heated, as in buttered toast, muffins, &c.; and those subject to inflammatory and gouty affections, should be sparing of the use of butter in all its forms. It is a bad part of the management of children to pamper their palates by frequently indulging them with butter, as it is apt to give rise to a gross and unhealthy habit of body, characterized by the frequent appearance of boils and other sores, discharges from behind the ears, &c., or eruptions on the head, and other parts of the skin. Its inordinate use also occasions too great fulness of the system; and in the numerous nervous and inflammatory diseases of children, it is the high-fed and plump children that are most frequently the severest sufferers." Dr. Macauley condemns the use of butter indiscriminately, without inquiring why it produces such mischievous effects on the system; and its bad consequences, which he has so well described, I myself have experienced invariably on eating butter made whilst the fields were covered with buttercups; but the butter which is made from cows feeding on clean pasture, I can eat without experiencing the same bad effect. But as such butter can seldom be obtained, I would recommend every one labouring under any disease or indisposition, to abstain wholly from its use.

Cheese—is a substance so indigestible, that it is only fit for persons who are subjected to hard labour.

ON DRINKS.

Simple *water*, that is, such as nature affords, without the addition of other substances, is the proper drink of man, inasmuch as it is the only liquid which instinct induces

the whole brute creation to partake of. How much water enters into the fluids and solids of the body, is well known; and when we consider the immense quantity of water thrown off by the skin, and from the lungs in a still greater proportion, we shall not be surprised at the wise provision of nature in giving the appetite of thirst. Water is the only elementary substance which enters unchanged into the composition of the fluids; and although there be no difference in the appearance of water, yet every one is sensible how much it varies in taste. Nature seldom affords water perfectly simple (rain excepted), or without its being more or less impregnated with some other matters; and upon this account, a distinction has been made of the natural waters as being, from different impregnations, more or less proper for the use of man. Water will dissolve or hold in suspension a part of the matter through which it passes, whether earthy or mineral; and, consequently, when it is impregnated with dissolved minerals, or contaminated with putrescent animal or vegetable substances, it proves very destructive to health, and gives rise to malignant distempers, fevers, &c. Rain is the great source of supply to the vegetable kingdom, and is the purest kind of water. Spring-water often contains some saline matter, which renders it injurious to the stomach; and where soft water cannot be obtained, it ought to be boiled, and strained before drinking. Persons suffering from indigestion, feel hard water to be exceedingly oppressive to the stomach; and some of the inferior animals, as horses, dislike it much, and have their bowels injured by it. River-water is generally pretty good, except, as in the case of the Thames, it be loaded with all the mud and excrements of an immense city.

I would recommend every family in London to procure one of Robin's Filtering Machines, as they are to be had at a small expense; and the little trouble necessary to keep it clean, is nothing in comparison with its great utility as a preserver of health.

Water is by far the safest and most salutary beverage in which man can possibly indulge, being the best solvent and diluent of our solid food, and that which best supports the tone of the stomach without exhausting its vigour; and which, in reality, furnishes not only the most simple, but also the most suitable supply to the secreting vessels, and towards maintaining the general humidity or elasticity of the body. Hence it arises, that those who use pure water only as their general drink, are the most free from diseases, and retain the vigour of life, and its different functions, to a

more advanced age; and, as the celebrated Hoffman says, "Pure water is the fittest drink for persons of all ages and temperaments; and of all the productions of nature or art, comes the nearest to that universal remedy, so much sought after by mankind, but never hitherto discovered."

FERMENTED LIQUORS.

Wines—I shall consider chiefly in a medicinal point of view; for to a man in perfect health they may be considered as injurious, or at least, a superfluous luxury. As a medicine, wine is one of the most valuable ever imparted by Providence to man: its general effect is to strengthen the digestive organs, to quicken the circulation, to exhilarate the spirits, and to sharpen the mental faculties. But at the same time it must be inculcated, that these strengthening and exhilarating effects are of the most insidious nature; that when carried beyond moderation, they pervert the faculties, degrade the rational nature, create a morbid craving for a repetition of the indulgence, and lay the foundation for a long train of suffering and disease.

In many diseases of debility, and in the state of convalescence, wine supplies a restorative for which no substitute can be found; but in all inflammatory diseases, its use is inadmissible; and when acidity of the stomach is complained of, wine will generally be found to aggravate this troublesome symptom.

Ales and Porter—contain a considerable quantity of nutritive matter; and could we obtain these articles unadulterated, they would be found to be conducive to a high degree of health when taken in moderation; they are much to be preferred to the pernicious custom of drinking so much ardent spirits; and this beverage is in many respects better than wine, as it is less disposed to ascescency. But the noxious stuff sold in London, and elsewhere, as beer, is one of the most injurious articles to the constitution; being adulterated, as the Edinburgh ales with opium, the London porter with cocculus Indicus, quassia, and other narcotic and poisonous herbs, which compels me to proscribe their use entirely as drink.

SPIRITS.

Brandy, Rum, Gin, Whiskey, &c.—All ardent spirits are destructive of the energies of both body and mind. When taken even in moderation, a powerful preternatural action is produced throughout the whole system; the pulse is rendered full and quick, the mind is exhilarated, and the muscular strength increased for a time; but the lassitude,

languor, and other symptoms of debility, which speedily follow the reaction, prove how hurtful the repeated effect must be; and those who indulge in dram-drinking, are of all men the most to be pitied. A greater curse cannot be inflicted on a nation, than the easy purchase of spirituous liquors: every person acquainted with the state of Scotland twenty years ago, may remember the moral integrity and high religious feeling which then actuated the minds of that people: but, since the free introduction of whiskey, drunkenness has spread, like a moral pestilence, among the middle and lower classes. This monster of iniquity is not confined to the manufacturing towns alone; the surrounding villages are wallowing in the same moral turpitude, poverty, political discord and oppression.

The bad effects of ardent spirits on the constitution of those who indulge in them, are no less apparent; the long train of stomach complaints, of which dram-drinkers are the subjects, ought to be a warning to the young and inexperienced. The deceitful exhilaration of a few hours, is a poor compensation for the suffering from indigestion, flatulence, and the gnawing pains which tempt a recurrence to the fatal dose. This pernicious habit gives rise also to various affections of the liver, particularly that hardened state of it, which often ends in dropsy, and other symptoms of a broken down constitution. The use of spirits predisposes likewise to inflammatory attacks of various organs; to erysipelas, and disorders of the head, ending in apoplexy and palsy.

The above observations apply also to those who are in the habitual use of drinking grog-toddy, punch, &c.

As a medicine, ardent spirits, like wine, are of great importance. To use the language of Solomon, "Strong drink should be given unto those that are ready to perish, and wine unto those that are of heavy heart." Thus far are ardent spirits recommended by the wisest of men. But the habitual wine-drinker has the Promethean vulture for ever gnawing at his liver; and the miserable train of diseases contracted by it, such as gout, and other inflammatory diseases, are transmitted to their unfortunate children. There is no remedy hitherto discovered equal to the vapour-bath, when properly medicated, for the cure of the gout. Few persons can use wine and spirits in moderation when they have them in their power: the insidious liquor, like opium, begets a longing for a repetition of the dose; and frequent indulgence leads to excess. The Americans, as a nation, have experienced more of its pernicious effects than any

other nation; and they are now abandoning its use altogether. In this country, the sons of our nobility and merchants who are left heirs to large fortunes, it would have been better for them had they been born peasants, than to have inherited their fathers' estates at the expense of inheriting their diseases. What an awful legacy, gout, scrofula, indigestion, &c.: and what is still more terrible, insanity, and imbecility of both body and mind.

To use the language of Scripture, wine, even at best, inflames the passions, makes men tyrannical, oppressors of the widow and fatherless, heady, high-minded, hard-hearted, and far from God.

SPRUCE BEER.

Spruce Beer—ought to be more highly esteemed in this country than our best wines. If we consider it in a medicinal point of view, it is the best anti-scorbutic that can be used; consequently, it is highly esteemed by the inhabitants of Northern climates, particularly the Newfoundland men: it is also esteemed useful in many cutaneous complaints of this climate, as well as in chronic rheumatism, &c. I have found it of great use to children labouring under disease of the mesenteric glands; in the various stages of scrofula, and affections of the chest. An extract of the black or white spruce is imported; two or three table spoonsful of which, added to sixteen gallons of water, in which as many pounds of molasses have been previously dissolved, is fermented with a due proportion of yeast. When the fermentation is a little abated, it is bottled for use; and as this process still goes on, it soon becomes a very brisk and not unpleasant drink. In America, Newfoundland, Sweeden, Denmark, and Lapland, the branches of the spruce fir are infused in the water previous to the fermentation, at 185 degrees of heat; then add the spruce and yeast at a temperature of 80.

TEA, &c.

The next destructive drink of which I have to take notice is *tea;* and as this article enjoys the general good opinion of medical men, for reasons best known to themselves, I shall therefore direct my observations to another class, whose anxious enquiry is the way to health; and to them I would say, avoid the use of tea. If the digestive organs be weak, and the body otherwise predisposed to disease, the effects of tea on the system is most injurious. It may, indeed, be a slow poison, as I have often been told; but, at the same time, it is a certain one.

That class of diseases commonly called nervous, tremors, habitual depression of spirits, and all the miserable train of symptoms arising from laxity and debility, may justly be ascribed, in nine cases out of ten, to this insidious poison. Even its moderate use gives rise to many distressing symptoms; such as flatulency, a sensation of sinking at stomach, watchfulness, and the feeble tremulousness known by the epithet *nervous*.

As Dr. Cullen lived in an age when the injurious effect of tea was beginning to shew itself on the constitutions of the people, I will give an extract of his opinion, which cannot fail to interest the general reader.

"With respect to the qualities of tea, as a medicine," says Cullen, "that is, its power of changing the state of the human body, we might suppose it ascertained by the experience of its daily use; but from the universality of this use in very different conditions of the plant, and in every possible condition of the persons employing it, the conclusions drawn from its effects must be very precarious and ambiguous; and we must attempt by other means to ascertain its qualities with more certainty.

"To this purpose it appears, from Dr. Smith's experiments *De Actione Musculari*, No. 36, that an infusion of green tea has the effect of destroying the sensibility of the nerves, and the irritability of the muscles; and from the experiments of Dr. Lettsom, it appears that green tea gives out in distillation an odorous water, which is powerfully narcotic. —No. 49. Vol. IV.

"That the recent plant contains such an odorous narcotic power, we might presume from the necessity the Chinese find of drying it with much heat before it can be brought into use; and that, even after such preparation, they must abstain from the use of it for a year or more, that is, till its volatile parts are still further dissipated: and it is said, that unless they use this precaution, the tea in a more recent state manifestly shews strong narcotic powers. Even in this country, the more odorous teas often shew their sedative powers in weakening the nerves of the stomach, and indeed of the whole system.

"From these considerations we conclude very firmly, that tea is to be considered as a narcotic and sedative substance; and that it is especially in its most odorous state, and therefore less in the bohea than in the green tea, and the most is in the more odorous, or what are called the finer kinds of the latter.

"The effects, however, seem to be very different in

different persons; and hence the different, and even contradictory accounts that are reported of these effects. But if we consider the difference of constitution, which occasions some difference of the operation of the same medicines in different persons, and of which we have a remarkable proof in the operation of opium, we shall not be surprised at the different operations of tea.

"If to this we add the fallacy arising from the condition of the tea employed, which is often so inert as to have no effect at all; and if we still add to this the power of habit, which can destroy the powers of the most powerful substances, we shall not allow the various and even contradictory reports of its effects to alter our judgment, with respect to its ordinary and more general qualities in affecting the human body.

"Thus, from the experiments above mentioned, and from the observations which I have made in the course of fifty years, in all sorts of persons, I am convinced, that the qualities of tea are narcotic and sedative.

"It has been often alleged, that some of the bad effects imputed to tea are truly owing to the large quantity of warm water which commonly accompanies it; and it is possible that some bad effects may arise from this cause: but from attentive observation I can assert, that wherever any considerable effects appear, they are in nine of every ten persons entirely from the qualities of the tea; and that any like effects of warm water do not appear in one of a hundred who take in this very largely.

"But while we thus endeavour to establish the poisonous nature of tea, we do not at the same time deny that it may sometimes shew useful qualities. It is very possible, that in certain persons, taken in moderate quantity, it may, like other narcotics in a moderate dose, prove exhilarating; or like these, have some effect in taking off irritability, or in quieting some irregularities of the nervous system.

"As its bad effects have been often imputed to the warm water that accompanies it, so we have no doubt that some of its good effects may also be ascribed to the same cause, and particularly its being so often grateful after a full meal."

Coffee—as a beverage is much less objectionable than tea; the bad effects attributed to it are not to be regarded. When the article is good, and kept from exposure to the air after roasting, and well made, I have seldom heard any complaints about its turning acid on the stomach; and it never produces the same morbid effects on the nervous system, of which tea-drinkers are the miserable subjects.

As an article of diet, it will be found (with few exceptions) to be not only innocent, but salubrious. To a stomach oppressed with animal food, or weak from indigestion, a cup or two of good coffee affords considerable relief; consequently, it promotes digestion: hence the French custom of drinking it immediately after dinner, is certainly much better than that which prevails with us of taking it late in the evening, as it certainly prevents sleep.

Cocoa—is much more nourishing than either of the above articles I have mentioned; in fact, neither coffee nor tea afford the least nutriment. Cocoa, when well made, is a light and wholesome drink, and well adapted to the nervous and those of a delicate constitution, as well as to the sedentary and studious.

Chocolate—is prepared from the cocoa-nut; it is exceedingly nourishing; but with a great number of invalids it sits heavy on the stomach; it should therefore be made with water instead of milk, and the milk added to it in the same way we add it to tea: in this state it will agree with most persons, and form a wholesome beverage to the emaciated and convalescent.

There are a variety of herbs which might be advantageously substituted for tea; such as sage, ground-ivy, agrimony, British herb-tea, &c.: all which are wholesome, and possess medicinal properties of a valuable nature, though in a slight degree.

AIR AND EXERCISE.

Of all the means of preserving health, air and exercise are the most important. A man may exist for a considerable time on a morsel of food, and that too of a bad quality; but he can hardly live for a few moments without air, which is a sufficient proof of its vast importance in supporting the vital principle. We shall consider air only in reference to the cause and cure of disease. The influence of bad air on the animal economy, is evinced in the variety of diseases of which persons living in particular districts are the subjects: if in the neighbourhood of low marshy land, where water is allowed to stagnate, the growth of vegetables is rank and luxurious, and their decomposition more rapid; hence persons inhaling the noxious effluvia, are seized with agues, remittent or continued fever; whereas in dry plains and mountainous situations, such complaints are very rare. The influence of air is so great, that the whole body may be changed by it; and to such an extent, as to bring on premature death. Persons may indeed

live many years in large cities, but they cannot enjoy health; life is to them a tedious journey; the mind is enervated, and the body oppressed with languor, weakness, and depression of spirits.

According to a table, which has been drawn up with considerable ability, and which enables us to come to general conclusions on the subject, we find, that in great towns, the deaths average from 1-19 to 1-24: in moderate towns, from 1-25 to 1-28: in small villages and the open country, from 1-35 to 1-60. A more convincing proof of the injurious effects of bad air need not be adduced. The law-courts in England have also determined that, in a given number of persons residing at two places, viz., in the country or the metropolis, the duration of human life in the former ought to be computed at fifteen compared to ten and a half of the latter.

From what we have now stated, it must be evident, that the peculiar qualities of air are of the first importance in a medical point of view; I would therefore make a few observations for the guidance of invalids, in order that they may choose a residence conducive to their recovery.—In the first place, I would guard those who are predisposed to affections of the windpipe or chest, against sea-air, as it contains a great proportion of saline particles, and is thereby rendered injurious from the salt coming in contact with an irritable or abraded surface. I am aware that the ancient as well as modern physicians have recommended a sea voyage for the cure of consumptive patients; but the former entertained very different views from the latter; they sent their patients to Alexandria in Egypt (as we find by both the Plinys), partly for the change of air, but chiefly for the sake of the exercise by the motions of the ship; and therefore Celsus says, "Si vera phthisis est, opus est longâ navigatione." It is said that Penzance, in Cornwall, is the best situation in Europe for the consumptive: this may be true in theory, but in practice it is lamentably otherwise: I have never seen or heard of a case of true phthisis having been cured by the air of Cornwall. On the contrary, I have had many patients under my care who had lingered away months at Penzance, and in Devonshire, without experiencing the slightest relief. Were I to choose a residence for a patient threatened with a pulmonary complaint, the spot I should fix upon in preference to any other in the environs of London, would be that of Bayswater, for the following reasons: the place is built on a dry gravelly soil, sheltered on the north by the Hampstead hills, and

enclosed on the south-west by Kensington-gardens; the air is soft, and less humid than that of Chelsea or Brompton. As the winds prevail in this country, at least nine months in the year, from the east and south, and from the west round to north, consequently the smoke of London is carried in an opposite direction. The salubrity of the air is greatly increased by its contiguity to the palace gardens, containing the finest collection of trees I have met with in this country. The noxious vapours of the surrounding atmosphere are continually counteracted by what may be called the respiration of the trees. This wonderful phenomenon in the economy of vegetation, has been the subject of minute investigation by the philosopher Ingenhouz; who found by repeated experiments, first, that most plants have the property of correcting bad air within a few hours when they are exposed to the light of the sun; but that, on the contrary, they corrupt the common air of the atmosphere during the night: second, that not all the parts of plants, but only the green stalks of leaves, particularly through the sides opposite to the soil, produce the former beneficial effect: third, that the disengagement of pure or vital air does not commence until the sun has been some time above the horizon; that it ceases altogether with the termination of day-light; and that the disadvantage arising from the impure exhalation of plants during the night is far exceeded by the great advantage they afford during the day; insomuch that the impure air generated by a plant during the whole night, scarcely amounts to a hundredth part of the pure vital air or oxygen exhaled from the same plant in two hours of a serene day.

There are many other diseases in which a change of air will be found of great service, such as indigestion, dropsy, jaundice, asthma, and the wasting diseases of children, when there is feebleness of the constitution which neither food nor medicine has been able to overcome. Invalids should spend the greater part of their time during the summer season in the open air, but never walk abroad after sunset, as the evening dews of summer are nearly as prejudicial to health as the damp rainy weather of winter.

Exercise is the next subject which claims our attention; and if it be one of the most essential means for preserving health, of how much more importance must it be in the cure of disease. It is an easy matter to induce patients to take medicine, but it requires the utmost persuasion to prevail on them to take exercise, even when they feel themselves to be invariably benefited by it. The ill effects of

the want of exercise are seen in the wan countenances of those who are confined to sedentary employment. In all diseases of debility, in derangement of the digestive organs, and in nervous complaints, exercise is most beneficial as a curative means. Children afflicted with scrofula, and grown up persons predisposed to that disease, are exceedingly averse to active exertion; but instead of indulging children in their desire of lingering about the whole day on the couch, parents should see them taken out at least four hours every day when the weather will permit. No medicine can impart that firmness to the solids, vigour to the circulation of the fluids, and elasticity to the whole muscular and nervous system, which are the results of exercise in the open air.

Riding on horseback has been much extolled in the cure of consumption. Dr. Sydenham has published many striking examples of its good effect; and subsequent experience has tended to corroborate his statements. In Fuller's *Medicina Gymnastica*, many interesting cases are detailed of the beneficial effects of horse exercise; among which is the following account from Dr. Baynard, of his recovery from a consumption. "In the month of October, Anno 1694," says Dr. B., "I was sent for to my old friend and acquaintance, Colonel W. Bamfield, at Hardington, in Somersetshire; I being then in London, and had been very ill all the summer at Bath. My case was, as I and other physicians thought, a true and confirmed phthisis; for I had an habitual heat, and continual cough night and day; a very quick and frequent pulse; I spat blood, and expectorated a viscous tough matter, sometimes green, yellow, ash-colored, and that in great quantity; so that every body gave me over for lost: but through a constant and cool regimen in diet, chiefly milk and apples,—together with constant riding night and morning in the air, and that on the highest hills and places I could find, I thank God, in two months time my hectic fever abated, cough ceased, flesh came on, and my appetite returned; and by continuing riding, and other field exercises, I recovered to a miracle."

Many other cases of a similar nature might be selected in favour of this kind of exercise, were it necessary, to convince the consumptive of its utility. The great reason why exercise is so beneficial, not only in consumption, but also in all other diseases, is from its increasing all the secretions of the body, particularly the skin; and the intimate connection or sympathy that exists between the latter organ and

other vital organs of the body, is manifest to every one capable of distinguishing between health and disease. If the secretions of the skin are obstructed, that is, when the perspiration is to any extent checked, the lungs are oppressed, and their free action impeded; whereas when the skin is in a healthy state, and the perspiration copious, the whole body is relieved by this great emunctory: hence the utility of the bath in consumption, and diseases generally, by which the system is relieved in the most natural and salutary manner, and the excess of heat and feverishness diminished. The effect of the bath in curing diseases of the above description has been so manifest, as to warrant me in asserting that which many physicians have laboured to deny: namely, that consumption may be cured, even in an advanced stage of the disease. Are there not thousands of persons who die annually of fever; and may we not with equal propriety assert, that fever cannot be cured: but this would be to doubt the evidence of our senses, and merely assuming hypothetically that to which all experience stands opposed. Persons of a weak debilitated constitution should never walk any distance before breakfast, as it wholly unfits them for a renewal of exercise during the remainder of the day, and at a time calculated to do them more good; that is, in the forenoon between breakfast and dinner. Valangin relates a very interesting circumstance, which originated in consequence of a dispute between two colonels of horse in the French army.—A considerable body of men having been ordered to march a distance of six hundred miles during the hotest weather in summer; the officers were divided in opinion as to whether the day or the night, at that season of the year, was the most proper period for marching: as it was an interesting subject in a military point of view, to have it ascertained they obtained leave from the commanding officer to try the experiment. Accordingly one of them marched during the day, and rested at night; and in this way arrived at the end of his journey of six hundred miles, without the loss of either men or horses: whilst the other, who thought it would be less fatiguing to march in the cool of the evening and part of the night than in the heat of the day, at the end of the same march had lost most of his horses, and many of his men.

ON CLOTHING,

I need say but little; our great object is to keep the body in a comfortable state of warmth; and the clothing best adapted for this purpose, is the following: in the winter

season, calico should be worn next the skin, and wash leather over it; the wash leather retains the natural heat of the body, and keeps it in a more regular temperature than flannel.

Flannel.—When flannel is worn next the skin, it keeps up a constant irritation, and often gives rise to cutaneous diseases, very obstinate to cure. The perspiration which is constantly kept up by the use of flannel, becomes debilitating. This preternatural excitement of the skin renders the body subject to cold from every breath of wind that blows. —A gentleman with whom I am well acquainted, had been in the habit (for many years) of wearing a piece of flannel over the chest, with the view of benefiting a slight cough to which he was occasionally subject. This precautionary measure happened to be forgotten one morning, amidst the hurry and bustle of a journey to the country. After a lapse of some days he discovered, to his great surprise, that he had omitted to put on his flannel; but the weather being warm, and his old enemy (the cough) having unexpectedly left him, he determined to allow things to remain as they were: and to this day his flannel has been laid aside, and his cough ceased to trouble him.

Cotton or *Coarse Calico*—possesses all the good properties of flannel; it keeps up a gentle friction on the skin without exciting it too much, or causing irritation; it is also a non-conductor of heat, although not so much as flannel; and this very property, which is taken up as the only argument that can be adduced against its use, is in my opinion one of the strongest reasons that can be urged in its favour: for whilst flannel, from its bad conducting property, must necessarily retain all the noxious vapours exhaled from the skin, it is reasonable to suppose, that these morbid excretions being retained by the flannel, must be exceedingly unhealthy, engendering disease, and producing contagion. The feeling of comfort and cleanliness which the wearing of calico gives to the body, especially if it be frequently changed, is highly conducive to health; and one would think that, among a people so fastidious as the English, that alone would be a sufficient inducement to give it the preference. Many delicate and diseased persons suffer extremely from cold feet, especially during winter; and from a mistaken notion have recourse to woollen stockings; but this, instead of remedying, increases the evil: it promotes and retains perspiration, so that a cold clammy moisture is constantly felt on the feet. Whereas, were they to wear cotton stockings next the skin, and lambs' wool or silk over them, the natural

warmth of the feet would be prevented from escaping, and the external cold from reaching the body. I have recommended this plan to many of my patients, with the greatest advantage.

Silk—should never be worn next the skin; as it has no affinity for water, the perspiration remains unabsorbed, and produces the most uncomfortable feeling of shivering and coldness.

Of *Chamois Leather*—I cannot speak too highly to the convalescent, the gouty and rheumatic; no other clothing can be compared with it in point of utility. Many officers in the army and navy (among whom it is generally worn), have informed me, that a case of rheumatism is seldom met with among those that habitually wear it; and persons who, from susceptibility of "catching cold," are obliged to spend the greater part of their lives within the walls of their apartments, to whom a north-east wind is as pregnant with asthma and rheumatism, as it is daily expected to be with cholera morbus by our recently instituted Board of Health; to such the wash leather is as a coat of mail, in which they may brave the cold, the rain, and the wind from every point. To the rheumatic I would most urgently recommend it, from the numerous instances of its good effects which I have seen in my own practice, and on the authority of Sir John Sinclair, whose name must be familiar to every lover of science. I will transcribe the following case from his "*Code of Health*," which cannot fail to be interesting to hundreds suffering in the same way. "A noble lord has recently communicated to me a simple mode by which he was cured of a severe rheumatic complaint: he had suffered incessant pain in his hip-joints and shoulders, for almost thirteen months, particularly at night, and could not walk without the support of sticks or some person's arm. He cannot recollect how it happened, but it came on gradually. After trying innumerable other remedies without success, he was advised by a most respectable member of the medical profession to put on both drawers and an under waistcoat of chamois leather; which in a very few days gave him so much relief, that he could walk and even ride without pain, and in the course of three weeks at the most he was entirely cured. This was in the year 1808, and he has had no return of the complaint since. The drawers were tied at the ancles; but that is not necessary unless the lower joints of the legs are affected with rheumatism: the under waistcoat had sleeves, and lapped over a little; had no buttons, but was tied with strings in the front. He has recommended it

to a great many people of all ages with almost invariable success. There is at this time, anno 1812, in the house with him, a gentleman of seventy years of age, who has been entirely relieved by it, though he had suffered many years from rheumatism.

ON SLEEP.

The celebrated German philosopher Kant, well observes, "Take from man hope and sleep, and you will make him the most wretched being upon earth." Sleep is so necessary to restore the exhausted state of the body, that the loss of even a single night's rest seems to unstring the whole machinery of the animal economy. Sleep is intended to refresh the body and restore the mental faculties when exhausted by the fatigues of labour or mental exertion. It is impossible to specify the quantity of rest necessary for this purpose,—as too little sleep weakens the nervous system, and occasions diseases; while too much renders the mind dull, the body bloated and phlegmatic. We have many extraordinary examples of men, who with a few hours of sleep have lived to a great age in the enjoyment of health. Yet seven or eight hours, at least, in the four-and-twenty, seem to be requisite for the generality of mankind. Children require more sleep than grown persons, and the sick and convalescent more than the healthy. "Night is the time for rest," and the proper season for sleep. Nothing more certainly destroys the constitution than late hours; which is one great cause why the countenances of the children of our nobility and gentry have such a pale and faded appearance. It is a great pity that a practice so destructive to health should be so much in fashion, that parents should for the sake of keeping fashionable hours, that is, turning day into night and night into day, willingly sacrifice the health of their children, ruin their constitutions, and bring on premature old age and decay. All animals except those that prowl at night, retire to rest soon after the sun goes down; from which we conclude, that nature also intended the human species to follow their example, in order that the irritability or preternatural excitement which supervenes after the mind and body have been fatigued by the light and labour of the day might be speedily allayed: for I am convinced, that it is from the early hours of sleep, which are the most sweet and refreshing, that the re-accumulation of muscular energy and nervous excitability takes place, and the consequent restoration to strength which the body had lost by previous exercise. Sleep has been named the "chief nourisher in life's feast;" but how few find it such? and how

can it be otherwise, if we consider the pernicious custom of drinking strong tea or coffee at a late hour, and eating heavy hot meat suppers still later? Can it be a matter of surprise if their nights are uneasy, and their sleep troubled? The load and oppression on their stomach is a perfect purgatory to their wearied spirits, who are driven in frightful dreams through sunless abyses, or racked in the nightmare's appalling phantasmagona.

In order that sleep may prove refreshing, it is necessary to take sufficient exercise in the open air during the day; to take a light supper, or none at all; to retire to rest at ten o'clock at night; to sleep on a hair mattress, with a light covering of bed-clothes, in a room freely ventilated. We seldom hear the laborious peasant complain of restless nights. It is the indolent, the slothful, and the glutton, who are the miserable subjects of these complaints; whose greatest exertion is the necessity of moving from an easy chair to a bed of down, in which they lie soaking themselves for ten or twelve hours, until their minds become "dull as the lake that sleeps beneath the storm." Thus they drag on a wretched existence for a few years, until death suddenly overtakes them: so that to them we may apply the language which was formerly said of one of king David's generals, who, being killed by surprise, was lamented with that severe *epicedium*, "died ABNER as a fool dieth!"

COOKERY FOR THE SICK.

THE following pages contain cookery for the sick; it being of more consequence to support those whose bad appetite will not allow them to take the necessary nourishment, than to stimulate that of persons in health.

It may be unnecessary to advise that a choice be made of the things most likely to agree with the patient; that a change be provided; that some one at least be always ready; that not too much of those be made at once which are not likely to keep, as invalids require variety; and that they should succeed each other in different forms and flavours.

When articles are not wanted for immediate use, they may be kept in a state of perfect preservation by putting them, when boiling hot, into stone jars, and corking them tight with the best corks, and a piece of bladder over them, to exclude the action of the air: the jars should hold the quantity that may be required for present use; say, from a pint to three gallons.

It must be observed, that when the patient's pulse is above eighty, no wine should be added to the mixtures; and if any thing be required to flavour them, a little brandy will answer every purpose. When the pulse is low, wine is very proper in the quantities recommended. No vinegar to be employed, as lemon or lime-juice is preferable.

Water Gruel.

Take a spoonful and a half of fresh ground oatmeal, mix with it gradually a quart of river or spring water, and set it on a clear fire. When it is rising or just ready to boil, take it off and pour it from one basin into another backwards and forwards five or six times: then set it on the fire again till it is ready to boil, but before it does boil take it off, and let it stand a little in the saucepan, that the coarse husks of the oatmeal may sink to the bottom. Then pour it out, add a little salt and let it stand to cool.

When water gruel is made with grits it must boil gently for some time. The longer it boils the more it will jelly. But moderation must be observed in this respect, for if it be very long boiled and very thick it will be flat and heavy.

A mistaken idea very generally prevails that water gruel is not nourishing; it is, on the contrary, a light, nourishing food, good either in sickness or health, both for young or old.

Milk Porridge.

Make water gruel as above, and to two-thirds of gruel, when it has stood a little while to cool, add one-third of unboiled new milk. It may be eaten with or without salt.

Milk porridge is exceedingly cleansing and easy of digestion, and may be given to the weakest stomach that is able to receive food.

Another Way.

Stir a pint of water into three large spoonsful of fresh oatmeal, let it stand to clear, and then pour off the water. Put a pint of fresh water to the oatmeal, stir it up well, and leave it till the next day. Strain off the liquor through a fine sieve, and set it in a saucepan on a clear brisk fire. Add milk, in about half the quantity, gradually while it is warming; and when it is just ready to boil, take it off, pour it into a basin, and let it stand to cool. A little salt may be added.

This as well as the former porridge is very light, and proper for weak stomachs.

To prepare Indian Arrow Root.

Put a dessert spoonful of the powdered root into a basin, and mix with it as much cold new milk as will make it into a paste. Pour on to this half a pint of milk scalding hot, stirring it briskly to keep it smooth. Set it on the fire till it is ready to boil, then take it off, pour it into a basin, and let it cool.

This may be made with water instead of milk, and some cold milk mixed with it afterwards. If the stomach be very weak, it will be best without any milk.

Sago Jelly.

Soak a large spoonful of sago in cold water for an hour, then pour off the water, put a pint of fresh water to the sago, and stew it gently till it is reduced to about half the quantity. When done, pour it into a basin, and let it cool.

Sago with Milk.

Prepare a large spoonful of sago by soaking it in water as above, but instead of putting fresh water to it, put a pint and a half of new milk. Stew it gently till reduced to about half the quantity, then pour it into a basin, and let it cool.

Tapioca Jelly.

Wash two large spoonsful of the large sort of tapioca in cold water, and then soak it in a pint and a half of water for four hours. Stew it gently in the same water till it is quite clear. Let it stand to cool after it is poured out of the saucepan, and use it either with or without the additon of a little new milk.

Barley Gruel.

Put two ounces of pearl barley, after it has been well washed, into a quart of water. Simmer it gently till reduced to a pint, then strain it through a sieve, and let it cool.

Rice Gruel.

Let two large spoonsful of whole rice soak in cold water for an hour. Pour off the water, and put a pint and a quarter of new milk to the rice. Stew it gently till the rice is sufficiently tender to pulp it through a sieve, and then mix the pulp into the milk that the rice was stewed in. Simmer it over the fire for ten minutes, and if it appears too thick, add a little more milk very gradually, so as not to damp it from simmering. When done, pour it into a basin to cool.

Rice Milk.

To four large spoonsful of whole rice, washed very clean in cold water, add a quart of new milk, and stew them together very gently for three hours. Let it stand in a basin to cool before it is used.

Another way of making rice milk is, boiling the rice first in water, then pouring off the water and boiling the rice with milk. But too much of the nutriment of the rice is thus lost, and both the boilings are bad.

Ditto, the French way.

After washing the rice well, set it over the fire for half an hour with a little water to break it. Put to it then, by a little at a time, some warm milk, till it is sufficiently done, and of a sufficient thickness. Let it do slowly. Season it with salt and some sugar.

For children the sugar had better be omitted.

Ground Rice Milk.

Mix a large spoonful of ground rice into a batter, with two or three spoonsful of new milk. Set a pint of new milk on the fire, and when it is scalding hot, stir in the batter, and keep it on the fire till it thickens; but it must

not boil. It should be stirred to prevent its burning. Cool it by letting it stand in a basin before it is eaten.

Millet Milk.

Wash three spoonsful of millet seed in cold water, and put it into a quart of new milk. Stew it gently till it becomes moderately thick. Cool it by letting stand in a basin till wanted for use.

The preparations which require some time in the doing, will also require the precaution of being stirred, to prevent their burning. But if they are done as directed, gently, and consequently set over the fire, not immediately upon it, a moderate stirring now and then will be sufficient.

Whey.

Take a quart of new milk, before it is cold, and put in as much runnet as will turn it to a clear whey. Let it stand till it turns properly, and pour it off through a cheese-cloth without pressing the curd, that the whey may be the purer. It may be drank cold, or just warmed by setting it before the fire for a little while.

If new milk cannot be procured, other milk must be warmed to the degree of new milk.

Pearl-barley Water.

Set an ounce of pearl-barley, with half a pint of water, upon the fire, till it is hot, to clean it. Pour off the water, and put a quart of fresh water to the pearl-barley. Let it simmer for an hour. If it appears to be too thick, add more water, but let it be warm, as any quantity of cold water would damp it too suddenly, and thus tend to spoil it.

Apple Water.

Slice two or three spirited ripe apples, according to the size of them, into a jug, and pour on them a quart of scalding hot water. Let this stand till cool or cold, and it will then be fit for use.

The apples should not be pared, as it takes off from the spirit of them.

Toast and Water.

Toast a moderate sized piece of white bread quite dry, and of a very dark brown colour; put it into a jug, and pour water upon it. Let it stand an hour before it is used.

A Broth that will keep.

Put six or eight pounds of lean beef, a knuckle bone of

veal, and four or six shanks of mutton, and cover with a coarse crust, or strong paper, or if baked at home covering it with a dish will be sufficient; bake it till the beef is sufficiently done for eating, with no more water than will just cover it. When cold, cover it close, and keep it in a cool place. When you use it, give what flavour to it that is approved.

Broth of Mutton, Beef and Veal.

Take four pounds of lean beef, two of scrag of veal, and two of scrag of mutton, a few sweet herbs, and a few pepper-corns, boil them in two gallons and a half of water; simmer till it is nearly half reduced. When cold clear off the fat, an onion or two may be added if approved. It should be kept covered in a cool place.

A very Nourishing Broth.

Boil the chump end of a loin of mutton cleaned from the fat, with a large handful of chervil, in two quarts of water till it is half wasted, take off part of the fat when it is cold. Any other herbs or roots may be added. Take half a pint three or four times a day. This is good in any kind of weakness.

A quick made Broth.

Cut a steak or two from a loin or neck of mutton, take off the fat and skin, beat it well, set it on the fire with a pint of water, and cover it close, put in a bit of thyme and parsley, and if approved a slice of onion. Boil it quick and skim it well; keep it covered, but if likely to be too weak take the cover off. Half an hour will be sufficient to complete the whole process.

Chicken Broth.

Cut a chicken or an old fowl in half or in quarters, after taking off the skin and rump, put it into a quart of water, with a blade of mace, a slice of onion, and eight or ten white pepper-corns. Simmer it till all the goodness is extracted. Beat a quarter of an ounce of sweet almonds with a tea-spoonful of water till it is fine, give it a boil up in the broth, strain it, and when cold take off the fat.

When you have taken off the fat from any kind of broth as clean as you can with a skimmer, if any still remains, it may be removed by laying a bit of clean blotting paper on the broth when in the basin, which will take up every remaining particle.

Broth from Calves' Feet.

Boil two calves' feet in a little more than three quarts of

water till it is half wasted; strain and set it by; before it is used take off the fat, put a large tea-cupful of the jelly into a saucepan, with a large spoonful of sweet wine, sugar and nutmeg to the taste, and heat it till it is ready to boil, then take a little of it out and beat into it by degrees the yolk of an egg, with a bit of butter the size of a nutmeg; stir it all together, but do not let it boil. Grate a bit of fresh lemon-peel into it.

Another way.

Boil two calves' feet, a quarter of a pound of veal, the same quantity of lean beef, a good crust of bread, a blade or two of mace, half a nutmeg sliced, with a little salt, in rather less than a gallon of water, till reduced to half; strain it, and when cold take off the fat.

Shank Jelly.

Put twelve shanks of mutton to soak in water four or six hours, then scour them well with a hard brush, till they are very clean. Lay them in your saucepan, with three or four blades of mace, a large onion, about twenty Jamaica pepper-corns, and double that quantity of black, a bundle of sweet herbs, and a crust of bread toasted very brown and hard, but not burnt. Pour over them three quarts of water, and set them on a hot hearth, or over a slow fire, close covered; let them simmer very gently for five or six hours, then strain it off, and keep it in a cool place.

If approved of, the addition of a pound of beef, will much improve the flavour. This is remarkably strengthening to persons who are weak.

Another Jelly.

Another similar jelly may be made, by allowing two cow-heels, or three calves' feet, or five sheeps' feet, or fifteen mutton shanks, to three quarts of water. Stew these no longer than till you have drawn off a good jelly, which in these proportions may be done without stewing the feet quite down. Strain it off, and when cold take off the fat.

It may be cleared with whites of eggs, and strained through a jelly bag, or used without at pleasure.

Orange or lemon juice, or wine, and sugar, may be added, as is suitable to the case of the patient.

Jelly of Hartshorn Shavings.

To two ounces and a half of hartshorn shavings put a pint of water, simmer them till you have a good jelly, but do not

overdo them. Clear and flavour it as directed in the preceding article, or as most approved by the patient.

Jelly of Isinglass.

To a pint of water, add an ounce and a half of isinglass, following the directions given in the last article. This is a very strengthening jelly.

Jelly of Arrow Root.

It is necessary to be cautious in purchasing this article, it being counterfeited by unprincipled people, and vended by many who look only to an advanced profit; those who wish to have it genuine should purchase it of a chemist of known respectability, the counterfeit being very pernicious; if genuine, it is very nourishing, especially for those whose bowels are weak.—Put into a saucepan half a pint of water, a glass of good white wine, or a spoonful of brandy, grated nutmeg, and fine sugar; boil it up once, then mix it by degrees with a small spoonful of arrow-root previously rubbed smooth in a little cold water; then return it into the saucepan, stir it well, and boil it about four minutes.

Gloucester Jelly.

Take pearl-barley, hartshorn shavings, eringo-root, rice and sago, of each an ounce; simmer them with three pints of water till reduced to one, then strain it. When cold it will become a strong jelly, give a tea-cupful of it, dissolved in broth, milk or wine, in change with other nourishment.

Jelly of Tapioca.

Use the largest sort, wash it two or three times in cold water, and soak it five or six hours in fresh water, then simmer it in the same water till it is quite clear; let a bit of lemon-peel be simmered with it. It will thicken very much; when used add lemon-juice, wine and sugar.

Beef Tea.

When you have sliced half a pound of lean juicy beef into small thin slices, pour on it half a pint of boiling water. This tea when cold enough, may be drank, without boiling. A little salt may be added.

Another way.

Cut a pound of lean beef into thin slices, simmer it about twenty minutes; when it comes to the boil, skim it well. Season as approved, but in general salt is only used.

Chicken Panada.

Boil a chicken, till about three parts done, in about a quart of water, more or less according to the size; then take off the skin, when cold cut off the white meat, and pound it to a paste with a little of the water it was boiled in, in a marble mortar: season it with salt, a very small quantity of grated nutmeg, and the least bit of lemon-peel. Let it boil gently for a few minutes, till of the consistency you wish. It should be tolerably thick, though not so much so but that it may be drank.

This is very supporting to invalids, and conveys great nourishment in small compass.

Panada.

Put a little water in a small tin saucepan on the fire, with some sugar, and a glass of white wine, grate in a very little nutmeg, and a small piece of lemon-peel, in the mean time grate some crumbs of bread. The moment it boils up put the crumbs in, keeping it still on the fire, and let it boil as fast as you can. When of a thickness just proper to drink, it is done.

Another Panada.

Follow the directions given in the preceding article, but instead of a glass of wine, put in a tea-spoonful of rum, and a bit of butter, with some sugar. This is much admired for its pleasantness.

Another Panada.

Put a bit of lemon-peel into the water, mix in the bread crumbs, and when it is nearly boiled enough add some orange or lemon syrup. You must be particular in putting in all the ingredients while it is boiling, and let them boil up; for if you add any after, the panada will not jelly, but will break into pieces.

A Restorative.

Bake calves' feet with a pint of water, and an equal quantity of new milk, to each foot, in a jar close covered, for three hours and a half. When cold take off the fat.

Whatever flavour is approved, may be given, by baking in it lemon-peel, mace, or cinnamon. Add sugar after. Give about half a pint twice a day the first and last thing.

Another.

Take six sheeps' trotters, a little cinnamon, and mace, a small piece of lemon-peel, a few hartshorn shavings, and a little isinglass, simmer all together in two quarts of water

till reduced to a quart; when cold remove the fat, give half a pint twice a day, warmed in a little new milk.

Another.

Boil an ounce of isinglass, thirty or forty pepper-corns, with a piece of brown crust of bread, in a quart of water till reduced to a pint, then strain it.

A large spoonful of this may be taken in milk, wine and water, tea, soup, or in any other way; and is a very useful jelly, for keeping in the house.

Another.

A most pleasant draught may be made, by boiling a quarter of an ounce of isinglass in a pint of new milk till reduced to half; add a bit of sugar, or a bitter almond, as most approved.

This should be taken at bed-time, but not too warm.

Caudle.

Make a smooth gruel with grits, when sufficiently boiled, strain, and stir it frequently till it is cold. Add sugar, lemon-peel and wine, with a little grated nutmeg when it is used. Many choose a little brandy instead, or with the wine, and others prefer a little lemon-juice.

Another.

Put into a pint of fine gruel that is not too thick, while it is boiling hot, the yolk of an egg beaten with sugar, mixed with a little cold water, a glass of wine, and a little nutmeg. Mix it in by degrees. This is a very agreeable and nourishing caudle. Many people prefer gruel with a little table-beer, sugar, &c., with or without a little brandy.

Another.

Boil up half a pint of gruel, with a bit of butter the size of a walnut, a good spoonful of brandy, as much white wine, the same of capillaire, a little lemon-peel, and nutmeg.

Barley Gruel.

Wash a quarter of a pound of pearl-barley; then boil it in two quarts of water, with a stick of cinnamon, till reduced one half; strain it off, and return it into the saucepan with three quarters of a pint of port wine, and sugar to the taste. Heat it as wanted for use.

Barley Water.

Cleanse an ounce of pearl-barley by boiling it a few mi-

nutes in a little water, pour off the water, and pour on it a quart of fresh, simmer it an hour; and when about half done, put in a bit of fresh lemon-peel and a small bit of sugar. If you find it too thick, you may add sufficient water, to bring it to a due consistency. If agreeable lemon-juice may be added.

Another way.

Wash a handful of Scotch barley, simmer it gently an hour, in three pints of water, with a small bit of lemon-peel. This is less liable to nauseate the stomach than pearl-barley; but the other is most pleasant to drink.

Lemon Water.

Pare half a lemon, and slice it into a tea-pot, with a small bit of the peel, and a bit of loaf sugar, or a good spoonful of capillaire; pour on them a pint of boiling water, and stop it close for two hours. This is a most delightful drink.

An Agreeable Drink.

Pour a table spoonful of capillaire, and the same of the best white wine vinegar, into a tumbler of cold spring water. Fresh currants, or in jelly, or scalded currants, or cranberries, but especially tamarinds, make excellent drinks, either with or without sugar, as most agreeable to the palate.

Another.

A very pleasant drink may be made from cranberries: take the quantity of a tea cupful, and mash them with some cold water. In the mean time boil two quarts of water, with a table spoonful of oatmeal, and a little lemon-peel; then add the cranberries, with some fine Lisbon sugar, but not enough to overpower the fruit, which ought to have a sharp flavour, and a quarter of a pint of sherry (if the patient is not inclined to be feverish); in case of fever very little wine, or none at all will be more proper. Boil all together for half an hour, and strain off.

A Cooling Drink.

Get three ounces of sweet almonds, as fresh as you can, and one ounce of good melon seeds, bruise them in a marble mortar, adding to them by degrees a pint of cold water, and then strain them through a fine sieve. Bruise the remainder of the almonds and seeds again with another pint of water, adding to it as before, strain it off, and repeat the process a third time. Then pour all the liquor on the bruised mass, stir it well together, and strain clear off. You may safely

bruise half an ounce of sugar with it, though many people who are very weak, think it too heating. You may add for those who approve of it, a little orange-flower water.

Another.

Wash and cleanse well a quarter of a pound of whole barley in hot water, then boil it in five quarts of water till the barley opens, with half an ounce of cream of tartar. Then strain it. No other ingredient is requisite for this drink.

Draught for those who are Weak, and have a Cough.

Beat up a new-laid egg, and a quarter of a pint of new milk warmed, a table spoonful of capillaire, as much of rose-water, and a little grated nutmeg. It must not be warmed after the egg is put in. Let it be taken twice a day, the first and last thing.

Refreshing Drink in a Fever.

Boil an ounce and a half of tamarinds, three ounces of currants nicely washed and picked, and two ounces of raisins stoned, in three pints of water, till nearly half wasted. Strain it, and lay in a bit of lemon-peel for about an hour, then take it out, or it will give it a bitter taste.

Another.

Put into a stone jug, a little tea-sage, two sprigs of balm, and a little sorrel, having first washed and dried them; peel a small lemon, slice it, and put it in with a small bit of the peel; then pour on it three pints of boiling water, sweeten it moderately, and cover close.

Another.

Wash an ounce of pearl-barley very clean; shift the water twice, then put in three pints of water, an ounce of sweet almonds beat very fine, and a small bit of lemon-peel; boil it till the liquor is very smooth, then add a little capillaire and syrup of lemons.

Toast and Water.

Toast a thin piece of bread, at a distance from the fire, till very hard and brown, but not the least burnt; then put it into a jug of cold water, and cover it close, let it stand an hour before it is used. The water will be of a fine brown colour if properly made.

This is of particular use in weak bowels, and by the addition of a small portion of brandy is a very proper drink, when the bowels are disordered.

Orgeat for Invalids.

Beat two ounces of sweet almonds, and a bitter almond or two, in a little orange-flower water; then pour a pint of milk, and as mush water mixed together, into the paste, sweeten with sugar or capillaire. This is an excellent drink for persons who have a tender chest; and is highly beneficial in the gout, and with the addition of half an ounce of gum arabic, tends much to allay the painfulness, and attendant heat.

Half a glass of brandy should be added if thought too cooling in the last-mentioned complaints, and the glass of orgeat may be set in a basin of warm water.

Orangeade or Lemonade.

When you have squeezed the juice, pour boiling water on a little of the peel and cover it close. Boil sugar and water to a thin syrup, and skim it well. When thoroughly cold, mix the infusion, the syrup and juice, with as much more water as will make it a rich sherbet, and strain it through a jelly bag; or it may be made by squeezing the juice, straining it, and adding capillaire and water.

Egg Wine.

Beat up an egg, and mix it with a little cold water; set on the fire a glass of white wine, half the quantity of water, and a little sugar, and grated nutmeg. When it boils mix in the egg by degrees, stirring it well all the time; set it on a slow fire again, and stir it one way about a minute, but do not let it boil, for if it boils, or the egg be stale, it will curdle.

Egg wine may be made without warming the egg, which makes it much lighter for the stomach, but it is not so pleasant to the palate.

Whey.

Whey is a very wholesome drink for hot constitutions, as it quenches thirst, promotes sleep, and is the most relaxing and diluting of all drinks, even dissolving and carrying off salts; it is likewise a most useful remedy in the hot scurvy.

Cheese whey is a most wholesome drink, particularly when the cows are fed on fresh herbage.

White Wine Whey.

Set half a pint of new milk over the fire, as soon as it boils up pour in as much wine as will turn it, and make it look clear; let it boil up, then take it off the fire and set it aside that the curd may settle, but do not stir it. Then

pour the whey off, and add to it half a pint of boiling water, and a lump of fine sugar. By this means you will have your whey perfectly cleared of all its milky particles, and as weak as you may wish to have it.

Butter Milk.

New butter milk is very cooling and moist, and an excellent remedy for a hot thirsty stomach, good for a hoarseness, and very beneficial in consumptive cases, hectic fevers, constipated bodies, ulcers of the kidneys, and the dry scurvy. When stale many prefer it as being lighter on the stomach, it is certainly then very serviceable to those who are troubled with great perspirations.

Dr. Boerhaave's Sweet Butter Milk.

Take milk from the cow into a small churn; one about the price of six shillings; begin churning in about ten minutes, and continue till the flakes of butter swim about pretty thick, and the milk discharged of all its greasy particles, appearing thin and blue.

Strain it through a sieve, and drink it as frequently as possible.

Rice Milk.

Boil a spoonful of ground rice, rubbed down very smooth with a pint and a half of milk, add a small bit of cinnamon, and of lemon-peel, with a little grated nutmeg; when nearly done, sweeten moderately.

Saloop.

Boil a little water, wine, and sugar, with a small bit of lemon-peel together; then mix in a little of the powder that has been rubbed very smooth, with a little cold water; stir it well together, and let it boil for a few minutes.

Asses' Milk,

Is far superior to any preparation made in imitation of it, and should always be preferred, where it can be easily obtained. It should be milked into a glass that is kept warm by being put into a basin of hot water.

The fixed air that it contains, is apt to give a pain in the stomach. Persons beginning to take it, should therefore at first take a tea-spoonful of rum in it, but it should not be put in till the moment it is to be swallowed.

Artificial Asses' Milk.

Boil a quart of new milk, the same of water, an ounce of

white sugar-candy, half that quantity of eringo-root, and the same of conserve of roses, all together till it is half wasted.

This is an astringent; the doses must therefore be proportioned to the effect, and the quantity in making to what will be used while sweet.

To make Coffee.

Put two ounces of fresh-ground coffee, of the best quality, into a coffee-pot, and pour eight coffee-cups of boiling water upon it; let it boil six minutes; pour out a cupful two or three times and return it again; then put two or three chips of isinglass into it, and pour one large spoonful of boiling water into it; boil it five minutes more, and set the pot by the fire to keep hot for ten minutes, and you will have coffee of a beautiful clearness. Fine cream should always be served with coffee, and either pounded sugar-candy, or fine sugar. If for foreigners, or those who like it very strong, make only eight dishes from three ounces. If not fresh roasted, lay it before a fire until perfectly hot and dry; or you may put a small bit of fresh butter into a preserving pan of a small size, and when hot, throw the coffee into it, letting it be cold before ground.

To Roast Coffee.

Take of butter the size of a walnut, and a tea-spoonful of sugar, which add to the coffee, taking care it is not overdone: what is not wanted for immediate use should be put into an air-tight vessel, kept in a dry place, and ground as it is wanted.

Coffee Milk.

Boil a dessert spoonful of ground coffee, in nearly a pint of milk, a quarter of an hour; then put into it a shaving or two of isinglass, and clear it; let it boil a few minutes, and set it by the side of the fire to clarify. This is very fine for breakfast; it should be sweetened with sugar of a good quality.

To make Chocolate.

Cut a cake of chocolate in very small bits; put a pint of water into the pot, and when it boils, put in the above; mill it off the fire until quite melted, then on a gentle fire till it boils; pour it into a basin, and it will keep in a cool place eight or ten days, or more. When wanted, put a spoonful or two into milk; boil it with sugar, and mill it well.

The Virtues of the Simple and Compound Medicinal Preparations of the Author.

The medicinal preparations and combinations, as well as their effects on the human body, have not only been accurately made up and observed by me in my extensive practice; but many medical men, who rank very high in the profession, are agreed as to their specific action and salutary virtues. No poisons enter into their composition, and they may be trusted in the hands of patients without any risk.

Their several properties may be seen by referring to them in the order they are given.

Alterative Medicine.

Acts by promoting all the secretions, particularly the secretions of the glands, mucous membranes, kidneys and skin. It is administered in cases of dry, scaly, cutaneous disease, rheumatism, gout, and other diseases attended with spasmodic affections of the muscles; also quinsy, croup, hooping-cough, and measles: the due action of the bowels being preserved by means of the ordinary vegetable purgatives. It is likewise employed in all those states of constitution requiring the action of an alterative, without that of purgative medicine, particularly for women during pregnancy, at their confinement, and when they are nursing. This medicine is unequalled for increasing the quantity and improving the quality of the milk in nurses, and in removing any constitutional maladies the child may inherit from its parents.

Alterative and Purgative.

Besides the action of the alterative above described, this medicine operates as a safe and effectual purgative, by increasing the secretions of the stomach and bowels, and promoting the peristaltic motion of the intestines. It acts powerfully when given in full doses, frequently repeated, as a sudorific, and increases the action of the whole absorbent and glandular systems of the body. Hence the value of this medicine in the treatment of scrofula and glandular diseases, dyspepsia, habitual constipation of the bowels, diseases of the liver, spleen and mesenteric glands, humid disorders of the skin; and, in short, all those complaints which so often arise from a derangement of the digestive functions.

Given in full doses at the commencement of attacks of fever and inflammation, it generally stops their progress by opening all the emunctories of the body. It is the most valuable remedy in the cure of cholera morbus, yellow, putrid and typhus fevers, liver complaints, atrophy, and most diseases of hot climates.

Alterative and Emollient.

In addition to the action of the alterative, this medicine acts as a demulcent, and is given in all those cases in which the alterative is employed, and a modified operation of the medicine is required; particularly in some cases of cutaneous disease, of the dry scaly character, upon which this medicine has a specific action, as well as in cases of pulmonic disease, to repress hectic fever, and promote expectoration of purulent matter from the lungs.

Alterative and Sudorific.

This medicine being a combination of the alterative, with a powerful sudorific and antiseptic, is extremely valuable in all cases where there is a putrescent tendency in the fluids or solids of the body, as in the advanced stages of fever, after due evacuations have been employed, and in cases of mortification of any part of the body. In short, it may be employed whenever a sudorific effect is required, and when the use of the vapour bath is inadmissible.

Antacid.

This medicine is administered to correct acidity of the stomach, which is frequently the most distressing symptom in derangement of the digestive organs. Besides its operation as an antacid, it strengthens the stomach, and effectually removes the cause of that morbid secretion, and may be relied on with as much certainty in removing acidity of the stomach, as the Peruvian bark in intermitting fever. The antacids generally given are soda and potass, which merely afford temporary relief by decomposing the acid with which they come in contact. And here I would observe, that the continued use of either of these alkalies, proves highly injurious to the system; they weaken the stomach, irritate the bowels, and give rise to calculi in the kidneys and bladder.

Antacid and Tonic.

This medicine acts powerfully in promoting the removal of scrofulous tumours, after a proper course of the alterative and purgative medicine; but as it is apt to occasion sickness or nausea of the stomach, head-ache, great temporary prostration of strength and depression of spirits, it should be applied very cautiously and only in small doses. Very large glandular swellings, in the course of a few days, become absorbed under the use of this medicine, which may account for the great constitutional disturbance it occasions.

Antipseudo Syphilitic.

In cases of syphilitic disease, after mercury has been administered, so as to affect the mouth for the length of time ordinarily deemed sufficient to effect its cure; and after the alterative and purgative medicine has been duly employed to remove the mercury from the system, should any of the symptoms of the original disease remain, this medicine may be employed to dispel them; but it should be used very cautiously, as it is liable to occasion giddiness and prostration of strength: it also removes strictures of the urethra, and is a valuable remedy in all cases of humid leprosy.

Antihæmorrhagic.

Is employed as a valuable remedy in all those diseases belonging to the order hæmorrhagia, or profluvia in Cullen's Nosology, as bleeding at the nose, spitting of blood, bleeding piles, excessive menstruation, dysenteria, diarrhœa, copious purulent discharges from abscesses seated in the lungs by expectoration, or in any other part of the body, especially those of a scrofulous character. This medicine also acts as a mild but effectual tonic, in raising a patient from a state of extreme debility, occasioned by either of the above discharges, and may be given with perfect safety, as it restores strength without increasing vascular action.

Tonic and Aromatic.

May be employed alternately with the alterative, to restore the tone of the stomach and bowels, and to increase the vigour of the constitution: it exhilarates the spirits, promotes appetite, and invigorates the frame. It is particularly serviceable in liver complaints, to restore the healthy action of the digestive functions, after existing obstructions have been removed; and generally in cases where a gentle tonic medicine is required, or the milder tonics are indicated.

Tonic, Aromatic and Aperient.

This medicine being the same as that just described, with the addition only of a saline purgative ingredient, may be employed under similar circumstances, except where a necessity exists for a more active aperient medicine, particularly after the administration of the alterative and purgative.

Tonic and Corroborant.

Is a medicine, as its name implies, of a most powerful tonic quality, and may be administered in all cases where the Peruvian bark and steel are ordinarily employed. It stimulates the nervous and vascular systems: for instance, in cases of intermittent and remittent fevers, in the intervals between the paroxysms, after proper evacuations to remove obstructions. This medicine given hot in a full dose, exerts a peculiar power in relieving the pain arising from difficult menstruation.

Tonic, Corroborant and Aperient.

This medicine being the same as the above, with the addision only of a saline purgative ingredient, may be employed under similar circumstances as its basis, except where a necessity exists for an aperient effect. From some trials which have been recently made of this and the foregoing medicine, in cases of true cancer, it promises to be a valuable remedy in mitigating the symptoms and alleviating the sufferings of the patients, if not of curing that dreadful malady. It lessens the discharge, diminishes its fœtid smell, and certainly promotes the closing of the wound.

Tonic and Astringent.

In extreme cases of diarrhœa, arising from the relaxation of the mucous membrane lining the stomach and bowels, indicated by frequent alvine evacuations, mixed with a large quantity of mucus, this medicine affords relief, where the anti-hæmorrhagic medicine is ineffectual to arrest the diarrhœa: it is employed efficaciously in the latter stages of dysentery.

Tonic and Antibilious.

This medicine represses the increased secretion of bile, prevents seasickness, cures bilious attacks attended with vomiting of bile, and at the same time obviates the debility occasioned by either of the above causes.

Antacrid or Cancerous.

The medical gentlemen who have superintended my vapour-bath establishments in America for three years past, have been indefatigable in their endeavours to find out the specific virtues of untried herbs. Among their most valuable discoveries, is a medicine which has succeeded in their hands in curing several cases of true cancer. They have sent me the preparation for trial in this country, and I have successfully

treated three cases. I certainly think it promises to be the most active, the safest and best remedy hitherto employed, for curing that most formidable disease. The course to be pursued is, that the alterative or alterative and purgative medicine be taken; then the tonic and corroborant, or tonic, corroborant and aperient, as circumstances may render necessary, and afterwards the antacrid. The tumour or ulcer should be covered with appropriate plasters, until the cure is performed.

Antispasmodic and Expectorant.

This is the most powerful remedy in giving instantaneous relief in spasmodic asthma, in difficult breathing, in tic doloureux, epileptic fits, hysteria convulsions, and all spasmodic diseases.

Pectoral or Pulmonic.

This medicine is particularly useful in diseases of the lungs and bronchii; being of a demulcent and styptic quality, it tends to promote the healing of ulcers and to stop bleeding from the rupture of small blood-vessels; it also allays severe coughs arising from irritation in the wind-pipe, by sheathing the mucous membrane from the action of the external air.

Nervine and Vulnerary.

This medicine is used to allay nervous irritability, generally and locally, as in palpitation of the heart, hysteria, and nervous tremors. It acts specifically on the kidneys, and may be given with great benefit in the various diseases to which they are subject; such as chronic inflammation, ulceration, &c.; and in diseases of the rectum, as tumours, ulcers, and piles, I have found no remedy equal to it.

Alexipharmic.

This medicine acts as a diaphoretic, and expels morbid secretions from the system; it is also diuretic, anthelminthic, antispasmodic, antiseptic, and a powerful stimulant to the whole body. It is a valuable remedy in the low stage of fevers, especially in those of a lengthened kind, promoting perspiration, checking mortification, by supporting the strength and allaying irregular actions.

Deobstruent.

This medicine is given with the view of removing obstructions which have taken place in any vessel of the body; but particularly in the mesenteric glands, in the wasting diseases of children, and atrophy. It may be used also with great advantage in dropsy and hypochondriacal affections.

Uterine.

In all diseases of the uterus, such as chlorosis, fluer albus (or whites), and scirrhus in its incipient stage, this medicine may be administered with great benefit; and in the last-mentioned disease several remarkable cases have been cured by it, after every other remedy had failed.

In addition to the above remedies, the author has compiled a *Materia Medica* from the vegetable kingdom, excluding minerals, and every plant of a poisonous, narcotic, or corrosive nature.

There are also various preparations of pills, which act specifically on the different organs of the body. The aperient pills open the bowels gently, and are a safe and effectual laxative, acting without griping or

uneasiness. The hepatic (or liver pills) supersede the use of mercury entirely in liver complaints, and remove obstructions in the biliary ducts more effectually, without producing any of the injurious consequences so justly attributed to calomel, and other preparations of mercury.

The purgative pills are a safe and powerful cathartic, causing an increased secretion of the mucous membrane, and carrying off morbid accumulations without weakening the coats of the intestines.

There are several other preparations of pills, the names of which are emmenagogue, to remove obstructions in the uterus; nervine, to relieve and cure hysterics, and to allay nervous irritability, &c.

The various medications for the bath, are prepared and supplied to the vapour bath establishments. Their effects are—

1st. To act specifically on the glands, mucous membranes, skin, and other secreting organs.

2nd. To reduce acute inflammation, by removing obstructions, and drawing off the acrid serum from the blood.

3rd. To cure chronic inflammation, by subduing irritation, equalizing the circulation, and restoring elasticity and vigour to indurated glands, joints, and tendons.

4th. To cure nervous irritability and neuaralgia, which can be more certainly done by the medicines inhaled by the lungs, than through the medium of the stomach.

5th. To promote the healing of ulcers in the lungs, which can be more effectually accomplished by medication held in suspension by the vapour bath, and inhaled into the lungs, than by any other known process.

6th. To prevent discharges of blood from the lungs; in no instance has it failed.

7th. To exhilarate the spirits, and give tone and vigour to the whole body.

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WHITLAW'S
PATENT MEDICATED VAPOR BATH.

No. 280 Broadway, next to the Washington Hotel, and at 305 East Broadway, near Grand Street, New York.

THE Patent Medicated Vapor Bath, employed with the Vegetable remedies, is a powerful auxiliary in the cure of the under-mentioned diseases. The effects of the Vapor Bath are:—

1st.—To equalize the circulation of the blood, and hence to remove coldness of the hands and feet, and to lessen the determination or flow of blood to the head.

2d.—To promote sweat and re-establish insensible perspiration, and thereby to relieve symptoms of internal inflammation.

3rd.—To diminish nervous irritability; and in no instance has it failed to cure tic dolloureux.

4th.—To promote cutaneous eruptions, and remove diseases of the skin.

5th.—To remove the effects of mercury and lead from the system

6th.—To promote absorption of dropsical effusions.

7th.—To relieve difficulty of breathing, and hence to cure Asthma, and other diseases of the chest and lungs.

8th.—To strengthen the stomach, and impart a tone to the digestive organs, and cure dispepsia with its consequent disorders.

9th.—To promote the healing of Scrofulous and Chronic Ulcers.

10th.—To remove Gouty and Rheumatic pains and swellings from the joints, and cure Lumbago, Sciatica, &c.

11th.—The Quinsy—the bath has never failed to relieve it.

12th.—The Croup. It may be regarded as a specific.

13th.—The Hooping Cough. Gives great relief.

14th.—The Measles. No instance of death has taken place when the bath has been employed.

Mr. Whitlaw will receive patients at the establishment 28 Broadway, from 9 A. M. till 2 P. M., and at 305 East Broadway, from 3 till 5 P. M. Those who are afflicted with consumption, bronchitis or disease of the windpipe and asthma, should call early, while the warm weather may be availed of to co-operate with Mr W's medication. Sept 3