

**The American botanic medical family instructor : founded upon the theory and practice of vegetable medicines, with remarks on the different practices of medicine, and natural laws : anatomy and physiology, and the preservation of health, a description of medical plants, and the art of compounding medicines, and a general treatment of diseases, compiled from various sources, particularly designed for family use / by Jeremy Taylor.**

### **Contributors**

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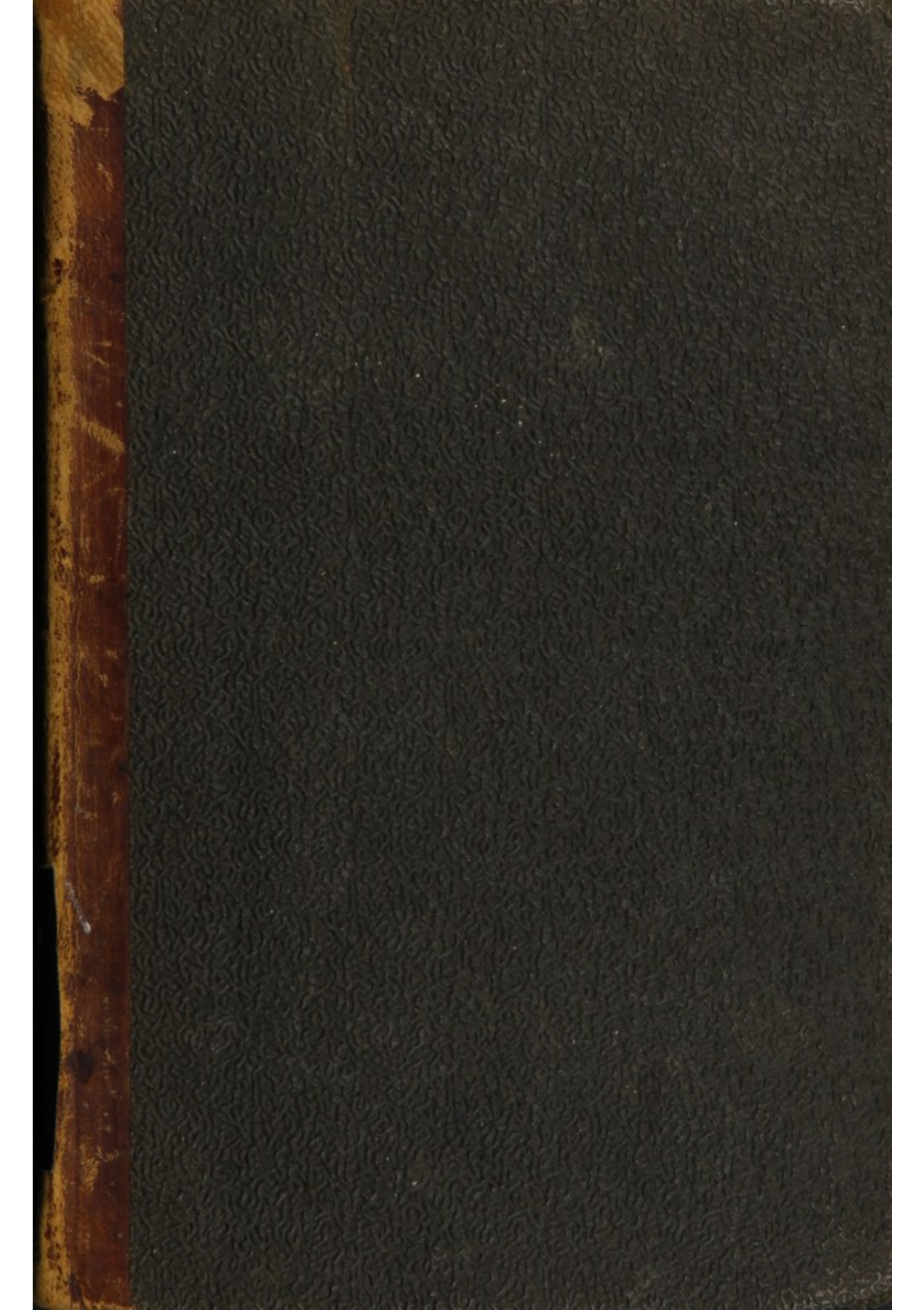
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THE  
AMERICAN BOTANIC MEDICAL  
**FAMILY INSTRUCTOR,**

FOUNDED UPON THE THEORY  
AND PRACTICE OF

**VEGETABLE MEDICINES,**

WITH REMARKS ON THE DIFFERENT PRACTICES  
OF MEDICINE, AND NATURAL LAWS.

ANATOMY AND PHYSIOLOGY,  
AND THE  
PRESERVATION OF HEALTH,

A DESCRIPTION OF MEDICAL PLANTS, AND THE ART OF COMPOUNDING  
MEDICINES, AND A GENERAL TREATMENT OF DISEASES,  
COMPILED FROM VARIOUS SOURCES, PARTICULARLY  
DESIGNED FOR FAMILY USE.

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BY JEREMY TAYLOR.

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NEW-LONDON:  
PUBLISHED BY TAYLOR & MILLER.  
1843.



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Truth you should teach, to save a sinking land;  
All fear, none aid you, and few understand.

"Do not counteract the living principles."—NAPOLEON

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BY JEREMY TAYLOR

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## PREFACE.



In presenting to the public a work of this character, on which without doubt, will be thrown the epithets of innovation and quackery, by a certain class in community, it may be proper to state, what led to its publication, and the end the author designs to accomplish by its general introduction in community. The first, and great object is to remove the prejudice existing against the use of Vegetable Medicine, caused by the untrue epithets thrown out against it by designing men; and that every individual may become acquainted with his own system, and how to preserve health.

Secondly, that people in general may become acquainted with medical roots and herbs, their properties and use, and their administration in different cases of disease; and to condense the mass of information on those subjects in such a manner, as to afford the work so low, that every individual may obtain it.

In early life I was much afflicted with disease, and several times brought near the grave by the regular faculty, and the use of their poisonous drugs. Despairing of ever obtaining any relief from their cruel and unnatural treatment, at the age of twenty, I abandoned the use of mineral medicines and resorted to such herbs as were used by the old women to remove such difficulties as I was afflicted with. I found them much more effectual in removing the pains to which I was subject. This led me to suppose that there might be found, in the Vegetable Kingdom, a remedy for all diseases. On enquiry, I found that a system of practice had been established, entirely vegetable, by Dr. Samuel Thomson, about thirty years previous, denominated the Thomsonian Practice of Medicines. I was told that Dr. Thomson was a Steam Doctor, had a patent on steam and Lobelia; that he sold patent rights to ignorant people, that gave them a right to doctor on the Steam plan; and these ignorant men were going about steaming people, burning them up with Cayenne pepper, vomiting or poisoning them to death with Lobelia! This may appear somewhat singular to the reader, as the system has become more popular. But volumes would not contain all the false assertions that have been made against this practice of medicine. It could not be expected that a favorable opinion would have been formed, from this knowledge of the subject. It might justly be supposed that my mind



was locked up in prejudice against such horrible quackery, as they were pleased to call it. I even felt a sort of indignation towards any one that dared speak in its favor. I meet almost every day, persons who have similar prejudices, all for the want of proper information.

But on further inquiry, I formed a more favorable opinion, and soon became willing to investigate the subject for myself. For this purpose I procured such periodicals and books as I then could obtain; I found many principles in the Botanic Theory that appeared to be perfectly consistent and rational, but was not willing to become experimentally acquainted with its practice. As many at the present time do, I halted between two opinions; and it was not until I was brought, as it were, to choose life or death for a lovely child of mine, that I was willing to take a decided stand in its favor.

During the time that the Scarlet Fever raged in our city to an alarming extent, sweeping as it spread, whole families of children. Living a little retired from the center of the city when the fever commenced its destructive work, I had an opportunity of observing its progress; great numbers fell victims to its ravages, notwithstanding we had eight regular scientific physicians; their poisonous drugs did not seem to have the desired effect, some died with their tongues swollen out of their mouth; others with their throats eat through with canker.

Here I wish to say a word to mothers who have a lovely family of children, on whom they place their worldly hopes:—If you wish to preserve their health and save their lives, acquaint yourselves with such simple remedies as will relieve the diseases to which they are subject, without injuring their constitutions, and teach them to observe the natural laws; without which health cannot be sustained.

These sad spectacles taught me that I must look to some other source for relief from the approaching malady: consequently, I made inquiries respecting those cases treated by the Botanic Physician, and found he had wonderful success. Now came the struggle—to have a regular physician, was almost certain death; and I trembled at the thought of having a steam doctor. But I soon came to the conclusion, that when the monster disease should come with his icy fetters, to bind and withhold from the little cherub that principle, on which depends the liberty of life, he should not be aided by poisonous drugs; not so. When he came, the Botanic Physician was called, who administered the healing balm, and in four or five days my child was restored to health; here I saw the difference between pure vegetable medicines and poisonous drugs. This caused me to take a decided stand in its favor. I have been more particular in giving the reader the cause of my prejudice, and the manner in which it was removed, because I believe there are thousands who have



similar prejudices, all for the want of proper knowledge on this subject.

These circumstances led me to a more thorough investigation of the Botanic Practice; I soon found the principles on which Dr. Thomson had founded his system, were irrefutable, and all that prevented its benefiting the human family, was a deep-rooted prejudice existing in the minds of most people in community. I observed that those who had tested the virtue of vegetable medicines, did not adopt the use of minerals again. Seeing the great benefit that others received from these medicines, I was led to make a trial of them on my own system, and found them fully adequate to remove the difficulties that I had so long been afflicted with. This, together with the benefits my family had received, gave me the most implicit confidence in the use of Botanic Medicines. I soon became enabled to remove the worst forms of disease, that the community is subject to; this led me to suppose that every individual with common perceptibilities and proper knowledge, would not only be capable of removing his own maladies, but might be useful also to his fellow beings around him.

The more I investigated the Botanic Theory, the more simple and rational it appeared. I found it might be comprehended by any individual of ordinary capacity, although he may not have a liberal or what is termed a college education. I became convinced that if people had proper medicines put into their hands, with suitable directions, they would be enabled to remove most, if not all curable cases of disease with which the human family is afflicted. Being desirous that others should share in the great benefits which I had derived from their use, I concluded to engage in the business of collecting and compounding such vegetable medicines as might be safely used by every family. In order to obtain requisite information on this subject, I procured all the Botanic and many other works that had previously been published; they form a beautiful little library, containing 5 or 6,000 pages filled with interesting matter, which I believe is only second in importance to a knowledge of salvation, to the human family. Many of them were written by some of our most able men, who were assisted by extensive study and long practice; they have given us such principles and theories, as are calculated to store the mind of the physician with useful and necessary knowledge, but are not suitably adapted for family use.

These works contain a history of Medical Science, Anatomy, and Physiology; the ill effects of the Old School practice, and the deleterious effects of poisonous medicines; the different opinions of medical writers on disease, &c. Botany, and a numerous list of compounds, together with theory and practice of medicine; all of which, every individual has not time to study;



neither is it necessary that he should become acquainted with all those technical terms, that are used in Botany, Anatomy, and are too frequently made use of in medical works. It is only necessary that people should be acquainted with those remedies that have been tested by experience, and are known to be a preventive as well as a cure of disease, to be enabled to apply them with success.

I gave my attention to the study of Medical Botany, in order to obtain a knowledge of those medical plants which are found in our own country, with a view of engaging in the business of collecting and preparing vegetable medicines; in order that physicians and families in my own State might obtain those that were pure, and gathered fresh every year, knowing from experience, that medicines are often adulterated, and those that are obtained from abroad, are often kept a long time, which very much impairs their strength. In connection with Dr. Wm. H. MILLER, who I would say has assisted me in preparing this work, I engaged in collecting such medicines as could be found in the surrounding country; I found that the hills and vallies abound with medical plants and roots, sufficient to supply all our medical wants.

In my travels I found that people in general very imperfectly understood the true nature and cause of disease; and that if proper medicines were put into their hands, with printed directions for use, they had too little confidence in themselves to persevere sufficiently to arrest severe attacks. I found them anxious to get information how to preserve or restore health. A great call was made for books that would give such information; and not being able to find such as were wanted, as most of the hitherto published works are not suitably adapted for family use, or come at so high a price, that a large portion of the people are not able to purchase them. In order to supply the demands for a cheap medical work, adapted to the capacity of the common people, that would instruct them in Physiology sufficiently to enable them to preserve or restore health, I have prepared the following work.

In order to render it more useful, as well as more acceptable, to the intelligent part of mankind, I have devoted a portion of it to Anatomy and Physiology, or the structure and functions of the human system. While a larger portion is devoted to the means to be used in the preservation and restoration of health; and have in the treatment of disease recommended some of the most approved medicines, and have given such directions as seemed necessary for their safe administrations. Though I have endeavored to render this treatise plain and useful, yet I found it impossible to avoid some terms of art; but they are generally explained, or are such as most people understand; I have endeavoured to conform my style to the capacities of mankind in



general. I am aware it will be said, that, in diffusing medical knowledge among the people, it will induce them to tamper with medicine, and trust to their own skill, instead of calling a physician in cases of sickness; the reverse of this, however, is true. Persons who have the most knowledge in these things, are commonly most ready both to ask and follow advice when it is necessary. Those who tamper the most with medicines, generally know the least of their properties, or their effects on the system. They are daily swallowing medicines, the properties of which they know nothing, except by reputation.

If men will act without knowledge, it is certainly rational to afford them all the light we can, and not leave them entirely in the dark. The veil of mystery which hangs over medical science renders it not only a conjectural, but even a suspicious art. It has long ago been removed from the other sciences, which induces many to believe that medicine is a mere trick, and that it would not bear a candid and fair examination. Disguising medicine not only deters its improvement, as a science, but exposes the profession to ridicule, and is injurious to the true interests of society; an art founded on observation, can never arrive to any high degree of improvement, while it is confined to a few, who make a trade of it.

The persevering efforts of a few ingenuous and sensible men have done more in a few years past, towards the improvement of medicine, than the faculty have for ages. Any man can tell when medicine gives him ease as well as a physician; and if he only knows the name and dose of the medicine, and the nature of the disease, he can as effectually remove it. The appearances of mystery in the conduct of physicians, not only renders them suspicious, but lays the foundation of quackery, which is the disgrace of medicine. No two characters can be more different than the honest physician, and the quack; yet the line between them is not sufficiently apparent; at least, it is too fine for the general eye to perceive. But few persons distinguish sufficiently between the conduct of that man who administers simple medicines, well known to his patients, and him who writes his prescriptions in mysterious characters and an unknown tongue; the honest physician needs no disguise,—but the sole dependance of a scientific quack, rests entirely upon his secrecy.

The most effectual way to destroy quackery in any art of science, is to diffuse a knowledge of it among the people; did physicians write their prescriptions in the common language of the country, and explain their intentions to the patient, as far as he could understand them, it would enable him to know when medicine had the desired effect; it would give him perfect confidence in the physician, and he would dread and detest every man who attempted to cram poisonous or secret medicine down



his throat. The practice of writing their prescriptions in unintelligible language is certainly dangerous. However capable physicians may be of writing latin, it is certain that apothecaries are not always in a condition to read it, and dangerous mistakes in consequence of this often happen. But suppose the apothecary ever so well able to read the physicians prescriptions he is sometimes absent, or otherwise employed, and the business of making up the prescription, is left entirely to the apprentice ; in which case our lives are actually entrusted to an idle boy, who not only has the chance of being very ignorant, but likewise giddy and careless. Mistakes will sometimes happen in spite of the best of care ; but where life is concerned, every means ought certainly to be taken to prevent them. For this obvious reason, prescriptions of the physician, instead of being couched in a dead language, ought, in my opinion, to be conceived in the most plain and common terms imaginable ; or rather, medicines ought not to be of a poisonous nature.

Notwithstanding medicine has been long known as a science, it is obvious that many of its important purposes to society have either been overlooked, or very little attended to. The cure of disease is a matter of great importance ; but the preservation of health is of still greater. This is the concern of every man,—and surely, what relates to it ought to be rendered as plain and obvious to all as possible. It is not to be supposed that men would be upon their guard against disease, who are totally ignorant of its cause. Men of every condition in life, might avail themselves of such a degree of medical knowledge as would enable them to avoid the dangers peculiar to their respective stations, which is much easier than to remove their effects.

Medical knowledge, instead of being a check upon the enjoyments of life, teaches them how to make the most of them. He who is acquainted with the constitution of the human body, and with the laws which regulate its action, sees at once his true position, when exposed to the cause of disease, decides what ought to be done, and therefore feels himself at liberty to devote individual attention to those duties necessary to preserve health. But it is far otherwise with the person who is destitute of this information,—uncertain of the extent and danger, he knows not which way to turn. He lives in fear of mortal diseases, and in his ignorance, resorts to hurtful precautions, to the neglect of those he ought to use. It is ignorance, therefore, and not knowledge, which renders an individual full of fancies, and robs him of his usefulness.

People who have had the most extensive opportunity of forming an opinion of this subject from experience, bear unequivocal testimony to the advantages which medical knowledge confers in saving health, life, time and anxiety. The peculiar advantages of this kind of knowledge, are, that it would enable



its possessor to take a more rational care of his health ; to perceive why certain circumstances are beneficial or injurious ; to understand, in some degree, the nature of disease, and the operations as well as the agents which produce it, and of those that counteract it ; to observe the first beginnings of deranged functions in his own system ; to give his physician a more intelligible account of his train of morbid sensations as they arise ; and above all, to co-operate with him in removing the morbid state on which they depend, instead of defeating, as is now done, through gross ignorance, the best concerted plans for the renovation of health. It would likewise lay the foundation for the attainment of a more just, accurate, and practical knowledge of our intellectual and moral natures.

Let it not be supposed that medical knowledge is superfluous to the unprofessional reader ; for society groans under the load of suffering inflicted by causes susceptible of removal, but left in operation in consequence of our unacquaintance with our own system, and the effects of external objects. Every medical man must lament the ignorance so generally prevalent in regard to the simplest functions of the human system, and the want of the judicious co-operation of nurses in the care and cure of the sick.

Were the common people of society better acquainted with the functions of the human body, and the laws by which they are regulated, many of these anomalies in practice would disappear, the sources of much suffering would be dried up, and the happiness of the community at large be essentially promoted. Medical men would no longer be consulted so exclusively for the cure of disease, but would be called upon to advise regarding the best means of strengthening the constitution, from an early period, against any accidental or hereditary susceptibility which might be ascertained to exist. More attention would be paid to the preservation of health than there is at present, and the medical man would then be able to advise with increased effect, because he would be proportionably well understood, and his counsel, so far at least, as it was based on accurate observation, and a right application of principles would be appreciated. It is true, that as yet, medicine has been turned to little or no account in the way of directly promoting the physical and mental welfare of mankind.

It may be said that the working class in community have not sufficient time to inform themselves on medical subjects ; but I believe that this, or any other branch of useful knowledge may be obtained by every individual, if they would devote their leisure hours to study. The plan I adopted, after I became interested in the Botanic practice of medicine, was, to labor ten hours,—study four or five, reserving only nine for sleep and all my domestic affairs. This wholly occupied my time ; I had no waste moments, my mind was constantly revolving the subject



of my study, while at work, being a mechanic. In this manner time passed pleasantly: I had none of those lonesome hours, which are often experienced when we have no important subject to interest the mind. But what progress I have made, being thus limited in my researches for medical knowledge, is left to the reader to judge for himself, I am confident, however, that but few individuals would labor under greater disadvantages than myself. If they would take hold of this subject with interest, they might in a few years acquire a correct knowledge of it, even if less time should be spent in study. Mr. Burrett, the learned blacksmith, who has at his command, more languages than any of the most scientific scholars the world ever produced, (had obtained at his age,) acquired them by a similar course of study.

The great object in publishing this work, is to show, that true medical science is so simple and intelligible, that almost every individual may readily comprehend it; and endeavor to get the community interested on this subject, as it pertains much to their happiness. I do not wish, however, to have any person adopt the principles which it contains, any further than they are found to be in accordance with reason and sound judgement; for truth is simple on all subjects, and may be easily understood. I am willing to risk the rise or fall of the principles it contains, and the remedies it prescribes, upon their own benefits to community when properly understood.

I am aware that prejudices exist against an unprofessional man, attempting to make any improvement, in the arts or sciences, especially those of long standing. But I apprehend that the time is not far distant, when every man will be appreciated according to his real worth in community, whether he rises from the obscure plough boy, or a mechanic's apprentice, or whether he graduated at some literary institution of our land.

My object is not applause; but to lay down the theory and practice of medicine in so simple form, that it may be properly understood; neither have I been particular as to style, but have couched it in such language, and arranged it in such a manner as I thought best suited for family use.

I do not pretend to have discovered any new theory, but have collected from various sources, such information as I thought would be interesting and useful to every individual. The theory given in this work, is in accordance with that laid down by Tower, Gates, Robinson, and Draper, in their lectures on the Botanic theory and practice; followed by some principles selected from Combe on the Constitution of man.

The principles of Anatomy and Physiology, are in accordance with the most approved authors of the day: and laid down in



plain simple language, and given in plain English those technical terms, so extensively used in most works on anatomy, which render them unintelligible to the greater portion of community; avoiding an endless list of speculative theories, of medical writers in different ages of the world, which are so commonly used in medical works. In avoiding these, and many other quotations, I have been able to give a greater amount of practical information, than has hitherto been published in so small a work; I have laid down no principles or theories, but those that are based on simple truths;—neither is there any medicine recommended, or prescription given, but what has been tested by experience, and known to accomplish the desired end.

In the arrangement of this work, there has been no systematic mode adopted; the object has been to make it interesting and useful to those who may obtain it. It will be perceived that there is given in the introductory remarks, the principles on which the Botanic Practice is conducted; followed with remarks on the necessity of observing the natural laws. For without strict observance of the physical and organic laws, good health cannot be enjoyed. Also a description of various organs of the system, and the means of preserving their health, believing that it is much easier to preserve health while we have it, than it is to restore it when once lost.

A description of medical plants is given with their properties and use, with which every individual should become acquainted; also a list of compounds. I do not expect, however, that every individual will attempt to compound medicine, for, as a general thing, they can be obtained cheaper than each individual could compound his own. But I would advise every individual not to take any medicines, except he knows their properties, and the effect it would produce on the system. In the description of plants, and in all of the receipts for compounding, great care has been taken to give the properties and use of each article, that people may know the exact properties of each article of medicine that they use. If this were the case, we should not see people swallowing every medicine that is recommended, or cracked up in some newspaper, the actual properties of which they know nothing; consequently, they cannot tell whether they are adapted to their disease or not. Medicine taken in this way frequently does more hurt than good.

After giving the above arrangement, which has been obtained from various sources, and stripped of all those mysterious and high sounding phrases, which render those subjects unintelligible to a greater part of community, I have given the causes, symptoms, and treatment of those diseases which most commonly infest our land, and nation; and the application of vegetable medicines for their removal, according to the Botanic Practice of medicine. Those medicines only are recommended which have been successfully used in the treatment of disease.



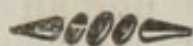
My readers will excuse the length and plainness of my remarks; I have only given such information as I deemed necessary in order that the reader might get a general idea of the work; and if errors, in language, or otherwise, are found, they will, I presume be over-looked by the reader;—for they will be aware that it has been no small task, to give in plain English, those technical and useless phrases, so much used in medical, and botanic works. Let it not be the first inquiry of the reader whether the author is a regular bred physician? or, whether he has been scientifically educated, as the phrase is used. But the question should be, is it such a book as every family needs; and if it should thus prove, each individual who obtains one, is respectfully requested to do what he can to induce others to share in its benefits.

I owe, as it were, my life and present state of health, under God, to the Botanic Medicine; and all that I can do in the cause, will but poorly repay for the benefits I have received. This system proffers great blessings to the human family; and I intend to spend the remainder of my days, whether they be few or many, in spreading its principles, and trying to ameliorate the condition of my fellow creatures. Those who obtain this work, and thereby become benefitted, will, I have no doubt, give it due credit and support. The object, however, is not dollars and cents, but a desire to benefit the human family. I intend to make greater researches yet, in nature's garden, and am in hopes to find out more perfectly, her simple ways of curing diseases. With these remarks the work is respectfully presented to the public for their candid perusal.

JEREMY TAYLOR.



## PART I.



### INTRODUCTORY REMARKS.

As the religion of the gospel is a dispensation of glad tidings to a wretched world, proclaiming through the death and resurrection of the Christian Messiah, a complete antidote for all moral disorders of the sons and daughters of Adam, the consideration of our highest interest should induce us to seek first, the kingdom of God and his righteousness. Next to the knowledge of salvation for our souls, is the knowledge of safe, certain, and efficient remedies for the disorders of our bodies. On medical subjects, speculation has succeeded speculation, theory has succeeded theory, experiment has succeeded experiment, and disappointment has succeeded disappointment. Visionary projects and promised remedies have all failed to fulfil the hopes of those who devised them ; disease has prevailed against men's wisest and most persevering efforts, and doctors and their disciples have been filled with despair.

When we consider that the science of Medicine has engaged the attention of some of the greatest men which the world ever produced, and that the sufferings of our fellow beings from disease, have called into action the best energies of the philanthropist, patriot and christian ; and the sagacity and ingenuity of mankind have been racked, and even tortured, in order to ascertain the primary causes of disease, and to devise adequate means for their effectual cure, without avail, prudence dictates to every one, that he should enter upon the investigation of this important subject with due caution and care.



But again : when we consider that nearly “four thousand years have elapsed,” and that “the science of medicine is yet in its infancy,”—disease and death raging with increased or unchecked violence—even among those, who, to all human appearance, have the most flattering prospects for health and life ; and that the charge cannot be brought to bear upon the character of the great Creator, inasmuch as the structure of the human body shows no necessity for disease or pain, despairing of all hopes from ever obtaining relief from our aches and ills by the science which has been so long a time advancing to little or no purpose ; yet the interests of suffering humanity forbid that the cries of the sufferer should pass unheeded, and the dictates of reason and experience tell us plainly, that we must look to some other source for relief from our miseries, than to the one which has so long been sought in vain.

It was remarked by Lord Bacon, that medical knowledge had not been advanced, because physicians reasoned too much in a circle, and not enough in a line. To this sentiment we certainly agree. If physicians engaged in the practice of medicine, have been unable to understand the true philosophy of the healing art, we cannot blame them ; and if they have in their researches, overlooked the truth, there is nothing criminal in this, although it may have been the source of much human misery.

We are not going to say but what there have been, and still are, many in the regular practice of medicine, for whom we ought to entertain sentiments of the highest respect. We know that there have been, and hope there still are, true philanthropists and lovers of truth in that profession, who were glad to know and receive the truth, let it come from what quarter it might.

The Medical Faculty, viewed in all the traits of its character, possess a mighty influence over the public mind, not only in medical affairs, but in all others. They are, or at least are regarded, as men of more learning than the principal part of community ; and



with a few exceptions they are men of wealth ; they are supposed also, to possess knowledge on which the health and lives of men are depending. Besides all this, it is an institution of long standing ; it boasts of every thing venerable in antiquity, and every thing lofty and splendid in intellect ; of every thing sublime in erudition, and every thing praiseworthy in benevolence.

An institution like this, one might suppose, had struck its roots to the centre, and that its branches had overshadowed the earth. We might well suppose such an institution would say to the curious mind of the self-taught investigator of the latent principles of nature, " Thus far shall thou push thy discoveries, and here shall thy proud course be stayed." It would say to knowledge while on its rapid flight to ameliorate the condition of man, " Turn in hither, and remain forever in the temple we have erected." It may with a good degree of accuracy, be compared to a brazen wall, whose top reaches the heavens, and all that is honorable is pretended to be entirely included within its own caverns ; and in this way an immoveable barrier is raised against any radical reform in the healing art ; if men are found who possess courage sufficient to approach and presume to examine any of its materials, or investigate any of its principles, would immediately be regarded as dangerous innovators, and expose themselves to the shafts of the vindictive displeasure of its adherents. The faculty are aroused from their tranquil repose, and form themselves in battle array ; they are instantly awakened from the slumbers of antiquated institutions, and girding themselves for the contest, go forth with untiring zeal.

Why, it may be asked, are physicians so alarmed ? Can it be that a tender regard for the good of mankind has inspired them with such insatiable fury ? Surely not ; for when men are engaged in promoting that object, a more judicious and humane course characterizes their conduct. Evidently, it is their own interest



for the craft, which has inspired them to contend with so much warmth against any innovation.

A great objection to a majority of the hitherto published medical works, is the too frequent use of technical terms, by which they are rendered unintelligible to people in general. We think extensive employment of technical terms in books which are intended for common use, is improper. If we should ask some eminent physician to give us in plain English, the meaning of those mysterious and high sounding names we see plastered on bottles, jars, gallipots and drawers, in a drug store or doctor's shop, it would be calomel, corrosive sublimate, arsenic, prussic acid, antimony, opium, deadly night shade, foxglove, nitre, saltpetre, &c. These are easily understood when given in English, and known by every one. Dr. Howard remarks, that professional pride and native cupidity, contrary to the true spirit of justice and christianity, have, in all ages and countries, delighted in concealing the divine art of healing disease, under complicated names, and difficult or unmeaning technical phrases. Why make a mystery, continues he, of things which relieve the distresses and sufferings of our fellow beings? A great responsibility must certainly be resting upon those who have been thus instrumental in concealing under a dead language, or by affected mystery, the knowledge of any thing so important to the world. A correct understanding of the best means of preventing sickness, and restoring health, is only second in importance to a knowledge of the christian religion. Every family has or may have a bible; and why not have a book on medicine, adapted to their capacity?

He farther remarks—had physicians made it their business to enlighten the world upon this highly important subject, instead “of darkening counsels with words without knowledge,” mankind unquestionably would not only have been familiar with all necessary technical terms, but they would also have been acquainted with, and known how to employ the best means of removing



their maladies. But this is not the case. There is scarce any subject on which people are not more generally informed, or familiarly acquainted.

It may be supposed that these are light assertions ; but we have the testimony of some of the most eminent of the faculty, of the deception which is often practiced on the credulity of the people. But the time has arrived when the people will have books on medicine which they can understand, and a mode of practice which they themselves can comprehend and apply, that they may no longer be obliged to go to the doctor for every dose of medicine which the exigences of sickness may require. It is the intention of the publishers, to furnish the public with such a book, founded on the Botanic theory and practice of medicine, introduced about forty years ago, by Dr. Samuel Thomson.

When we take into consideration the ills under which mankind labor, by various forms of disease, both natural and incidental, it becomes every patriot and friend of man to exert himself to mitigate, at least, if he cannot remove, their sufferings. The acknowledged deficiencies in the regular practice of medicine, for removing disease, has loudly called upon the friends of suffering humanity to investigate the cause of these deficiencies. And the result of this investigation has been the introduction of a system called the Botanic System of Medical Practice, on a plan entirely new, and independent of all others, which promises to mankind the happiest effects, and needs only to be known and tested, to prove to every candid mind, its utility ; a system simple in its principles, safe and sure in its effects, adapted to the situation and circumstances of mankind, being based on those truths which are immutable as the laws that regulate the motion of the heavenly bodies.

The science of Medicine has undergone various changes ; one theory after another has been established and destroyed to make room for another, for three thousand years, without any material improvement for the



better ; whereby the confidence of the people has been weakened, and their credulity imposed upon ; so that many have locked themselves in prejudice against the introduction of any new system, or despairing of help from any, have abandoned all. The question may be asked, “ Will not the Botanic System suffer the same fate ?” In order to give a satisfactory answer, let us examine on what principles these systems have been founded and maintained, and how far they will bear the test of a true and honest examination ; and what confidence those persons have had in the systems, who have enjoyed the best opportunities to judge of their merits. That the regular practice is founded in error, is evident by admitting poisons in their practice of medicine, as will be shown in our following remarks. They have been maintained by interested men, by obscuring their principles and works by technical phrases, so that mankind in general, have been wholly unable to examine their theories, and consequently unqualified to judge of their worth, or to detect their faults.

The best qualified and most successful practitioners, after spending their lives in investigating theories, and trying experiments in practice, have not been able to form any definite principles of the nature of disease, or any certain results from the operation of medicine ; and have come to the wise conclusion to take little or no medicine. But the Botanic System, being founded on those simple and immutable truths, which have existed from the foundation of the world, commends itself to every unprejudiced mind, at a glance, It invites investigation, and challenges its enemies to examine its principles, “ which are all laid open in the most intelligent and simple form, and may be comprehended by the most ordinary capacity.” And so successful has been the practitioners of the Botanic System, that they have come to the conclusion, that medicine timely and properly administered, is as certain to remove disease, as bread is to satisfy hunger, or water to quench thirst ; and with the utmost confidence, in cases of sickness,



take it themselves, and administer it to others. Thus the hope seems to revive, which has been cherished by many, that our benevolent Creator “has provided remedies to remove all diseases, if timely applied, so that there should be but one outlet to life—which would be old age.”

If these things are facts, it becomes every man who feels himself to be in a world of sickness and distress, to lay aside all popular prejudice, and candidly examine and receive the truth from whatever source it springs, and enjoy the blessings it will bring ; for truth is the same in its effects, whether it comes from the proud philosopher or the humble peasant.

The opposition which the Botanic practice has met with, and the libelous and slanderous epithets bestowed upon it, by designing men, from whom the world had reason to expect better things, should not deter us from examining its principles, or from receiving the benefits of its practice. The importance of the subject demands investigation. For without health, every one feels that he is no comfort to himself, and of but little use in society ; for it is said that “the soul in a diseased body is like a martyr in a dungeon ; it may retain its value, but has lost its usefulness.

It is important, therefore, that we for ourselves become intimately acquainted with the actual things of nature : the Botanic practice of Medicine is founded on simple truths, tested by experience ; and proves in its use, peculiarly adapted to the human constitution, and very efficacious in removing disease. Although it has met with the most violent opposition from a respectable class of our fellow citizens, whose interest it opposed, yet it has spread with wonderful rapidity through society, carrying conviction of its utility to the minds of those who have thoroughly tested its practice, or impartially examined its principles. Though it has met with the most unparalleled success and approbation among those who have proved its value, yet it being but lately known by mankind, much ignorance still re-



mains of the worth of this important discovery. Many have not had an opportunity of examining its principles, and many more by misrepresentation, have become prejudiced against it, so that thousands are now suffering by disease, from which they have no hope of recovery, who are deprived of the benefits of this practice, which most unquestionably, if properly administered, would speedily restore them to health. In order therefore, to give correct information, and to remove the prejudices which unhappily exist against this practice, we shall endeavor to give a concise statement of the principles on which this system is founded, that every one may have an opportunity to judge for himself, how far it claims his confidence, or is worthy of support ; for the time has come when every one should think and act for himself.

We believe the Botanic Practice is in accordance with the laws of life and motion. In order for us clearly to understand the laws of life and motion, says Professor Worthy, the radical principles of animalization is of infinite moment. Without some adequate views and conceptions of these, the nature of disease cannot be correctly understood, neither can we have sufficient knowledge to prescribe a rational, safe, sure, and certain remedy for the removal of disease when found in the human system. No species of matter, says the same writer, can assume a solid form, without having first been in a fluid state ; nor can any change take place in a solid, till it be first formed into, or suspended in a fluid. The living animal bodies are obedient to these general laws, for all solid and animal matter has first been fluids, and having passed into this solid form, becomes a recipient to other fluids, out of which the solids may themselves be renovated and increased.

The principles of life in human or other animal bodies, is the same ; all constitutions are alike, being formed from the same materials, all partaking of the four elements, earth, water, air, free caloric or heat.



The component parts of all animal bodies, says Dr. Thomson, are earth and water—these are the solids—air, caloric or heat are the others, which is the cause of life and motion. When the heat lightens the air in the lungs, the external air being heavier, presses out the light air ; and the lungs will continue to contract and expand as long as the caloric or heat continues, and when the heat goes out, the weight of air comes to a slack or balance internally and externally, and all motion ceases. That in all animal life, a certain proportion of heat is necessary for the full enjoyment of health ; and whatever tends to destroy a due proportion of heat, is the cause of disease ; and that which will restore the heat, overpower the cold, and remove obstructions, acts in accordance with the laws of life and motion. Heat in this case is not only an agent of life, but is life itself ; it will not act alone, but in accordance with the other elements, without which, there is no life either in animal or vegetable matter.

When we cast our eyes upon the vegetable kingdom, we behold the earth, as it were, teeming with animation, and the landscape covered with vegetation, both to delight the imagination and supply man and beast with food ; the rivers and the rills flowing smoothly and gently within their channels ; and the earth and water beginning to be alive with animated beings, and even the stubborn oak which disdained to bend before the northern blast, obeys the call of nature, and dresses itself in green, to be an ornament to the forest. But what has produced this wonderful work of nature ? The sun has poured forth from her meridian splendor, its rays of caloric or heat, on which the animal and vegetable life depends. And a new birth is given not only to vegetation, but to insects ; reptiles of the dust rise from a state of stillness or suspended animation, to a state of life and vigor.

Abstract the element of heat or caloric from all other elements, says Dr. Thomson, stillness and silence would be universal—the life of all that breathes and



moves would be swallowed up in stillness of eternal death. Earth and sea would be and remain a solid, unmoving, and immoveable mass ; the fluid air would be concentrated to the flinty hardness of the diamond on its native rock, and creation would be a blank. Therefore, we see that animal and vegetable life depends on a requisite proportion of the four elements ; so also is a suitable quantity of caloric or heat as necessary for the proper digestion of food, as it is for vegetables to enable the roots to suck their nourishment from the ground. The means provided to sustain vegetable life, would be unavailing without heat ; and so also would that provided to sustain animal life.

It may be said with truth, that the Supreme Being is the great first cause of all action in the animate and inanimate world, but still, he moves them both by means, and we know as little of the innate nature of many of the means, as of himself. Who can tell what fire is, only by its effects ? And who can tell what invisible beings are, except by their actions ? Our knowledge of the great cause of action in the natural and moral world, is by marking their effects. We see a multitude of actions and changes produced in the vegetable and animal kingdoms, and we behold great and mighty changes in the earth and skies, but the agent which produces all these, acts invisibly to us.

We believe that each organ of the system performs a certain function. It must, therefore, have the power to act, for without action there could be no performance. Hence there must be either a power invested in, or furnished to, the organs by which they are enabled to act. This we shall term the living power, vital power, or power of life. By these terms, therefore, it may be understood as referring to that principle of vital action which is necessary to be kept up, in order that life may be sustained. This power is obtained from food, drink, and air, being received into the stomach and lungs. It is evident therefore, that there is no power inherent in the organs, to produce or



keep up those actions upon which life depends. Hence it is evident that life is not a natural, but a forced state. Therefore we see that man is like a complicated machine, that must be kept in motion by a moving power, and by continual friction finally will become worn out.

But the manner which the powers that give impulse to the human machine, are applied to the organs, remains undefined. We believe however, that the vital power is drawn from the air, and from our aliment, including drinks, and is concentrated in all its force in the blood. The various organs of the system are so constituted as to be susceptible of impressions from this power, which appears to be applied to, or diffused through every part and portion of them by the agency of the blood. It is a matter of but little consequence in a medical point of view, what the nature of this power is, or the mode of its action ; as all must be sensible, that without its constant application, life must cease. We cannot be deprived of food and drinks but for a short time, and of air still shorter ; for those are the substances from which the power of life is drawn.

It is, we think, a very clear point, that material matter, in all the actions of which it can be the subject, is passive. By material matter, we mean earth, water, and all those substances necessary to the support of animal and vegetable life. But those materials, without that spirit of animation which caloric diffuses through nature, would remain forever inactive, inasmuch as the body without the spirit, is dead ; so would the earth be, without heat. And it is a question yet unsettled, whether caloric be a distinct substance of itself, or whether it be only an attribute of matter, brought forth by friction. The great point with us, is to know what principles are active and what passive in animal motion ; the nature of active power, and the nature of that on which it is exerted. For there must be such an agent as active power, and this active power acts on material substances. It is necessary for us to have correct views of the active power ; for in all diseases the active



power is weakened and diminished by inanimate matter, and it must be assisted to put matter in proper motion. The active power, we shall call free caloric, and the substances on which it acts, animal bodies, or the human system. Animal life, and all other organized living bodies, require a certain quantity of caloric or heat, to promote their growth and sustain life.

We will for a moment take a cursory survey of the human system. It is composed of bones to sustain the weight of the body, and to defend the vital organs of life, and to give shape and strength to the whole system. The bones are tied together by muscles and ligaments, and clothed with flesh. Internally, there is the stomach to receive our food, and liver to secrete bile for its proper digestion, and the alimentary duct, with its numerous vessels to suck up the nutriment contained in our food, and to impart life and vigor to the whole system. And there are the two glands that separate the urine from the blood, and the urinary bladder in which it is deposited for emission. The lungs are two viscera situated in the chest, by means of which we breathe, and it is supposed the blood receives oxygen from the air, while passing through these organs.

The heart is a hollow, muscular viscus, situated between the right and left lobes of the lungs, and is the great centre of the circulatory system. Through the medium of arteries and corresponding veins the blood is conveyed to every part of the body. The nerves have their origin in the brain, and in the spinal marrow. All the parts of the human body are composed of a porous substance, through which a fluid or animal juice, is constantly flowing. But all these organs may be properly arranged in an animal without life. If we examine the bones, we can discover nothing in them but inanimate substance. They appear to be totally destitute of any active power inherent in themselves. And what has been said of the bones, may with equal truth be said of the muscles, ligaments and glands. All these seem in themselves to be deprived of that



*vis insita* necessary to muscular motion in man. They have no motion only as they are acted upon ; all the action of which they are the subject, is caused by some other agent. If we investigate the alimentary canal, we can discover nothing in the absorbent vessels why they should be active, when they absorb the nutriment from what we receive into the stomach.

It is very evident that something must put these in action, independent of themselves. Nor can we be persuaded to believe that the substances of the lungs contain any active power which enables us to breathe ; for when the animal is dead, although the lungs should be sound, there is surely no respiration. When the spirit of animation has fled, all the vital actions at once cease. Why, it may be asked, does the blood circulate ? In its motion does it obey the laws of gravitation ? Surely not ; neither is it excited to action by any chemical power ; and still the blood flows through the arteries and veins of the system, with regularity and speed.

What in animal bodies is the cause of motion ? On examining them we find they are composed of various mineral substances, gases and water. But those substances have no life in themselves. The mineral and vegetable substances may, and unquestionably do exist in animal bodies without life. It cannot be true that matter possesses the power of action within itself ; or, in other words, matter is not self-excited to action. But in living animal bodies, there is action in material substances. What, it may be asked, produces this action ? Does the water in the system produce it ? Water to be sure produces action by its action ; but no one will pretend that the animal functions are maintained by the gravitation of water ; for water is as dependent on some agent or cause for its action, as any other substance. It may be imagined, however, that although earth and water should be found to possess no self-moving power, that animal gas does. But this gas



or air, is found in the dead as well as in the living body. It cannot, therefore, be the first cause of vital action in man.

If matter contains no self-determining power, and if the animal functions are not maintained by the gravity of water, nor the active tendency of gas, where shall we look next for the cause of action in organic life? Add free caloric to the system, and all will be well; add caloric or vital heat to the animal economy, and all its functions will be regularly discharged. Then the expanding lungs will immediately inhale the vital air, and the heart begin to beat. Then the crimson liquid will begin to flow through the arteries and veins of the system, and the water and gas be excited to action, and begin to pass off by insensible perspiration. Now the nervous system is aroused into action, and the sensorial fluid equally distributed, to impart feelings to every part of the body.

Let free caloric have an equal residence in every part of the human body, and the digestion will be good; then the absorbent system will be excited to a healthful action, and the vital fluid emitted from the body, and solids purified and rendered healthful. Then the pale emaciated appearance of decline, will be changed to beauty and youth; then an irritable and petulant disposition will be guarded and supported by a well braced nervous system; then a weak and irresolute determination will be rendered irrevocable by a vigorous and elastic muscular action.

Add caloric or heat to the system, and this most wonderful and curious of all machines, (the human body) will be in complete operation. Let there be an equal distribution of free caloric in all its parts, and this harp of ten thousand strings, will be in complete tune; but if you diminish the heat in any degree, there will immediately be harsh discordant notes. Diminish it to a certain degree, and the harp is mute. Then the dilating lungs and the beating heart ceases to act, and the crimson flood ceases to flow.



It appears quite evident, that were we to search the whole animal and vegetable economy, and with the most accurate discrimination, in quest of the first cause of action, if heat be absent, we should search in vain. Why heat is active, we do not pretend to say. It is sufficient for us to know that it is so. No one will, we presume, deny this. What caloric or heat is, separate from its effects, we do not pretend to explain; but such appears to be the present organization of things, that where earth, water and atmospheric air, accompanied with a due proportion of heat, are found, vegetables will grow—and where these grow, are found animals and men.

It will be perceived, that it is our belief that heat is the cause of life and motion in the human system. To prove this, it seems only necessary to remark, that the dead body has every thing that the living one has, except free caloric. In the dead body there is the animal and the vegetable substances, and there is the water and the air, but no active heat to be discovered. Hence we conclude, that the substantial difference between a live animal and a dead one, is, that the dead one has lost that temperature of heat necessary to keep up the vital functions of the animal economy, which the living one possesses.

Lest any one should say that we simplify in too great a degree, animal life, and the theory of disease, we remark that the heat in the system is supplied through the medium of the lungs, and by various and numerous actions of the animal system; and those actions by which heat is maintained in the system, are performed by the influence of free caloric on the solids and fluids of the body.

Now when the solids or vessels and organs of the system become so far destroyed, as to be unable to retain the heat, no medicine on earth can save the life of the patient. Such is the case in pulmonary consumption, when one lobe of the lungs is gone, and in almost all cases of gangrene. Sometimes the whole system



is so debilitated and apparently destroyed, as to render it extremely difficult to raise or continue that heat in the system, on which health is depending.

A continuation of free caloric in the system depends in a great measure, on the state of the solids. The solids may be so injured as to cause the heat to go out or escape, by numerous avenues ; but they cannot be rendered healthy, except with such means as are directly designed to produce action on them. There are no means hitherto discovered, that appear to have this tendency, except those which tend to increase the heat in the system ; for heat is in an astonishing degree, penetrating, and is as active and purifying, as it is penetrating and powerful. Raise the heat in the system to a suitable temperature, and the solids will immediately be put in motion, and the water which was before extinguishing the vital spark, is thrown off by perspiration. The viscid water, then, which had collected on the stomach and intestines, and contaminated the blood, and indeed all the fluids of the body, is compelled to pass off by some of the natural evacuations of the animal economy. Then that acrimonious acid which accumulates in the system by want of action, caused by a want of heat sufficient to remove the obstructions, will either be neutralized or emitted from the system, and so be prevented from producing canker, indigestion, and the whole train of nervous affections, connected with dyspepsia.\*

Having shown that life depends on free caloric or vital heat, we will now proceed to show how disease is produced by a diminishing of vital heat in the system. It will readily be perceived, that we do not believe that fever is a disease, but that it is a disturbed state of heat, occasioned by disease. To illustrate this point, we give the following remarks from Dr. Thomson. According to the writings of learned physicians, says he, there is a great variety of fevers, some more and some less dangerous. But to begin with the definition of the name. What is fever ? Heat, undoubtedly, al-

\*Dr. Tower's Lectures.



though a disturbed state of it. Is there more than one fever? The physicians tell us, there is the pleuretic fever, slow or nervous fever, putrid fever, hectic fever, yellow fever, spotted fever, and typhus fever. But all of these different appearances we believe to be a disturbed state of heat, caused by cold or obstructions, and an effort of nature to throw it off.

Is fever or heat a disease? Hippocrates, the acknowledged father of physicians, maintained that nature is heat; and we think he was correct. Is nature a disease? Surely it is not. What is commonly called fever, is the effect, and not the cause of disease. It is the struggle of nature to throw off disease. Cold causes an obstruction and fever arises, in consequence of an effort to throw it off. This is universally the case. Remove the cause, the effects will cease. No person ever yet died of a fever; for as death approaches, the patient grows cold, until in death, the last spark of heat is extinguished. This the learned doctors cannot deny; and as this is true, they ought in justice to acknowledge that their whole train of depletive remedies, such as blistering, bleeding, physicking, starving, with all their refrigeratives, nitre, &c. are so many deadly engines, combined with the disease, against the constitution and life of the patient. If it is a fact that fever takes its rise from one general cause, it follows of course, that one method of removing that cause, will answer in all cases; and our greatest object should be to assist nature, which is heat. If a direct and proper application of suitable medicines be timely applied, in cases of fevers, the cause may be broken up, and the patient, as a general thing, need not be confined longer than twenty-four or forty-eight hours. But if the patient is left to struggle with disease, unassisted, until his strength is exhausted, especially if poisonous and injurious administrations are made, if it is possible for the patient to recover, it must necessarily take a longer time. These are every day occurrences, and may be



proved to the satisfaction of every individual by observing the different treatments of disease.

Suppose that a regular physician has a violent case of fever. After examining the patient, he finds that it proceeds from a cold, and he must be bled to reduce the inflammation ; a blister must be applied to the side to guard against pleurisy, and then give a few mild sudorifics, such as nitre, &c. ; on the second examination he finds him bilious, and must have fifteen or twenty grains of calomel—repeated if necessary ; this is supposed to answer the desired end. Then a few portions of oil or salts is given, to work off the poisonous drugs from the system. If the patient should survive such treatment, he would be a long time in regaining his health, if ever.

Suppose a Botanic Physician has a similar case. On examination he finds the symptoms indicate a fever ; the patient has caught a severe cold, which has produced obstructions, and driven the internal heat to the surface ; he administers diaphoretics to restore the internal heat, applies the vapor bath to open the pores and relax the system, and administers an emetic to remove the obstructions ; when this accomplished, the cold is driven to the surface, large quantities of morbid matter is thrown from the stomach, and a warm perspiration succeeds. He has only to tone him up, and the man is well. It will be perceived that both cases proceeded from a cold ; one labors to destroy the heat, which is the effect ; the other to remove the cause, and the effect will cease.

It may be asked, should not the patient be treated according to the symptoms of his case ? Most certainly he should. And this is what we should always endeavor to do ; if we find the patient cold, we should raise the heat ; if dry and feverish, sweat him ; if vomiting, cleanse the stomach of the offensive matter ; if weak, we strengthen him ; if cramped, relax the muscles ; if obstructed, remove the obstacle ; if hungry,



feed him ; if thirsty, give him drink, &c. We think this perfectly philosophical.

When we assert that all diseases are one, we do not mean to be understood that the effects are one, for these are various, but that they all proceed from one cause. For example ; suppose six men are all equally exposed, and had taken severe colds, is the effects the same ? It seldom is ; one may have the consumption, another typhus fever, another ague and fever, another dysentery, another rheumatism, and the other dropsy. All these different effects are produced from the same cause, visible cold, which caused obstruction, and should be treated on the same principle, to expel the cold and remove the obstruction, then all these different effects will of course cease.

Dr. Thomson remarks, that cold, or lessening the power of heat, is the cause of all disease ; to restore heat to its natural state, is the only way by which health can be produced ; that after restoring the natural heat, by clearing the system of all obstructions, and causing a natural perspiration, the stomach would digest the food taken into it, by which means the whole body is nourished and invigorated, and heat or nature is enabled to hold its supremacy. That the constitution of all mankind being essentially the same, differing only in the different temperament of the same materials of which they are composed, it appears clearly that all diseases proceed from one general cause, and may be removed by one general remedy ; that a state of perfect health arises from a due balance or temperature of the four elements, but if it is by any means destroyed, the body is more or less disordered ; and when this is the case, there is always actually a diminution, or absence of free caloric or vital heat, and in proportion to its diminution or absence, the body is affected by its opposite, which is cold ; and the greater portion of disorders with which the human family are afflicted, however various the symptoms, and different the names by which they are called, arise directly or indirectly from obstructed per-



spiration, which is always caused by cold, or want of heat ; for if there is a natural heat, it is impossible but there must be a natural perspiration.

When perspiration is checked, the gastric juice of the stomach being destroyed, the digestion is suspended. In short, this great loss of heat in the system, produces a torpor in the stomach, bowels and liver, and in all the pores of the body. Then that fluid which is secreted from the blood, and thrown off by insensible perspiration, is retained in the system. The pores being closed, and water retained, and the stomach and bowels being torpid, of course all action is thrown upon the arterial system. Hence the large vessels appear crowded and distended with blood, the arterial action greatly increased, and the pulse is hard and frequent.

We have remarked that cold had produced inaction, or contracted the whole absorbent system. We all very well know that cold has this tendency on material substances. When iron is red hot, if it should be cooled suddenly it produces a sensible contraction. It is so with other substances. It is cold, and not the heat of fever, which produces the contraction in the absorbents, and so prevents perspiration ; for it is the very nature of heat to make water volatile, and when the water and cold prevail within, the heat will be driven to the surface. But when the heat is predominant, the water will flow from the system by perspiration. It is evident, however, when the action is thus thrown upon the arterial system, there is an increased heat created by an increased arterial action, and by frequent oxidations of the blood in the lungs. But this heat is an effort of nature to overcome the cold, rather than a disease ; for if there was no disposition in the animal economy to resist the effects of disease, in vain should we ever attempt the healing art.

But we do not despair on this ground, for nature has provided many outlets to disease, and uniformly makes efforts to free the system of it, and will always consent



to be assisted in all cases. Now, when the excitement is thus produced in the arterial system, there immediately commences a conflict between nature and disease. Free caloric is created in the arterial system by action, canker and death in the stomach and bowels by the cold; and we promote life or death in proportion as we assist one or the other. For if we should assist the cold, or in other words, if the medicine should have a tendency to lower the temperature of heat, then the torpor will be increased, and the obstructions rendered more difficult to remove; bearing in mind this great and important truth, that free caloric is the cause of action; for when it is diminished, we shall see inaction as the consequence. When the arterial action is greatly increased, we are not to imagine that all the functions are excited also. This evidently is not the case, for whenever there is an increased action in one part of the system, we may be assured that there is a diminished action in another. It were absurd to believe that the whole system is excited equally, and equally, in too great a degree. But the whole system may be, and frequently is, diseased; but not by too much equal action, nor too much free caloric, equally distributed through the system, but by its diminution, a part being destitute, and a part having too much.

When animal and vegetable substances are not in action, they begin to decay. In all diseases there is a want of action, or there are obstructions in some part of the system. The want of this action in the greater number of diseases, is in the stomach and bowels. Now, as soon as the heat escapes, and leaves the viscera to inactivity, a decay or canker immediately commences in those parts. And here we may see how directly a diminution of heat leads to death. Remove the free caloric, and the canker or decay will prevail; and as the heat continues to die away gradually, torpor will keep pace with it, and as these continue to gain ground, the canker thrusts its deadly talons deeper and deeper into the system, until gangrene steps in and ends



the scene. Whereas if we increase the heat, we shall increase the action, and if we increase the action, we stay the progress of the canker, and prevent mortification.

But it is evident in this case, that the people are deceived by outward appearances. They see the surface is hot, and think, therefore, an accumulation of heat is the disease. And still it seems not a little surprising that they should think so. They know the cause has been a violent cold, and the patient, he knew too, had been seized with ague fits. How then can they believe that the patient has too much heat? Because the skin is hot, and the pulse is hard and quick; surely, they are led into error by outward appearances. When the patient had cold chills, all are ready to acknowledge that cold was the difficulty, and stimulating means would be proper; but within one or two hours after, when the disease has taken possession of the seat of life, and driven the free caloric to the surface, then refrigerants must be given to destroy the heat. When nature needs little assistance, it will do to assist it; but when it needs it more, it must be destroyed. But how is it that the disease is so changed in so short a time? Now, the difficulty is cold, and something hot must be administered; one hour hence, the disease is heat, and something cooling must be administered. How, we would ask, is the cold, or the effects produced by the cold, in so short a time wholly eradicated from the system, without perspiration or any other natural evacuation, and the system so highly surcharged with free caloric, if so be, it is general? If it should be said it is created by friction, and by frequent oxidations of the blood, then we reply, if the increased arterial action, and the little more frequent oxidations of the blood, in so short a time augment the free caloric to such an enormous degree, the natural action of the system, and the common oxidations of the blood, when a man is in good health, would increase it in a few days so as to consume the muscular flesh upon the bones. This we think, will



appear to all to be conclusive proof that the apparent increase of heat is not produced in this way. We cannot perceive for ourselves, how the diminution of heat in the system, has any tendency to increase it.

Having fixed upon these general principles, as the only solid foundation upon which a correct and true understanding of the subject can be founded, it is necessary to ascertain what kinds of medicine and treatment would best answer the purpose, in conformity to this universal plan of curing disease; for it must be certain and self-evident to every one, that whatever will increase the internal heat of the system, which is diminished, restore the digestive powers of the stomach, and produce a natural perspiration, is universally applicable in all cases of disease, and therefore may be considered a general remedy.

Having given a concise view of the principles on which this system is founded, let us now examine some of the prominent objections brought against it.

It is thought impossible for those people whose education has not enabled them to profit by the experience of others, who have lived before them, to discover natural laws, and to understand the science of medicine, or to apply those simple remedies that will remove disease. "But is it more unreasonable than that Robert Fulton should tell all the mechanics of the world, how to traverse the ocean by the power of steam? That Whitney should discover to the planter a simple means of clearing the seed out of his cotton, and to multiply the value of his products? Are not the store houses of nature equally open to all? Cannot one man observe a plain matter of fact nearly as well as another? And is it reasonable to say that any thing is perfect, and susceptible of no farther improvement, so long as it does not answer the end for which it was designed? That the science of medicine is not perfect, is evident from the fact that thousands are suffering by disease for which no remedy is known by the M. D's.



It is thought, also, that people are too ignorant to attempt to apply remedies in their own cases of disease. Of what are they ignorant? Of Greek and Latin, and technical names applied to disease? Admitting that they are; of what use are Greek and Latin in helping a man to discover the effects of an external agent of the body? Cannot a person witness the operation of lobelia, without knowing that the doctors call this peculiar effect on the system, emesis? Is it not as easy to discover the effect of that which relieved a man of disease, as that which removed his hunger and thirst? And does it require a vast amount of Greek and Latin, to describe in English these operations and their causes? Can that person be called ignorant of what will relieve hunger, who has used bread and meat for this purpose for twenty years, and never known them to fail? As well may it be said of those who have for years used the Thomsonian medicines, to be ignorant of what will cleanse the phlegm and canker from the stomach, overpower the cold, and remove obstructions, and reinstate the system. Can we not tell to plain men, in a plain manner why we do this, without an acquaintance with Greek and Latin, or even with the endless and fruitless speculations of the learned on the same subject, who, with all their knowledge of each others errors in theory, and mischiefs in practice, have never discovered how to accomplish this desirable object?

It is said "that the vast variety of disease to which the human frame is subject, cannot be traced to the same cause. It is therefore wrong in saying that all diseases are one."

We answer, that if in this assertion we err, we are in company with not a few of the greatest men that ever devoted their attention to the science of medicine. But how is the error proved? The Thomsonians believe in the unity of disease: others believe in a great diversity of disease; each acts according to his faith, we with universal remedies, and they with an endless.



variety of local. What is the result? We cure all that are not constitutionally dead; they lose often the most robust and promising youth.

Again, it is said that we use only one remedy in all cases, and it is unreasonable to suppose that one kind of medicine will cure all kinds of disease; we do not pretend to use a single article only, but sundry different articles, which if used in due season, will do more towards the removal of all diseases, than all the remedies that were discovered before; and they may be so compounded by art, as to be given at the same time with almost equal success. The Great Creator, therefore, who has put the several remedial qualities into a few different vegetable forms, can and may have made one plant contain them all. No one dare say that he has not; and some obscure plough-boy is as likely to discover that plant, as the greatest scientific scholar that our colleges ever produced. Of one thing we are certain; the Botanic Medicines are not only the most valuable remedies that have ever yet been discovered, but they may be successfully administered by the hand of every man or woman who is worthy to be counted the head of a family. Though we have no objection to the discovery of the one remedy to which we have alluded, yet we do feel it to be one of the most important duties to our suffering fellow beings, to use all our influence, that the knowledge of the virtues and uses of those already discovered, should be universally diffused.

We design to lay the theory and practice of medicine before the public without a shadow of concealment. Those remedies which we shall give, have been tested by forty or fifty years experience, with invariable and indisputable success; a success which those people who have not seen, supposed to be impossible; but some of the most learned of the faculty, who have observed the effects of the Botanic Practice, have given their decided testimony of its power and efficiency.

Much prejudice yet remains, which prevents a general use of this safe and simple mode of curing disease,



which bids fair, were it universally adopted, to banish disease and untimely death from the nations of the world ; to introduce the dawn of that redeeming day, when sickness shall not be seated in a constitution, to emaciate the body and prostrate the mind, but shall be met and expelled at its entrance, by those remedies that neither entails debility nor chronic disease on the patient. It far surpasses all other modes of practice which has been hitherto discovered or brought into operation, and reduces the mystery of the healing art, to a very simple process, which may be conducted, prepared and administered, in every family, by the same hands which prepares and administers our food ; and if as thoroughly understood, it might be administered with nearly as good success. They grow in the same field, and may be gathered by the same hand, as they gather other necessary articles of life.

We shall endeavor to avoid every thing that looks like mystery, or imposition, and clothe medical knowledge in a dress so simple and intelligible, that we think it will be an interesting study to every individual. Truth is simple on all subjects ; and upon those that are essential to the general happiness of mankind, it is obvious to the smallest capacity. There is but few men so simple, but what may be taught to cultivate grain ; and there are but few women who cannot be taught to make it into bread. And shall the means of preserving our healths by the culture and preparation of food be so intelligible, and yet the means of restoring it when lost, so obscure, that we must study years in order to discover and apply them ? To suppose this is to call in question the goodness of Deity, or believing that he acts without system or unity in his works.



## PART II.



### NATURAL LAWS.

Having shown that man is an organized being, governed by certain laws, we shall proceed to show the laws by which they are governed, usually termed natural laws.

By nature, we mean the workmanship of our Creator, as it is revealed to our minds by our senses and faculties ; to inquire into the use or purpose of any object that exists, is merely to examine its relation to other objects and beings, and of the mode in which it affects them. 'This is quite a legitimate exercise of the human intellect ; we may ask why are the physical elements of nature created such as they are ? Why were summer, autumn, winter and spring introduced ? Why were animals framed of organized matter ? These are enquiries, why, what exist, was made such as it is, or into the will of Deity in creating. No man's perceptive faculties are adequate to the first inquiry, or his reflective faculties to the second, and it may well be doubted whether he has powers suited to the third. Yet man has perceptive faculties and ought to study into and be conversant with what exists, and why it does exist, or for what purpose. Thus far man can, and ought to enter into the economy of nature or the works of God, that we may in some little degree at least, understand the design of God in creating all things on natural relationship, one to the other, or according to natural laws.

A law, in the common acceptation, denotes a rule of action ; its existence indicates an established and constant mode, or process, according to which phenomena takes place ; and this is the sense in which we shall use it when treating of physical substances and beings ;



for example, water and air are substances ; and water presents different appearances, and manifests certain qualities, according to the altitude of its situation, and the degree of heat with which it is combined. When at the level of the sea, and combined with that portion of heat indicated by  $32^{\circ}$  Fahrenheit's thermometer, it freezes or becomes solid ; when combined with the portion denoted by  $212^{\circ}$  of that instrument, it rises into vapor or steam. Here water and heat are the substances—the freezing, and rising into vapor, are the appearances, or phenomena presented by them ; and when we say that these take place according to a law of nature, we mean only that these modes of action appear, to our intellects, to be established in the very constitution of the water and heat, and in their natural relationship to each other ; and that the process of freezing, and rising in vapor, are their constant appearances, when combined in these proportions, other conditions being the same.

The ideas chiefly to be kept in view, are, first, that all substances and beings have received a definite natural constitution. Secondly, that every mode of action which is said to take place according to a natural law, is inherent in the constitution of the substances, or beings that act. Third, that the mode of action described, is universal and invariable, wherever and whenever the substances or beings are found in the same condition. For example, water at the level of the sea, freezes and boils at the same temperature, in China and in France, in Peru and in England, and there is no exception to the regularity with which it exhibits those appearances, when all its conditions are the same.

If water be carried to the top of a mountain 20,000 feet high, it boils at a lower temperature than  $212^{\circ}$  ; but this again depends on its relationship to the air ; it boils at a lower temperature the higher it is carried, because there the pressure of the atmosphere is diminished.

Intelligent beings exist, and are capable of modifying their actions. By means of their faculties, the



laws impressed by the Creator on physical substances, become known to them, and when perceived, constitute laws to them by which to regulate their conduct. For example, it is a physical law that boiling water destroys the muscular and nervous system of man. This is the result purely of the constitution of the body, and the relation between it and heat ; and man cannot alter or suspend that law. But whenever the human intellect perceives the relation and the consequence of violating it, the mind is prompted to avoid infringement, in order to shun the torture attached by the Creator to the decomposition of the human body by heat. Whether the pleasure or pain which thus follows upon our behaviour, be owing to the Author of nature acting upon us every moment which we feel it, or to his having at once contrived and executed his own part in the plan of the world, makes no alteration as to the matter before us.

Vain is the ridicule with which we see some persons diverting themselves, upon considering pain as an instance of divine punishment. There is no possibility of answering or evading the general thing here intended, without denying all final causes. For final causes being admitted, the pleasures and pains now mentioned, must be admitted too, as instances of them. And if they are so, if God annexes delight to some actions, with an apparent design to induce us to act so and so, then he not only dispenses happiness and misery, but also rewards and punishes actions. If for example, the pain which we feel upon doing what tends to the destruction of our bodies, suppose upon too near approaches to fire, or upon wounding ourselves, be appointed by the author of nature to prevent our doing what tends to our destruction ; this is altogether as much an instance of his punishing our actions, and consequently of our being under his government, as declaring by a voice from Heaven, that if we acted so, he would inflict such pain upon us, and inflict it whether it be greater or less,



If then, the reader keeps in view that God is the Creator, that Nature, in the general sense, means the world which he has made, and in a more limited sense, the particular constitution which he has bestowed on any special object, of which we may be treating, and that a law of nature, means the established mode in which that constitution acts, and the obligation thereby imposed on intelligent beings to attend to it, he will be in no danger of misunderstanding our meaning.

Every natural object has received a definite constitution, in virtue of which it acts in a particular way. There must, therefore, be as many natural laws, as there are distinct modes of action of substances and beings, viewed by themselves. But substances and beings stand in certain relations to each other's actions, in an established and definite manner, according to that relationship ; altitude, for instance, modifies the effect of heat upon water. There must, therefore, be also as many laws of nature, as there are relations between different substances and beings.

It is impossible in the present state of knowledge, to elucidate all these laws ; countless years may elapse before they shall be discovered ; but we may investigate some of the most familiar and striking of them. Those that most readily present themselves, bear reference to the great classes into which the objects around us may be divided, namely : Physical, Organic, and Intelligent. We shall therefore confine ourselves to the Physical laws, the Organic laws, and the laws which characterize intelligent beings.

1st. The Physical laws embrace all the phenomena of mere matter ; a heavy body, for instance, when unsupported, falls to the ground with a certain accelerating force, in proportion to the distance which it falls, and its own density ; and this motion is said to take place according to the law of gravitation. An acid applied to a vegetable blue color, converts it into a red, and this is said to take place according to a chemical law.



2d. Organized substances and beings stand higher in the scale of creation, and have properties peculiar to themselves. They act, and are acted upon, in conformity with their constitution, and are said to be subject to a peculiar set of laws, termed the Organic. The distinguishing characteristic of this class of objects, is, that the individuals of them derive their existence from other organized beings, are nourished by food, and go through a regular process of growth and decay. Vegetables and animals are the two great subdivisions of it. The organic laws are different from the mere physical. A stone, for example, does not spring from a parent stone ; it does not take food from its parent, the earth or air ; it does not increase in vigor for a time and then decay and suffer dissolution, all which processes characterizes vegetables and animals. The organic laws are superior to the physical. For example, a living man, or animal may be placed in an oven, along with the carcass of a dead animal, and remain exposed to a heat which will completely bake the dead flesh, and yet come out alive and not seriously injured. The dead flesh is mere physical matter, and its decomposition by the heat instantly commences ; but the living animal is able, by its organic qualities, to counteract and resist to a certain extent, that influence. The expression, organic laws, therefore, indicates that every phenomenon connected with the production, health, growth, decay and death of vegetables and animals, takes place with undeviating regularity, whenever circumstances are the same. Animals are the chief objects of our observation.

3d. Intelligent beings stand still higher in the scale than merely organized matter, and embrace all animals that have distinct consciousness, from the lowest of the inferior creatures up to man. The great divisions of this class are into Intelligent and Animal—and into Intelligent and Moral creatures. The dog, horse and elephant, for instance, belong to the first class, because they possess some degree of intelligence, and certain



animal propensities, but no moral feelings. Man belongs to the second, because he possesses all the three. These various faculties have received a definite constitution from the Creator, and stand in determinate relationship to external objects : for example, a healthy palate cannot feel wormwood sweet, nor sugar bitter ; a healthy eye cannot see a rod partly plunged in water, straight, because the water so modifies the rays of light, as to give the stick the appearance of being crooked ; a healthy benevolence cannot feel gratified with murder, nor a healthy conscientiousness with fraud. As therefore the mental faculties have received a precise constitution, and have been placed in fixed and definite relations to external objects, and act regularly ; we speak of their acting according to rules or laws, and call these Moral and Intellectual laws.

Several important principles are to be noticed in attending to the natural laws, viz. : 1st, Their independence of each other. 2d, Obedience to each of them is attended with its own reward, and disobedience with its own punishment. 3d, They are universal, unbending, and invariable in their operation. 4th, They are in harmony with the constitution of man.

1st. The independence of the natural laws may be illustrated thus ; a man who swallows poison, which destroys the stomach or intestines, will die, because an organic law has been infringed, and because it is independent of others, although the man should have taken the drug by mistake, or been the most pious and charitable individual on earth. Or a man may cheat, lie, steal, tyrannize, and in short break a great variety of the moral laws, and nevertheless be fat and robust, if he sedulously observes the organic laws of temperance and exercise, which determine the condition of the body ; while on the other hand, an individual who neglects these, may pine in disease, and be racked with torturing pains, although at the very moment, he may be devoting his mind to the highest duties of humanity.



2d. Obedience to each law is attended with its own reward, and disobedience with its own punishment. Those who obey the moral law, enjoy the intense internal delights that spring from active moral faculties ; they render themselves, moreover, objects of affection and esteem to moral and intelligent beings, who in consequence, confer on them various other gratifications. Those who disobey that law, are tormented with insatiable desires, which from the nature of things, cannot be gratified ; they are punished by the perpetual craving of whatever portion of moral sentiments they possess, for higher enjoyments, which are never attained, and they are objects of dislike and malevolence to other beings in the same condition as themselves, who inflict on them the evils dictated by their own provoked propensities. Those who obey the organic laws, reap the reward of health and vigor of body, and buoyancy of mind ; those who break them, are punished by sickness, feebleness and languor.

3. The natural laws are universal, invariable, and unbending. There is no example, in any latitude or longitude, or in any age, of men who entered life with a constitution in perfect harmony with the organic laws, and who continued to obey these laws throughout, being, in consequence of this obedience, visited with pain and disease ; and there are no instances of men who were born with constitutions at variance with the organic laws, and who lived in habitual disobedience to them, enjoying that sound health and vigor of body, that are the rewards of obedience.

4th. The natural laws are in harmony with the whole constitution of man, the moral and intellectual powers being supreme. If men who rioted in drunkenness and debauchery, had thereby established health and increased their happiness, it would have been in discord with our intellectual and moral perceptions ; but the opposite result is in harmony with them. It will be subsequently shown that our moral sentiments desire universal happiness. If the physical and organic laws



are constituted in harmony with them, it ought to follow that the natural laws, when obeyed, conduce to the happiness of moral and intelligent beings who are called on to observe them, and that the evil consequences or punishments resulting from disobedience, are calculated to enforce stricter attention and obedience to the laws, that human beings may escape from the miseries of infringement, and return to the advantages of observance. When sickness and pain follow a debauch, they serve to urge a more scrupulous obedience to the organic laws, that the individual may escape death, which is an inevitable consequence of too great and continued disobedience to these laws, and enjoy health, which is the reward of opposite conduct. When discontent, irritation, hatred, and other mental annoyances, arise out of infringements of the moral law, this punishment is calculated to induce the offender to return to obedience, that he may enjoy the rewards attached to it.

When the transgression of any natural law is excessive, and so great that to return to obedience is impossible, one purpose of death, which then ensues, may be to deliver the individual from a continuation of the punishment which could then do him no good. If a man in the vigor of life so far infringe any organic law as to destroy the functions of a vital organ, the heart, for instance, or the lungs, or the brain, it is better for him to have his life cut short, and his pain put an end to, than to have it protracted under all the tortures of an organic existence without lungs, without a heart, or without a brain, if such a state were possible, but which for this wise reason it is not.

We do not intend to predicate any thing concerning the perfectibility of man by obedience to the laws of nature. The system of sublunary creation, so far as we perceive, does not appear to be one of optimism; yet benevolent design in its constitution is undeniable. The first supposition is, that God when he created the



human species, wished them happiness, and made for them the provisions which he has made, with that view and for that purpose.

We do not intend to teach that the natural laws, discernible by unassisted reason, are sufficient for the salvation of man without revelation. Human interests regard this world and the next. To enjoy this world, we humbly maintain, that man must discover and obey the natural laws ; for example, to insure health to offspring, the parents must be healthy, and the children after birth must be treated in conformity to the organic laws ; to fit them for usefulness in society, they must be instructed in their own constitution—in that of external objects and beings, and taught to act rationally in reference to these.

Man's spiritual interests belong to the sphere of revelation ; and we distinctly declare, that we do not teach that obedience to the natural laws is sufficient for salvation in a future state. Revelation prescribes certain requisites for salvation, which may be divided into two classes ; first, faith or belief, and secondly, the performance of certain practical duties, not as meritorious of salvation, but as the native results of that faith, and the necessary evidence of its sincerity. The natural laws form no guide as to faith ; but so far as we can perceive, their dictates and those of revelation coincide in all matters relating to practical duties in temporal affairs.

It may be asked whether mere knowledge of the natural laws is sufficient to insure obedience to them ? Certainly not. Mere knowledge of music does not enable one to play on an instrument, nor of anatomy to perform skilfully a surgical operation. Practical training, and the aid of every motive that can interest the feelings, are necessary to lead the individual to obey the natural laws. Religion in particular, may furnish motives highly conducive to this obedience. But it must never be forgotten, that although mere knowledge is not all-sufficient, it is a primary and indispensable



requisite to regular observance ; and that it is as impossible, effectually and systematically to obey the natural laws without knowing them, as it is to infringe them with impunity, although from ignorance of their existence. Some persons are of opinion that Christianity alone suffices, not only for man's salvation, which we do not dispute, but for his guidance in all practical virtues, without knowledge of, or obedience to, the laws of nature ; but from this notion we respectfully dissent. It appears to us, that one reason why vice and misery in this world, do not diminish in proportion to preaching, is, because the natural laws are too much overlooked, and very rarely considered as having any relation to practical conduct. Connected with this subject, it is proper to state, that we do not maintain that the world is arranged on the principle of benevolence exclusively ; our idea is, that it is constituted in harmony with the whole faculties of man, the moral sentiments and intellect holding the supremacy.

Let us then consider the constitution of man, and the natural laws to which he is subjected, and endeavor to discover how far the external world is arranged with wisdom and benevolence, in considering the relations which the several appetites and passions in the inward frame have to each other, and above all, the supremacy of reflection or conscience, that we get the idea of the system or constitution of human nature. And from the idea itself, it will as fully appear that this our nature or constitution, is adapted to virtue, as from the idea of a watch, it appears that its nature, constitution or system is adapted to measure time.

The human body consists of bones, muscles, nerves, blood vessels, besides organs of nutrition, of respiration, and thought. These parts are all composed of physical elements, and to a certain extent, are subjected to the physical laws of creation. By the laws of gravitation, the body falls to the ground when unsupported, and is liable to be injured, like any frangible sub-



stance ; by a chemical law, excessive cold freezes, and excessive heat dissipates, its fluids ; and life in either case is extinguished.

By the law of gravitation, heavy bodies always tend towards the centre of the earth. Some of the advantages of this law, are, that objects remain at rest when properly supported, so that men know where to find them when they are wanted for use. To place a man in harmony with this law, the Creator has bestowed on him bones, muscles and nerves, constructed on the most perfect principles of mechanical science, which enable him to preserve his equilibrium, and to adapt his movements to its influence ; also intellectual faculties calculated to perceive the existence of the law, its modes of operation, the relation between it and himself, the beneficial consequences of observing this relation, and the painful results of infringing it.

Man is an organized being and subject to the organic laws. An organized being is one which derives its existence from a previously existing organized being, which subsists on food, and grows, attains maturity, decays and dies. The first law, then, that must be obeyed, to render an organized being perfect in its kind, is that the germ from which it springs, shall be complete in all its parts, and sound in its whole constitution. If we sow an acorn, in which some vital part has been destroyed, the seedling plant, and the full grown oak, if it ever attains to maturity, will be deficient in the lineaments which were wanting in the embryo root ; if we sow an acorn entire in its parts, but only half ripened, or damaged by damp or other causes in its whole texture, the seedling oak will be feeble, and will probably die early. A similar law holds good in regard to man. A second organic law is that the organized being, the moment it is ushered into life, and so long as it continues to live, must be supplied with food, light, air, and other physical aliment requisite for its support, in due quantity, and of the kind best suited to its particular constitution. Obedience to this law is



rewarded with a vigorous and healthy developement of its powers ; and in animals, with a pleasing consciousness of existence and aptitude for the performance of their natural functions ; disobedience to it, is punished with feebleness, stunted in growth, general imperfections or death.

A third organic law applicable to man, is, that he shall duly exercise his organs ; this condition being an indispensable requisite to health. The reward of obedience to this law, is enjoyment in the very act of exercising the functions, pleasing consciousness of existence, and the acquisition of numberless gratifications and advantages, of which labor, or the exercise of our powers, is the procuring means ; disobedience is punished with derangement and sluggishness of the functions, with uneasiness or positive pain, and with the denial of gratification to numerous faculties.

The earth is endowed with the capability of producing an ample supply for all our wants, provided we expend muscular and nervous energy in its cultivation ; while in most climates it refuses to produce if we withhold this labor and leave it waste. Farther, the Creator has presented us with timber, metals, wool, and countless materials, which by means of muscular power, may be converted into clothing, and are so benevolently adapted to each other, that with rational restraint on population, a few hours labor each day from every individual capable of labor, would suffice to furnish all with every commodity that would really add to enjoyment.

So far, then, the external world appears to be wisely and benevolently adapted to the organic system of man ; that is, to his nutrition, and to the developement and exercise of his corporeal organs ; and the natural law appears to be, that all that desire to enjoy the pleasures attending sound and vigorous muscular and nervous systems, must expend in labor the energy which the Creator has infused into these organs. A wide choice is left open to man as to the mode in which he shall



exercise his nervous and muscular system. The laborer for instance, tills the ground, and the squire engages in the chase. The penalty of neglecting this law is debility, bodily and mental lassitude, imperfect digestion, disturbed sleep, bad health, and if carried to a certain length, death. The penalty for over-exerting these systems, is exhaustion, mental incapacity, the desire of strong stimulants, such as ardent spirits, general insensibility, and grossness of feeling and perception, with disease and shortened life. Society has not recognised this law, and in consequence, the higher orders despise labor and suffer the penalty, while the lower orders are oppressed with toil, and undergo the second. The penalties serve to provide motives for obedience to the law, and wherever it is recognised, and the consequences are discovered to be inevitable, men will no longer shun labor as painful and ignominious, but resort to it as a source of pleasure, as well as to avoid the pains inflicted on those who neglect it.

If a system of living and occupation were to be formed for human beings, founded on the exposition of their nature which we have given, it would be something like this : 1st. So many hours a day would be required to be dedicated by every individual in health, to the exercise of his nervous and muscular systems, in labor calculated to give scope to these functions. The reward of obeying this requisite of his nature would be health, and a joyous animal existence ; the punishment of neglect, is disease, low spirits, and death.

2d. So many hours a day should be spent in the sedulous employment of the knowing and reflecting faculties ; in studying the qualities of external objects, and their relations, not with the view of accumulating mere abstract and barren knowledge, but of enjoying the positive pleasure of mental activity, and of turning every discovery to account, as a means of increasing happiness, or alleviating misery. The leading object should always be to find out the relationship of every object to our own nature, organic, animal, moral, and intellectual, and to keep that relationship habitually in



mind, so as to render our acquirements directly gratifying to our various faculties. The reward of this conduct would be an incalculably great increase of pleasure, in the very act of acquiring knowledge of the real properties of external objects, together with a great accession of power in reaping ulterior advantages, and in avoiding disagreeable affections.

3d. So many hours a day ought to be devoted to the cultivation and gratification of our moral sentiments ; that is to say, in exercising these in harmony with intellect, and especially in acquiring the habit of admiring, loving, and yielding obedience to the Creator and his institutions. This last object is of vast importance. Intellect is barren of practical fruit, however rich it may be in knowledge, until it is fired and prompted to act by moral sentiment. In our view, knowledge by itself is comparatively worthless and impotent compared with what it becomes when vivified by elevated emotions. It is not enough that intellect is informed ; the moral faculties must simultaneously co-operate, yielding obedience to the precepts which the intellect recognizes to be true.

An organized being, we have said, is one which derives its existence from a previously existing organized being. Whatever the ultimate object of the Creator in constituting organized beings, may be, it will scarcely be denied that part of his design is, that they should enjoy their existence here ; and if so, every particular part of their system will be found conducive in its intention to this end. The first law then, that must be obeyed to render an organized being perfect in its kind, is, that the germ from which it springs shall be complete in all its parts, and sound in its whole constitution ; the second is, that the moment it is ushered into life, and as long as it continues to live, it should be supplied with food, light, air, and every physical aliment necessary for its support ; and the third law is, that it duly exercise its functions. When all these laws are obeyed, the being should enjoy pleasure from its organized frame, if its Creator is benevolent, and its constitution



should be so adapted to its circumstances, as to admit of obedience to them, if its Creator is wise and powerful. Is there then no such phenomenon on earth, as a human being existing in full possession of organic vigor from birth till advanced age, when the system is fairly worn out? Numberless examples of this kind have occurred, and they show one demonstration, that the corporeal frame of man is so constituted as to admit the possibility of his enjoying organic health and vigor during the whole period of a long life.

Now a natural law never admits of an exception; for example—as no man ever sees without eyes, or digests without a stomach, we are entitled to say, that the best condition in which an organized being has ever been, is fairly within the capabilities of the race. A human being, vigorous and healthy from the cradle to the grave, could no more exist, unless the natural constitution of his organs permitted it, of design, than vision could exist without eyes. Health and vigor cannot result from infringement of the organic laws; for then pain and disease would be the objects of these laws, and beneficence, wisdom and power could never be ascribed to the Creator who had established them. Let us hold, then that the organized system of man, in itself, admits of the possibility of health, vigor, and organic enjoyment, during the full period of life, and proceed to inquire into the causes why these advantages are not universal.

One organic law is, that the germ of the infant being must be complete in all its parts, and perfectly sound in its condition, as an indispensable requisite to its vigorous developement, and full enjoyment of existence. If the corn that is sown is weak, wasted and damaged, the plants that spring from it will be feeble, and liable to decay. The same law holds in the animal kingdom; and we would ask, has it hitherto been observed by man? It is notorious that it has not. Indeed, its existence has been either altogether unknown, or in a very high degree disregarded by human beings. The



feeble, the sickly, the exhausted with age, and the incompletely developed, through extreme youth, marry, and without the least compunction regarding the organization which they shall transmit to their offspring, send into the world miserable beings, the very rudiments of whose existence are tainted with disease.

If we trace such conduct to its source, we shall find it to originate either in animal propensity, intellectual ignorance, or more frequently in both. The inspiring motives are generally merely appetite, avarice or ambition, operating in the absence of all just conceptions of the impending evils. The punishment of this offence is debility and pain, transmitted to the children, and reflected back in anxiety and sorrow on the parents. Still the great point to be kept in view, is, that these miseries are not legitimate consequences of the observance of the organic laws, but the direct chastisement of their infringement. These laws are unbending, and admit of no exception: they must be fulfilled, or the penalties of disobedience will follow. On this subject, profound ignorance reigns in society. From such observations as we have been able to make, we are convinced that the union of certain temperaments and combinations of mental organs in the parents, are highly conducive to health, talent and morality in the offspring, and *vice versa*; and these conditions may be discovered and taught with far greater certainty, facility, and advantage, than is generally imagined. It will be time enough to conclude that men are naturally incapable of obedience to the organic laws, after their intellects have been instructed, their moral sentiments trained to the observance of the Creator's natural institutions, as at once their duty, their interest, and a grand source of happiness, and they continuing to rebel.

A second organic law regards nutriment, which must be supplied of a suitable kind, and in due quantity. This law requires also free air, light, cleanliness, and attention to every physical arrangement by which the functions of the body may be favored or impaired. A



third organic law is, that all our functions shall be duly organized ; and is this law observed by mankind ? Many persons are able, from experience, to attest the severity of the punishment that follows from neglecting to exercise the nervous and muscular systems, in lassitude, indigestion, irritability, debility, and general uneasiness that attend a sedentary and inactive life.

No person after having his intellect and sentiments imbued with a perception of, and belief in, the natural laws as now explained, can possibly regard muscular exertion and mental activity, when not carried to excess, as any thing else than enjoyments kindly vouchsafed to him by the benevolence of the Creator. The notion that moderate labor and mental exertion are evils, can originate only from ignorance, or from viewing the effects of over-exhaustion as the result of the natural law, and not as the punishment of infringement of it.

If then, we sedulously inquire, in each particular instance, into the causes of the sickness, pain, premature death, and general derangement of the corporeal frame of man which we see around us, and endeavor to discover whether it has originated in obedience to the physical and organic laws, or sprung from an infringement of them, we shall be able to form some estimate how far bodily suffering is justly attributable to imperfections of nature, and how far to our own ignorance and neglect of divine institutions.

In the first place, the physical and organic laws when truly discovered, appear to the mind as institutions of the Creator, wise and salutary in themselves, unbending in their operation, and universal in their application. They interest our intellectual faculties, and strongly impress our sentiments. The necessity of obeying them comes upon us with all the authority of a mandate of God. But if we are made acquainted with the elements of the physical world, and with those of our organized system—with the uses of the different parts of the latter, and the conditions necessary to their healthy action—with the causes of their derangement,



and the pains consequent thereon : and if the obligation to attend to these conditions be enforced on our moral sentiments and intellect, then the motives to observe the physical and organic laws, as well as the power of doing so, will be greatly increased. It is only by being taught the principles on which consequences depend, that we see the invariableness of the results of the physical and organic laws, acquire confidence in and respect for the laws themselves, and fairly endeavor to accommodate our conduct to their conduct.

Having traced bodily sufferings in the case of individuals, to neglect of, or opposition to, the organic laws, by their progenitors or by themselves ; and if it be true that the natural laws must be obeyed as a preliminary condition to happiness in this world, and if virtue and happiness be inseparably allied, the religious instructors of mankind may probably discover in the general and prevalent ignorance of these laws, one reason of the limited success which has hitherto attended their own efforts at improving the condition of mankind ; and they may perhaps perceive it to be not inconsistent with their sacred office, to instruct men in the natural institutions of the Creator, in addition to his revealed will, and to recommend obedience to both. They exercise so vast an influence over the members of society, that their countenance may hasten, or their opposition retard by a century, the practical adoption of the natural laws as guides of human conduct.

When we speak of the works of nature, effort, or the operation of nature, we mean those rules or principles which govern the action, and the operations of those articles or substances which have the power to support the living system ; nature therefore, is the susceptibility of the living organs and fibres of the human body, and should be acted upon by stimulants whether in health or diseased ; for it is very evident that disease must be cured by stimulants, as well as health and life sustained by them ; the susceptibility of the living fibres being acted upon, and that stimulants are capable of acting



upon them, we suppose is derived from certain principles innate in both, or which is naturally inherent in them. This stimulant, we have stated, is derived from the food we eat, and the air we breathe ; they being taken into the stomach and lungs, and is decomposed and formed into a fluid, and distributed to all parts of the body ; this is produced by a principle innate in both the substance and the organs into which it is received ; this is said to take place according to the natural laws ; therefore, the laws of nature are simply those rules or principles which govern the action or effects of stimulants on the living system.

We have endeavored to show in our former remarks, that life is not natural, but a forced state, and must be kept up in the living system by the continued application of a foreign power ; the nature of this power must be a stimulant, and should be of a pure and wholesome kind. It is supposed that every article or substance which has any power to support or sustain the living system, does it by a stimulating or forcing operation. It was remarked by Dr. Howard, that in disease, the natural healthy stimulant powers are measureably cut off, particularly the food, and the organs being impaired are not capable of properly supplying those which remain ; hence the body becomes emaciated, and the strength fails. In this situation there is, therefore, less power to act upon and stimulate nature to increased exertion or effort to repel or throw off disease. If it were by an effort of nature that disease was cured, this event could happen only at the very onset, as it must be admitted that nature's power to make an effort is then at zenith, and is growing weaker and weaker as disease progresses.

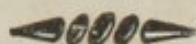
If human health and happiness be thus effectually prompted by strict attention to the conditions which regulate the vital and animal functions, nothing can be more useful than to communicate to every intelligent being, such a measure of knowledge as will enable him to avoid the infringement of those laws which regulate



the organic system. There is a right way to do every thing respecting human happiness and human life. When they are brought about in this way, the desired end will always be accomplished. But how are we to be directed in obtaining a knowledge of that? The answer is at hand; by examining with critical attention the way that nature directs. It is by tracing the channels in which the great Architect of nature designed things to flow, that we are to get the most important truth respecting the proper use of things, and the way to produce effects with which human happiness is connected. In doing this, it requires an accurate discrimination between art and nature—between the truth and what appears to be truth—the work of man and the work of God. Our eyes are frequently dazzled with the work of art, so that those channels which nature has provided, and through which good is continually flowing to the human race, are not discovered. This is especially so in regard to the science of medicine. Theories of disease are built in art, and not in nature, to remove it. To affirm that there is nothing in the appearance or nature of things indicating to us their use, would be to affirm that the earth was made without design, and that its Creator has no wisdom.



## PART III.



### ANATOMY AND PHYSIOLOGY.

Anatomy is a science which treats of the conformation, the situation and structure of the organs, while Physiology regards in a more especial manner, the functions of the animal economy. Anatomy is divided into two branches—special and general anatomy. The former has for its object the particular study of each individual organ enjoying an action peculiar to itself; it describes the physical properties, the form and relative situation, and shows the mutual arrangement of the elementary tissues which contribute to its formation. The human body is composed of solids and fluids, the latter of which, form by far the most considerable share. In the general formation of the human skeleton, there is no essential difference between that of the male and female, except the female is more slender or delicately formed, and the hip bones as a general thing, are more widely spread than the male.

The bones exhibit every variety of figure and size, according to the part in which they are situated, and the office which they are intended to fulfil. They are usually divided into long, short, and flat; the number by most anatomists is computed to be two hundred and forty-eight distinct bones. The head containing sixty-three, including thirty-two teeth, fifty-three in the trunk, sixty-eight in the upper extremities, and sixty-four in the lower extremities. The cavities and depressions on the external surface of the bones, serve for the attachment of the muscles and ligaments, and by giving the fibres of the former a more extensive surface of insertion, without increasing the size of the bone, they afford them more room for contraction. They serve



also for the reception of some of the more delicate organs, for the passage of blood-vessels and nerves, and a variety of other purposes which it would be needless to enumerate.\*

Physiology, or the history of the functions which characterize living beings, is thus a subject of peculiar interest; and human physiology, or that which is about to engage our attention, is as important in its practical consequences, as it is attractive to rational curiosity. In its widest sense it comprehends an exposition of the functions of the various organs of which the human frame is composed; of the mechanism by which these are carried on; of their relations to each other, or the means of improving their developement and action; of the purposes to which they ought severally to be directed; and of the manner in which exercise ought to be conducted, so as to secure for the organ the best health, and for the function the highest efficiency. A true system of physiology comes thus to be the proper basis, not only of a sound physical, but of a sound moral and intellectual education, and of a rational hygiene; or in other words, it is the basis of every thing having for its object the physical and mental health and improvement of man; for so long as life lasts, the mental and moral powers with which he is endowed, manifest themselves through the medium of organization, and no plan which he can devise for their cultivation, that is not in harmony with the laws which regulate that organization, can possibly be successful.

But besides the power of resisting the operation of the ordinary chemical and physical laws, living bodies are distinguished by other properties peculiar to themselves. Unlike inorganized matter, which exists in the same form from the beginning, bodies endowed with the principle of life, derive their origin, as we have before remarked, from previously existing living bodies of the same nature as themselves; and they in their turn give birth to others, and in this way the succession



is kept up. Unlike the inert material which retains its properties unaltered throughout endless ages, the living body is constantly undergoing changes, from the first to the last moment of its existence ; and these are exemplified on the largest scale, in the early stages of youth, maturity, old age, and death. Unlike inorganic matter, which neither grows nor decays, living bodies require a constant supply of nourishment to admit of their growth in youth, and to replace the worn out particles which are regularly thrown off at every period of life ; and unlike inanimate objects, the properties of which never alter, living bodies cease at last to exist, and their component elements, deprived of the principles of life, again become subject to the ordinary laws of matter, and are speedily decomposed and scattered about as if life had never been. The above properties, it may be observed, are common to vegetable and animal life ; but animals possess others peculiar to themselves. Among the most remarkable of these are sensation, thought, voluntary motion, and the faculty of communicating to each other their thoughts and feelings, through the medium of natural or artificial language. These are great marks of distinction, and considered in a general point of view, amply suffice to divide the two great classes of animated beings ; and while some animals exhibit individual powers in higher perfection, man stands far their superior, not only in combining in his own person all the senses and faculties which they possess, but in being endowed with moral and intellectual powers which are denied to them, and which at once place him at the head of the living creation, and constitute him a moral, intelligent, and responsible being.

So numerous and important are the various organs of which the human frame is composed, and so closely are they linked with each other in their action, that in treating of them, it is difficult, or rather impossible to follow any arrangement which shall admit of every statement being at first fully understood. On the pres-



ent occasion, however, our object being merely to communicate a general knowledge of a few of the more important functions, partly with a view to the direct practical purposes to which such information may be applied, and partly for the sake of arousing public attention to the necessity of including this branch of science in common education.

**BONES.** Bones are chiefly composed of phosphate of lime, and are covered with a dense membrane which takes the name of periosteum, except where it covers the skull, when it is termed pericranium. This membrane also contains the blood-vessels by which the bones are nourished. It was remarked by Dr. Lambert, in his lectures on Physiology and Anatomy, that when the bones are sound and in a healthy state, they are insensible, but when diseased they are extremely painful. The earthy matter of which they are composed, gives them strength and hardness ; in rickets, says Dr. Mattson, there is an absorption of the earthy part of the bones which leaves them in a soft and flexible state.

**CARTILAGES.** Cartilages, or gristles, as they are termed, are white elastic substances, differing in density in different situations ; they very much resemble bones in appearance, and like them are liable to be fractured. They cover the ends of the bones which move upon each other, as in case of the joints. In children they form a substance for bone before the latter is formed ; the front part of the ribs in adults, is found to be composed entirely of cartilages.

**LIGAMENTS.** Ligaments are strong fibrous cords or bands, which bind together the bones, strengthen and defend the joints, and strengthen the attachment of various organs, and keep the liver, spleen, and other organs in their places. They are whitish, elastic bodies, possessing little sensibility in a healthy state, but are acutely sensible when inflamed. The capular ligaments, so called, surround the joints like a bag, and prevents the escape of the synovia, or juicy fluid, which



is intended to lubricate the parts, and enable the ends of the bones to play easily upon each other.

**MUSCLES.** Muscles are distinct and compact bundles of fleshy fibres which are found on animals, immediately on removing the skin and subjected fat, and which, although perhaps not known to all under generic or scientific names, are familiar to every one as constituting the red fleshy part of meat. Every muscle or separate bundle of fleshy substance, is composed of innumerable small fibres or threads, each separate from, and at the same time closely connected with the other sheath or cellular membranes enveloping it, but it is so thin as not to obscure the color of the fibres, or attract notice. The muscles are attached to the bones by means of tendons, which are hard, firm, white, inelastic and very strong, blending themselves almost imperceptibly with the muscular fibres. Some of them are round and others flat; the end which adheres to the most fixed part is usually called the organ, and that which adheres to the more moveable part, the insertion of the muscle or tendon. Muscles are divided into two classes, the voluntary and involuntary; the first are under the control of the will, enabling us to walk, run, or perform any other act we choose. The involuntary muscles, says Dr. Mattson, are those over which the will has no influence. The heart is a muscular texture, acting with tremendous force, propelling the blood through the arteries; and the stomach, intestines, and bladder, are all furnished with muscular fibres, by which they are endowed with a contractable power; but they are nevertheless uncontrolled by the will, and are therefore denominated involuntary muscles. Muscles, generally speaking, may be divided into three parts, of which the middle fleshy portion, called the belly, is the most conspicuous and important. The other two are the opposite ends, commonly called the origin and insertion of the muscle. The belly is the bulky and fleshy part, by the contraction or shortening of the fibres of which, the two ends are brought nearer to



each other, while the belly itself swells out in a lateral direction. When we attempt to lift a heavy weight in the hand or to overcome any resistance, the muscles which bend the arm may be seen and felt to start out rigid and well defined in their whole extent, while their extremities tend powerfully to approach each other, and of course, to carry along with them the bones to which they are attached. In consequence of this tendency, if a weight be unexpectedly knocked out of the hand before we have time to obviate the result, the muscles, having then no resistance to overcome, will contract violently, and throw the hand up with a jerk. Voluntary motion is, in fact, effected by the contraction of muscles acting upon and changing the relative positions of the bones or solid support of the system, and therefore almost all muscles are attached to one bone by their origin, and to another by their insertion; the former being merely the fixed extremity, towards which the opposite and more moveable end, called the insertion, carried by the shortening of the intervening belly of the muscles.

**MEMBRANES.** They are exceedingly liable to inflammation which alters, if it be not speedily removed, their structure and changes the nature of the fluid which they secrete. They are a thin substance lining and covering different parts of the body. Membranes are of different kinds, varying in structure, appearance, and functions, which are termed serous, mucus, and cellular membranes.

*Serous Membrane* surrounds the brain, lines the chest, abdomen, and covers nearly all the organs contained in the two cavities. It is a thin transparent membrane; its free surface being smooth and shining, presents a beautiful silvery white appearance; it is constantly lubricated by a thin serous fluid. Under a certain state of disease, the serous membrane pours out an increased amount of fluid from its surface, which collects in the different cavities constituting the different kinds of dropsy. It is sometimes covered with a



false membrane, which unites with the morbid production from the adjoining proportions of serous membrane, that glues the two surfaces together ; in this manner the cavity of the chest or abdomen has been completely obliterated ; or organs may adhere together, although in a healthy state, have no connection with each other. Dr. Mattson also says, when it is inflamed, it is prone to form adhesions, so that the lungs may become glued to the internal surface of the ribs, or the intestines may contract adhesions among themselves.

*Mucous Membrane.* The mucus, unlike the serous membrane, do not form adhesions when they are inflamed, or the intestinal canal, windpipe, and other free passages, would become closed or obliterated in severe inflammatory affections. This is called mucous membrane from its being constantly covered on its free surface with a mucous or slimy fluid. It lines the nostrils, mouth, windpipe, air passages of the lungs, stomach and intestines, where it is thrown into folds, which prevents the food from passing too quickly through the intestinal canal, and extends its absorbing surface. Its free surface has a velvety or spongy appearance ; every where it is covered with small eminences or depressions, from which exudes the mucus which lubricates it. It is plentifully supplied with blood-vessels, nerves and lymphatics, which are so intimately combined with the membrane, that they seem to form the greater part of its substance. During health the mucous membrane has more or less of a rose color. A false membrane forms upon its surface, which is coughed up in acute and chronic disease, but particularly in the latter. Blood not unfrequently exudes from this membrane, constituting hemorrhage, and this may take place from the lungs, stomach, or any other organ which it lines.

*Cellular Membrane* is a loose structure forming an innumerable number of little cells, differing in size and form, interspersed between the skin and muscles, and other solid parts of the body, and is universally dis-



tributed throughout the system, and imparts a smoothness and softness to the surface of the body. All the blood-vessels also, and nerves, are in their course attached to the neighboring parts by means of this substance. Many of the glands, too, which are composed of smaller masses, are united into one body by its intervention. It seems probable, indeed, that the membranes in different parts of the body, are composed of the cellular substance in a more consolidated state; and it is therefore very properly considered as an universal connecting medium in every part of the system. The different cells of this membrane communicating freely with each, is the reason why in dropsy, the water passes from one part of the body to another, and accumulates particularly in the more depending part.

It was remarked by a late writer, that into the cells formed by this membrane, is exhaled by the arteries, a watery vapor by which it is kept constantly moistened, and which is prevented during health from accumulating, by the action of the absorbents; when, however, from disease it is furnished in greater quantity than the latter vessels are able to remove, it fills and distends the cells of the membrane, producing local or general dropsical swellings. The uses of the cellular membrane are so important, that in all probability, animals could not exist without it. By uniting the fibres of the muscles into compact masses, it secures them from becoming entangled with each other, and with the minute blood-vessels, lymphatics, and nerves, which are every where distributed among them. At the same time, however, that it connects together the muscles, and preserves them in their relative situations, it is sufficiently loose to give full play to all their motions. It serves also the purpose of a soft and compressible cushion, interspersed among the muscles, and being always moist and slippery, renders their motions easy, and prevents friction.

**GLANDS.** Glands are a system of organs which generally differ both as to size and shape, and are com-



posed of blood-vessels and absorbents, and are designed to secrete from the blood certain fluids.

*Mucous Glands* are situated in the nostrils, mouth, windpipe, stomach, in the intestines and urinary bladder; it is supposed they furnish the mucus or slimy substance which lubricates those parts.

*Lymphatic Glands* are situated along the neck, arm-pits, and in the groins, and do not appear to secrete any kind of fluid, and have no other office than that of receiving and transmitting the lymphatic vessels.

*Salivary Glands.* There are three principal salivary glands; they are situated about the angle of the jaw and the root of the tongue; the first opens by a duct upon the inner surface of the cheek, and between the ear and the angle of the lower jaw. The second opens on the outer side of the penum or bridle of the tongue.

The last are situated under the tongue near its back part, and are in pairs and furnished with several ducts which pour secretion into the mouth.

*Lachrymal Glands* secrete a watery fluid, termed the tears, and are situated above the corner or angle of the eyes; the use of these glands is to moisten or wash out any extraneous matter from the eyes.

ANIMAL FLUIDS consist, first, of the fluids which are converted into blood; secondly, of the blood itself, which is the source and reservoir of all the other humors; and thirdly, of the fluids which are derived from the blood.

BLOOD-VESSELS are generally distinguished by the appellation of arteries and veins, and also include the heart. The arteries are strong, elastic, membranous tubes, which rise from the heart by two trunks, and convey the blood by their numerous branches to every part of the system. The arterial system consists of two principal trunks, which rise from each ventricle of the heart. The one, called the pulmonary artery, rising from the right auricle, and as it ascends, divides into two branches, one on either side of the aorta, the right to be ramified on the right lobe, and left on the left lobe



of the lungs. The other, called the aorta, rises from the left ventricle, passes upward towards the superior part of the thorax, furnishing large branches, which are distributed on the neck, head, and superior extremities ; after which it forms a curve, descending along the interior part of the left side of the body, furnishing branches to the viscera of the abdomen, and is divided between the fourth and fifth lumbar vertebræ into two secondary branches, which are distributed, after having sent branches to the pelvic viscera, on the inferior extremities. The large arteries are all deeply seated, and by this arrangement are protected from injury by accident.

**HEART.** The Heart is the grand focus or starting point of the blood, where it is propelled through the arteries to every part of the body. It is situated nearer the left than the right side of the thorax, and is a strong muscular body, of that class denominated hollow muscles ; it is divided into two cavities, called the right and left ventricles, and is connected at the base or broad part with two hollow muscles, denominated auricles. The arteries receive the blood from the heart, and carry it to every part of the body ; the motions of the blood are by no means uniform ; each contraction of the ventricle gives a propelling motion to its mass ; it passes twice through this organ in making one complete revolution in the body.

After the blood has been conveyed through the extreme arterial branches to every part of the body, and becomes worn out and is no longer fit for the support of life, it is then received by the veins which every where correspond with the extreme arteries ; as these veins proceed towards the heart, continuing to intercept each other, forming large tubes, until they are all concentrated into two trunks, termed the ascending and descending vena cava, and is emptied into the right auricle of the heart, and from thence it passes into the right ventricle, which is triangular and three sided in its form. Its interior side is convexed and forms a large portion



of the front part of the heart. The inside corresponds with the partition between the two ventricles. The flat or inferior side rests upon the diaphragm; the contraction of this muscle propels the blood through the pulmonary artery into the lungs, where the blood is essentially changed, and returns again through the four pulmonary veins into the left auricle, and thence passes into the left ventricle. The left auricle is smaller than the right, of a cuboid form, and is attached at the base of the left ventricle, which is consicle both in external figure and in the form of its internal cavity, forms the apex of the heart, by projecting beyond the right ventricle. By its contraction the blood is propelled through the aorta and its numerous branches, and again through every part of the body.

The blood that circulates through the body, is of two different kinds; the one red or arterial, and the other dark or venous blood. The former alone is capable of affording nourishment, and of supporting life. It is distributed from the left side of the heart all over the body, by means of an artery or blood-vessel, called the aorta, which subdivides in its course, and ultimately terminates in myriads of very minute ramifications, closely interwoven with, and in reality, constituting a part of the texture of every living part. On reaching this extreme point of its course, the blood passes into equally minute ramifications of veins, which in their turn, gradually coalesce and form larger and larger trunks, till they at last terminate in two large veins, by which the whole current of the venous blood is brought back in a direction contrary to that of the blood in the arteries, and poured into the right side of the heart. On examining the quality of the blood in these two systems of vessels, it is found to have undergone a great change in its passage from the one to the other. The florid hue which distinguished it in the arteries has disappeared, and given place to the dark color characteristic of venous blood. Its properties, too, have changed, and it is now no longer capable of sustaining life.



Two conditions are essential to the reconversion of venous into arterial blood, and to the restoration of its vital properties. The first is, an adequate provision of new materials from the food, to supply the place of those which have been expended in nutrition ; and the second is, the free exposure of the venous blood to the atmospheric air.

The first condition is fulfilled by the chyle or nutrient principles of the food being regularly poured into the venous blood just before it reaches the right side of the heart ; and the second, by the very important process of *respiration*, which takes place in the air cells of the lungs.

The venous blood having arrived at the right side of the heart, is propelled by the contraction of that organ into a large artery leading directly by separate branches to the two lungs, and hence called the pulmonary artery. In the innumerable branches of this artery, expending themselves throughout the substance of the lungs, the dark blood is subjected to the contact of the air inhaled in breathing, and a change in the composition both of the blood and the inhaled air, takes place, in consequence of which the former is found to have reassumed its florid or arterial hue, and to have regained its power of supporting life. The blood then enters minute venous ramifications, which gradually coalesce into larger branches, and at last terminate in four large trunks in the left side of the heart, whence the blood, in its arterial form, is again distributed over the body, to pursue the same course and undergo the same changes as before.

There are thus two distinct circulations, each carried on by its own system of vessels ; the one, from the left side of the heart to every part of the body, and back to the right side ; and the other, from the right side of the heart to the lungs, and back to the left. The former has for its object nutrition and the maintainance of life ; and the latter the restoration of the deteriorated blood, and the animalization or assimilation of the chyle from which that fluid is formed. As the food cannot become



a part of the living animal, or the venous blood regain its lost properties, until they have undergone the requisite changes in the air-cells of the lungs ; the function of respiration, by which these are effected, is one of pre-eminent importance in the animal economy, and well deserves the most careful examination. The quantity of blood is estimated in man to be from twenty-four to thirty pounds. The arteries may be distinguished from the veins, by their pulsations, which attend all but the minute branches ; the number of pulsations which physiologists suppose to take place in a minute, according to the age and circumstances, is as follows. At birth they are from 130 to 140 ; at one year, 125 ; at two years, 105 ; at seven years, 88 ; at fourteen years, 80 ; at adult age, 70 ; at old age, 55 to 60. Disease generally increases the pulse, though the reverse often happens. The pulsations of the arteries correspond exactly with the beating or contraction of the heart.

The termination of the arteries and the commencement of the veins, form a set of vessels which take the name of capillaries, and may be divided into those of the pulmonary, and those of the general system, and are spread throughout every part of the body, and form by their union, the most extensive part of the vascular system. The first being between the termination of the pulmonary arteries and veins, are distributed on the surface of the air-cells of the lungs, where blood which circulates through it, is changed from venous to arterial ; while the second is between the termination of the aortic arteries and the organ of the veins of the body. It is dispersed in different portions to the compound solids of the body, and the blood which circulates through it, is changed from arterial to venous blood ; the capillaries form a beautiful net work in the tissues of our organs.

**NERVES.** They are a system of organs, and have their origin in the brain and spinal marrow. Those which issue from the spinal marrow are in pairs, and



are thirty or thirty-one in number, which are distributed to different parts of the body. The spinal marrow issues from the cerebellum and passes downward through the vertebræ or backbone. The spine gives off through the orifices in the vertebræ, just beneath the ribs, several pairs of nerves, which divide and subdivide into such a multitude of ramifications or branches, that the point of a pin cannot be applied to any part of the surface, without sensation or pain being produced.

**BRAIN.** The brain consists of a large pulpy mass, externally formed into numerous varied, or convoluted furrows, being of a light reddish color near the surface, but internally, of a whitish or cream color. The cerebrum constitutes the uppermost and anterior portion of the brain; beneath which is situated the cerebellum, which is separated from the cerebrum by a transverse membrane called the tentorium; the cerebellum is the organ of passions, appetites and propensities; it is composed of two parts, or lateral lobes. On the interior part of the brain, commencing near its centre, and projecting backwards, between the lobes of the cerebellum, is situated the medulla oblongata. Both the cerebrum and cerebellum are connected with the medulla oblongata, and through it with each other. The connection between the brain and the organs of sense, and the other parts of the system, is maintained through the medium of the nerves and the spinal marrow. Those that have their origin in the brain, are termed cerebral, which issue in pairs, and are nine in number. The structure of the brain is so complicated, that less is known of its true nature, than that of most any other organ. It would therefore, be entirely out of place for us to attempt to describe it here, further than by giving some of its general functions. The Brain is the grand focus and fountain of perception and sensation, ideal and copereal. In other words, the brain is the grand laboratory or work-shop of the mind, where impressions are manufactured into ideas, and ideas are compared, associated, selected, &c., according to the talents, taste,



judgement, or desire of the individual. Another important use of the brain, is to receive and make us sensible of impressions made upon the organs of sense. But the precise manner in which the brain performs its important functions remains yet unknown.

We have stated that the brain gives off nine pairs of nerves. The various nerves of sensation and motion are given off near the base of the brain, some of them going to the organs of sense, and others to the skin and muscles of the face, head, and other more distant parts. The olfactory nerve, or nerve of smell, is given off and distributed to the nose. The optic nerve, or nerve of sight, goes to the eye. The moter or a nerve is distributed to the muscles of the eye-ball. Another pair issues apparently from the arch, called *pons valorii*, or bridge of varolius. It is a large compound nerve, and divides into three branches, which are ramified on almost all the parts connected with the head and face, and the upper and under jaw. It comprehends nerves both of sensation and motion, and one branch of it, ramified on the tongue, is the nerve of taste. Other branches supply and give sensibility to the teeth, glands and skin. The seventh or auditory nerve is distributed under the internal ear, and serves for hearing. The eighth or pneumogastric nerve, sends filaments to the windpipe, lungs, heart and stomach, and is of great importance in the production of the voice and respiration. It also influences the action of the heart, and the process of digestion.

These are the principal nerves which are more immediately connected with the brain. We have observed that those which supply the trunk of the body, and extremities, issue chiefly from the spinal marrow ; but we must pass over them without giving any farther discription, and return to the consideration of the brain. For much is depending upon this organ for the healthy action of all the other organs. The brain receives an unusually large supply of blood, in comparison with the rest of the body ; but the nature of its circulation,



although a very interesting object of study, being only indirectly connected with our present purpose, cannot now be discussed. Most physiologists are agreed that the different parts of the brain perform distinct functions, and that these functions are the highest and most important in the animal economy ; but there is great discrepancy of opinion as to what the function of each part is, and as to the best mode of removing the obscurity in which the subject is involved. It would be useless to examine here the merits of the respective theories and modes of inquiry, as the attempt would lead us too far from the practical aim of the work.

Suffice it to say, that all physiologists and philosophers regard the brain as the organ of mind ; that most of them consider it as an aggregate of parts, each charged with a specific function ; and that a large majority regard the anterior lobe as more immediately the seat of the intellectual faculties. Farther, by nearly universal consent, the brain is held to be also the seat of the passions and moral feelings of our nature, as well as of consciousness and every other mental act, and to be the chief source of that nervous influence which is indispensable to the vitality and action of every organ of the body. There are so few exceptions to the general belief of these propositions, that we consider ourselves fairly entitled to hold them as established.

**STOMACH.** The stomach is a membraneous sack much larger towards the left side than the right ; it has two orifices, one towards the left side, called the cardia, or upper portion where the gullet enters, another towards the right, called the pylorus which opens into the intestines. It consists of three coats, each of which performs a particular function. The outer coat is a firm, strong, shiny, membrane. The middle, or muscular coat is composed of fleshy fibres or layers. These fibres are capable of contraction and relaxation, and produce the peculiar motion of the stomach in digestion. The inner or mucous coat, is a soft, velvety membrane ; it is larger than the other two coats,



and is thrown into folds or wrinkles when the stomach is not fully distended. The food when partially digested by the motion of the stomach, is called chyme, which is poured into the duodenum ; it there meets and combines with bile and pancreatic juice, by which the process of digestion is completed ; the digested food is then called chyle. Blood vessels and nerves are distributed to the stomach, more extensively, than to any other organ. The great sympathetic influence exerted by the stomach upon them, affects other parts of the system ; hence it is termed the centre of sympathy. The sympathy of the stomach with other organs, renders it one of the most important parts of the animal economy. Hence the great majority of medicines which are intended to act on various parts of the body, are first applied to the stomach.

By substances being introduced into the stomach, we can make astonishing changes in the functions of the system. By medicines taken into the stomach, we can increase the action of the heart and arteries ; we can aid the functions of the skin ; we can allay pain, relieve spasms, &c. It is a matter of very little importance, whether these sympathies be direct, or whether the action of the brain must intervene between the application of the substance to the stomach, and the ultimate effect. Whatever morbid impressions are made upon it, become quickly transmitted to the liver, intestines, skin, brain and lungs, while the diseased condition of the latter, are likewise participated in by it. Hence we see that the stomach is one of the most common inlets of disease. The large class of disease, classed under the name of fevers, in all probability owe their origin to an irritation, or inflammation of the lining membrane of the stomach.

**INTESTINES.** They are attached to the stomach by the duodenum, and are divided into small and large ; the small intestines fill the middle and fore part of the abdomen, while the large fill the upper and under parts, as well as the sides of that cavity. They are furnished



almost through their whole length, with minute absorbent vessels, termed lacteals, which take up the nutritious particles from the chyle and pour them into the thoracic duct. The small intestines assist in the preparation of the chyle and propels their contents towards the large intestines. The grosser part of the food which will not serve for nourishment, or which is not taken up by the absorbent vessels, passes on through the intestines, and are discharged by the evacuations of the bowels.

**LIVER.** The Liver is situated in the upper portion of the abdomen, immediately below the diaphragm or midriff, and is divided into unequal lobes; the large one is situated in the right hypochondric region, and the smaller one extends across the epigastric region towards the left. The upper surface of the liver is convex and smooth, corresponding to the concavity of the diaphragm. The liver is a glandular body whose office is to secrete bile, a fluid of vast importance in the process of digestion. The bile is secreted in a sack or bag, termed the gall bladder. The liver secretes or forms the bile from the blood; bile differs, however, from the ordinary secretions, it being from venous and not from arterial blood.

The blood which supplies the stomach and the greater part of the intestinal canal, is taken up by the proper veins of these organs; but instead of its being carried back to the heart, to be from thence conveyed to the lungs in order to be reconverted into arterial blood, it is conveyed into the substance of the liver, to be employed by that organ in the formation of bile. The bile thus secreted is carried by a canal into the intestines, a few inches below the inferior orifice of the stomach. The bile is a fluid of a yellowish green color; it is composed of water, albumen, soda, phosphate of lime, common salt, phosphate of soda, a small quantity of lime, and a peculiar substance called picromel.

**DIGESTION.** To have our food thoroughly masticated is important to an easy digestion. The food being



duly masticated, it passes directly into the stomach, where it is mixed with a fluid termed gastric juice, which exudes from little cells in the inner coat of the stomach, when this organ is excited or stimulated with food. During this movement, the food is moistened with the gastric juice, and a thin layer of that part of the food which is in contact with the inner surface of the stomach, becomes changed into a slightly acid paste, of a greyish color, called chyme; successive layers, which as they are formed, are carried out of the stomach through the pylorus, or right orifice, into the duodenum, undergoing the same change, until the digestion of the food in the stomach is completed.

During the conversion of food into chyme, both orifices of the stomach are closed. The average time for the digestion of a meal, says Dr. Beaumont, is about three hours and a half; it takes a much longer time, however, for the digestion of some articles, while others digest in a much less time. As the chyme accumulates in the duodenum, and moves slowly onward through it and the other smaller intestines, the softer and more fluid part passes to its surface, and the absorbent vessels, the mouths of which open upon the inner coat of the bowels, select the materials which enter into the formation of the chyle—a white fluid resembling milk, and nearly approaching in its composition to the blood. The chyle passes through the lacteal vessels, by the action of which, important changes are supposed to be produced in the chyle, and finally is emptied into the thoracic duct, from which it becomes connected with the venous blood just before it enters the heart.

**KIDNEYS.** The kidneys are situated without the cavity of the abdomen, and are of a reddish color, being placed each side of the spine, near the two lower false ribs; their length is about six inches, and their breadth about four. The office of the kidneys is to secrete a fluid termed urine; when this fluid is secreted by the kidneys, it is poured into the cavity or pelvis of



the kidney ; it then passes into the ureters, which are about the size of a quill, and are somewhat curved in their course from the kidneys to the bladder ; running downwards seven or eight inches, they enter the latter near its neck, where they empty their fluids or contents ; they run some distance between the coats of the bladder, before they open into its cavity, and this forms a valve which prevents the fluid from returning towards the kidneys when the bladder is very full or unusually distended.

**BLADDER.** The bladder is placed at the anterior part of the pelvis, and is a membranous sack of a considerable size ; the use of this organ is to receive the urine ; it retains it for a time, and then expels it through the urethra from the body.

**LUNGS.** The lungs consist of two soft, spongy bodies, denominated right and left lobes, which are situated one on each side of the heart, within the cavity of the chest or thorax, and is separated from the abdomen by the diaphragm or midriff. They consist of the ramifications of the bronchea terminating in minute vessels called air-cells ; these air vessels communicate with each other throughout the substance of each lung ; so by inflating one portion, the air passes on till it is entirely filled. The right lung is the largest and is divided into three lobes ; the left has only two. The lungs are connected with the heart by means of veins or blood-vessels, and to the neck by means of the wind-pipe. The circulation of the blood through the lungs, is carried on by means of arteries, capillaries and veins, and is carried to all parts of the body. The blood returns by means of the veins to the heart, and is propelled to the lungs, and is there exposed to the atmospheric air which is inhaled into them. The air imparts oxygen or vital heat to the blood, and changes it from the dark color which it has in the veins, and converts it from venous to arterial blood, and thereby fits it to nourish and sustain the body.



*Function of the Lungs.* A knowledge of the structure and functions of the lungs, and of the conditions favorable to their healthy action, is of great importance, for on their welfare depends that of every other part of the body. When we take into consideration that a large number of persons fall victims annually to pulmonary consumption, and that these are generally among the young and most gifted, we cannot but feel most deeply interested in obtaining some acquaintance with the organization which is the result of that affection, and with the condition most conducive to the due performance of its functions and the preservation of its health. The quantity and quality of the blood have a most direct and material influence upon the condition of every part of the body. If the quantity sent to the arm, be diminished by tying the arteries through which it is conveyed, the arm, being then imperfectly nourished, wastes away, and does not regain its plumpness till the full supply of blood be restored. In like manner, when the quality of that fluid is impaired by deficiency of food, by bad indigestion, impure air, or imperfect sanguification in the lungs, the body and all its organs become disordered and more or less waste away. Thus in consumption, death takes place chiefly in consequence of respiration not being sufficiently perfect to admit of the formation of proper blood in the lungs. The exposure of the blood to the action of the air, seems to be indispensable to every variety of animated creatures. The contact of the blood and air produces a mutual change in the properties of both; the blood inhaling a vital quality of the air, which is supposed to be oxygen gas; the air abstracting the useless morbid parts from the blood, thought to be carbon.

In man, and the more perfect of the lower animals, it is carried on by the lungs, the structure of which is admirably adapted to that purpose; carbon is supposed to give to the venous blood its dark purple color, which the air abstracts from it, to restore it to its scarlet hue; hence it undergoes highly important changes, without



which, life in a very limited period would become extinct. From this description of the structure and use of the lungs, it will be obvious that several conditions are necessary for us to know and observe, which are essential to the healthy performance of the important function of respiration. Among these we may rank a healthy original formation of the lungs. No fact is better established, than that which proves the hereditary transmission from parents to children, of the constitutional liability to pulmonary disease, and especially to consumption ; yet no condition is less attended to, in forming matrimonial engagements. Children of scrofulous and consumptive parents are generally precocious, and their minds being early matured, they engage early in the business of life, and often enter into the marriage state before their bodily frame comes to maturity.

For a few years, however, every thing may seem to go on prosperously, and a numerous family gathers around them. All at once however, even while youth remains, their physical powers begin to give way, and they drop prematurely into the grave, exhausted by consumption, or some other wasting disease, and leave children behind them destined, in all probability, either to be cut off as they approach maturity, or to run through the same delusive but fatal career as that of the parents from whom they derived their existence. It may not be easy to enforce upon the young and inexperienced, the requisite degree of attention to these circumstances ; if the young were properly instructed at an early period, in the leading facts and principles of the human constitution, too early marriages would be refrained from. For many young people of both sexes fall a sacrifice to early marriage, who might have withstood the ordinary risks of life, and lived together in happiness, if they had delayed their union for a few years, and allowed time for the consolidation of their constitutions. Impaired health in the parents whether constitutional or acquired, especially if caused by imperfect indigestion, and assimilation, is productive of a tenden-



cy to scrofula and consumption in the children. If parents in general were duly impressed with the truth and bearing of this fact, many of them might be induced, on account of their children, to take care of their own health.

Another condition to the healthy action of the lungs and to the free and salutary exercise of respiration, is a due supply of healthy food, as it seems that from these both, stimulus and nourishment were drawn. If the food is defective, or digestion impaired, the blood is impoverished in quality, and rendered unfit for adequate nutriment, the lungs speedily suffer, and that often to a fatal extent. Among the higher classes, again, the blood is impoverished, and the lungs are injured, not for want of food, but for want of the proper power of adequately digesting it, which gives rise to dyspepsia, or consumption from bad digestion. Late hours, heavy meals, and insufficient exercise, are productive of the evils of which we are speaking.

*Evils of compressing the Chest.* An essential condition to the enjoyment of good health, is the free inhalation of pure air. This is one of the vital functions which begins at the moment of birth, and ends only with life itself, which cannot be suspended even for a short period, without the greatest uneasiness and danger. A free, and easy expansion of the chest, is indispensable to the full play and dilatation of the lungs. Whatever has a tendency to impede it, whether in dress or position, is injurious to health. But whatever favors the free expansion of the chest, will promote the healthy fulfillment of the respiratory functions. By whatever means we compress the chest, whether by stays, corsets, or tight waistbands, operates most injuriously, by compressing the thoracic cavity, and impeding the due dilatation of the lungs, which is the frequent cause of consumption. It has been found in many consumptive cases, that the lungs had become adhered to the ribs ; and in other cases the liver has actually been found indentated by the excessive pressure



of the chest, caused by tight lacing. But our female readers, probably, will not be ready to admit that tight lacing is injurious to their health ; but we think that they would be readily convinced of the injurious effects of compressing any organ or set of organs, by placing a bandage around the arm, immediately above the elbow, and draw it as tight as they do their corset strings, and if they cannot draw it tight enough alone, they should employ some one to assist them, as they frequently do in tightening their corsets. If this should remain on the arm for any considerable time, we think the inconvenience and pain felt by the compression of this organ, would convince any rational mind, of the injurious effects it must have on any organ that is compressed ; if such injurious effects can be produced by the compression of so muscular an organ as the arm, it must be evident to every mind, that so slender or delicate an organ as the chest, would be seriously injured by being compressed, as it is in the present fashion in which females generally dress. Hence it is obvious why females are more subject than males, to dyspepsia, indigestion, consumption, liver affections, spinal complaints, and numerous other diseases which the female sex are subject to.

Were parents better instructed in physiology, they would not encourage or permit their children to be brought up under the fashionable practice of tight dressing, and the serious consequences arising from it would be obviated. The admirable harmony established by the Creator between the various constituent parts of the animal frame, renders it impossible to pay regard to, or infringe the conditions required for, the health of any one, without all the rest participating in the benefit or injury. Another condition of healthy respiration is, a regular supply of pure fresh air, without which, the requisite change in the constitution of the blood, as it passes through the lungs, cannot be effected. In order to enable the reader more fully to understand the nature of this change, we give the compound



nature of atmospheric air ; it consists of about 78 per cent of nitrogen or aortic gas, 21 per cent of oxygen, and not quite one per cent of carbonic acid, or fixed air ; such is the composition of pure air when taken into the lungs in the act of breathing. When it is expelled from them, however, its composition is found to be considerably altered. The quantity of nitrogen remains nearly the same, but eight, or eight and a half per cent of the oxygen or vital air, has disappeared, and been replaced by an equal amount of carbonic acid. In addition to these changes the expelled air is loaded with moisture ; simultaneously with these occurrences, the blood collected from the veins, which enters the lungs of a dark color, and unfit for the support of life, assumes a florid red hue, and acquires the power of supporting life. The carbonic acid contained in the expired air is formed by the secretion of carbon from venous blood, in its passage through the lungs ; this immediately unites with the oxygen of the air, and forms carbonic acid, in which shape it is then thrown out in respiration. Much depends on the supply of oxygen contained in the air which we breathe ; and that air is fit or unfit for respiration in exact proportion as its quantity of oxygen approaches, or differ from, that contained in pure air. If consequently, we attempt to breathe nitrogen, hydrogen, or any other gas not containing oxygen, the result will be speedy suffocation ; while if we breathe air containing a too high proportion of oxygen, the vital powers will speedily suffer from excess of stimulus. From oxygen being thus essential to life and respiration, it is often called vital air.

We can now appreciate the importance of a due supply of fresh air, wherever living beings are congregated. That the due renovation of the air which we breathe is really influential in protecting us against the inroads of disease, may be inferred also, from instances of an opposite kind, in which health has been preserved, apparently through its agency, even in the midst of pestilence. In preventing contagion from fever, a



constant circulation of air is known to be the most effectual means. The stomach and lungs generally suffer first, from impure air, but the general system, sooner or later becomes affected. An individual possessing a strong constitution, may indeed withstand the bad consequences of occasionally breathing an impure atmosphere, but even he will suffer for a time. He will not experience the same amount of mischief from it as the invalid, but will be perfectly conscious of a temporary feeling of discomfort, the very purpose of which is, like pain from a burn, to impel him to shun the danger, and seek relief in a pure air. The comparative harmlessness of a single exposure is the circumstance which blinds us to the magnitude of the ultimate result, and makes us fancy ourselves safe and prudent, when every day is surely, though imperceptibly, adding to the sum of the mischief.

Let any one who doubts the importance of this condition of health, watch the dispeptic, the pulmonary, or the nervous invalid, through a season devoted to attendance on crowded parties and public amusements, and he will find the frequency of headache, colds, and other fits of illness, increases in exact proportion to the accumulated exposure, till, at the end of spring, a general debility has been induced, which imperiously demands a cessation of festivity, and a change of scene and air. This debility is often erroneously ascribed to the unwholesome influence of spring.

**SKIN.** The skin is the outer covering of the body ; it varies in texture and thickness in different parts, according to their function and use ; it is spread over the whole surface of the body, which serves to bind together, and to protect from injury the subjacent and more delicate textures ; it is smooth, soft, and delicate in youth and in females ; firm and more resisting in middle age and in males ; flabby and wrinkled in old age and after disease. It is much thicker on some parts than others, as on the soles of the feet and palms of the hands : it is one of the great outlets by which



the matter that is no longer wanted, is discharged from the body. The structure of the skin, like that of every other part of the human system, displays the most striking proof of the transcendent wisdom and beneficence of its great Creator. Though simple in appearance and design, it is a compound of many elements, and the seat of as great a variety of functions. It is composed of three layers of membranes, the scarf skin or cuticle, mucous coat, and true skin, as it is called, which immediately encompasses the body. These distinctions should be kept in view, as it will be perceived that each is endowed with a particular function peculiar to itself.

The cuticle or scarf skin, is the outermost of the three layers, and is that which is raised in blisters ; it is of a thin consistence and an insensible membrane, and has no perceptible blood-vessels or nerves, and consequently neither bleeds or feels pain when cut or injured. The structure of the cuticle is in harmony with its use, and serves as an insensible intermedium between external objects and the delicate nervous expansions on the surface of the true skin ; it serves as a physical defence against friction ; by impeding vaporation, it preserves the true skin in that soft and moist state which is essential to its utility ; it also by impeding absorption, enables man to expose himself without injury to the action of numerous agents, which were it not for this protection, would immediately be absorbed, and cause the speedy destruction of health and life. Those parts of the skin which are most exposed to pressure and friction, such as the palms of the hands and soles of the feet, are provided with a thicker layer of cuticle to defend them from injury.

The mucous coat is of a consistence between that of a solid and fluid, and is situated immediately beneath the scarf skin, and interposed between the cuticle and cutis, forming a numerous net work, which is remarkable chiefly as being the seat of the coloring matter of the skin ; it varies in color according to the complex-



ion of individuals ; in fair people, it is nearly white ; in brown people, of a dusky hue ; and in the negro, black. From all that is known regarding the mucous coat, it may be viewed generally, as merely a thin soft covering, placed between the outer and inner skin, to protect the nerves and vessels of the latter, and give them their requisite softness and pliancy.

The cutis or true skin is composed of fibres, intersecting each other in various directions, and leaving between them, space for the transmission of blood-vessels, nerves and absorbents ; this constitutes the chief thickness of the skin, and is far the most important of the three, both in structure and function. Unlike the cuticle and mucous coat, which are homogeneous in their whole extent, and apparently without organization, the true skin, is very delicately organized, and endowed with the principles of life in a very high degree. It is not only a beautiful and efficacious protector of the subjacent structures, but it is the seat of sensation and touch, and the instrument of a very important exhalation, namely perspiration, which is a most powerful agent in the preservation of health. Its looser internal surface, which is united with the cellular membrane in which the fat is deposited, presents a great number of cells or cavities, which penetrate obliquely into the substance, and towards the external surface of the skin. These cells are traversed by innumerable blood-vessels and filaments of nerves, the latter passing through to be ramified on the outer surface of the inner skin ; these are the true organs of touch and sensation, and are therefore most plentifully distributed where the sense is most acute. So extensive are the blood-vessels and nervous filaments in the skin, that it cannot be punctured with the point of a pin without drawing blood, or transfixing the nerve and causing pain.

*Functions of the Skin.* In order for us to correctly understand the important purposes of the true skin, we must distinguish the constituent parts, and consider it in



virtue of each of them. One of its great functions, is to exhale waste matter from the system ; it is also a joint regulator of the heat of the body, and an agent of absorbents, and the seat of sensation and touch ; besides performing the mechanical office of a shield to the parts beneath, the skin is admirably fitted, by the great supply of blood which it receives, for its use as a secreting and excreting organ. The whole animal system is in a state of constant decay and renovation ; and while the stomach and alimentary canal take in new materials, the skin forms one of the principal outlets or channels by which the old, altered, or useless particles are eliminated from the body ; and hence, as all the secretions and excretions are derived directly from the circulating blood, the skin obviously requires a supply large in proportion to the extent of its functions. Every one knows that the skin perspires, and that checked perspiration is a powerful cause of disease and death ; but few have any just idea of the real extent and influence of this exhalation, such as we shall attempt to exhibit it. When the body is overheated by exercise in warm weather, a copious perspiration soon breaks out, which by evaporating and so carrying off the superfluous heat, produces an agreeable feeling of coolness and refreshment.

*Perspiration.* This is the higher and more obvious degree of the function of exhalation ; but in the ordinary state, the skin is constantly giving out a large quantity of waste materials by what is called insensible perspiration, a process which is of great importance to the preservation of health, and which is called insensible, because the exhalation being in the form of vapor, and carried off by the surrounding air, is invisible to the eye ; but its presence may often be made manifest, even to the sight, by the near approach of a dry cool mirror, on the surface of which it will soon be condensed so as to become visible. Many attempts have been made to estimate accurately the amount of exhaled matter carried off through the skin ; but so many diffi-



culties stand in the way of obtaining precise results, and the difference in different constitutions, and even in the same person at different times, is so great, that we must be satisfied with an approximation to the truth. *Sanctorius*, who carefully weighed himself, his food, and his excretions, in a balance every day for thirty years, came to the conclusion that five out of every eight pounds of substances taken into the system, passed out of it again by the skin, leaving only three to pass off by the bowels, the lungs, and the kidneys.

The celebrated *Lavoisier* and *M. Seguin* entered into the same field of inquiry, and with greater success, as they were the first to distinguish between the cutaneous and pulmonary exhalation. *M. Seguin*, after attending minutely to the circumstances of the diet, temperature, &c., and allowances being made for these, the results at which he arrived, were that the largest quantity of insensible perspiration from the lungs and skin together, amounted to thirty-two grains per minute, three and a quarter ounces per hour, or five pounds per day. Of this, the cutaneous constituted three-fourths, or sixty ounces in twenty-four hours. The smallest quantity observed, amounted to eleven grains per minute, or one pound eleven and a half ounces in twenty-four hours, of which the skin furnished about twenty ounces. The medium or average amount, was eighteen grains a minute, of which eleven were from the skin, making the cutaneous perspiration in twenty-four hours about thirty-three ounces. When the extent of surface which the skin presents is considered, these results do not seem extravagant. But even admitting that there may be some unperceived source of fallacy in the experiments, and that the quantity is not so great as is here stated, still after making every allowance, enough remains to demonstrate that exhalation is a very important function of the skin. And although the precise amount of perspiration may be disputed, the greater number of observers agree that the cutaneous exhalation is more abundant than the united excretions of both bowels and



kidneys. What we have considered relates only to the insensible perspiration. That which is caused by great heat or severe exercise, is evolved in much greater quantity, and by accumulating at the surface, it becomes visible and forms sweat. In this way, a robust man may lose one or two pounds weight in the course of one hour's severe exertion ; and if this be suddenly checked, the consequences in certain states of the system, are often of the most serious description.

*Checked Perspiration.* When the surface of the body is chilled by cold, the blood-vessels of the skin become contracted in their diameter, and hinder the full entrance of the red particles of the blood, which are therefore of necessity collected and retained in greater quantity in the internal organs. Taking even the lowest estimate of Lavoisier, we find the skin endowed with the important charge of removing from the system about twenty ounces of waste matter every twenty-four hours ; and when we consider that the quantity not only is great, but is sent forth in so divided a state as to be invisible to the eye, and that the whole of it is given out by the very minute ramifications of the blood-vessels of the skin, we perceive at once why these are so extremely numerous that a pin's point cannot touch any spot without piercing them ; and we see an ample reason why, independently of the impressions made through the medium of the nervous system, checked perspiration should prove so detrimental to health ; because for every twenty-four hours during which such a state continues, we must either have twenty ounces of useless and hurtful matter accumulating in the body, or have some of the other organs of excretion grievously overtasked, which obviously cannot happen without disturbing their regularity and well-being. People know the fact, and wonder that it should be so, that cold applied to the skin, or continued exposure in a cold day, often produces a bowel complaint, a severe cold in the chest, or inflammation of some internal organ ; but were they taught, as they ought to be,



the structure and uses of their own bodies, they would rather wonder that it did not always produce one of these effects.

In tracing the connection between suppressed perspiration and the production of individual diseases, we shall find that those organs which possess some similarity of function, sympathize most closely with each other. Thus the skin, the bowels, the lungs, the liver, and the kidneys sympathize readily, because they have all the common office of throwing waste matter out of the system, each in a way peculiar to its own structure ; so that if the exhalation from the skin, for example, be stopped by long exposure to cold, the large quantity of waste matter which it was charged to excrete, and which in itself is hurtful to the system, will most probably be thrown upon one or other of the above named organs, whose functions will consequently become excited ; and if any of them, from constitutional or accidental causes, be already weaker than the rest, as often happens, its health will naturally be the first to suffer. In this way, the bowels become irritated in one individual, and occasions bowel complaints ; while in another, it is the lungs which become affected, giving rise to catarrh or common cold, or perhaps even to inflammation. When, on the other hand, all these organs are in a state of vigorous health, a temporary increase of function takes place in them, and relieves the system, without leading to any local disorder ; and the skin itself speedily resumes its activity, and restores the balance among them.

*Evils of Checked Perspiration on Different Organs.*

When the lungs are weak, and their membrane is habitually relaxed, and secretes an unusual amount of mucus from its surface, the mass of blood thrown inward upon the lungs by cold applied to the skin, increases that secretion to a high degree. Were this secretion to accumulate, it would soon fill up the air-cells of the lungs and cause suffocation ; but to obviate this danger, the Creator has so constituted the lungs,



that accumulated mucus, or any foreign body coming in contact with them, excites the convulsive effort called coughing, by which a violent and rapid expectoration takes place, with a force sufficient to hurry the mucus or other foreign body along with it. Thus a check given to perspiration by diminishing the quantity of blood previously on the surface, naturally leads very often to increased expectoration and cough; or in other words, to common cold. The lungs, as already noticed, excrete a large proportion of waste materials from the system; and the kidneys, the liver, and the bowels have in so far a similar office. In consequence of this alliance with the skin, these parts are more intimately connected with each other in healthy and diseased action, than with other organs. But it is a general law, that whenever an organ is unusually delicate, it will be more early affected by any cause of disease than those which are sound; so that, if the nervous system be weaker than other parts, a chill will be more likely to disturb its health than that of the lungs, which are supposed, in this instance, to be constitutionally stronger; or if the muscular and fibrous organizations be unusually susceptible of disturbance, either from previous illness or from natural predisposition, they will be the first to suffer, and rheumatism will ensue.

A bowel complaint may arise from overeating, as well as from a check to perspiration; but although the thing to be cured is the same, the means of cure ought obviously to be different. In the one instance, an emetic or laxative to carry off the offending cause, and in the other, a diaphoretic to open the skin, would be the most rational and efficacious remedies. The close sympathy between the skin, the stomach and bowels, has often been noticed, and it is now well understood that most of the obstinate eruptions which appear on the face and rest of the surface, owe their origin to disorders of the digestive organs, and are most successfully cured by treatment directed to the internal disease. In noticing this connexion between the suppression of



perspiration and the appearance of internal disease, we do not mean to affirm that the effect is produced by the physical transference of the suppressed exhalation to the internal organ. In many instances, the chief impression seems to be made on the nervous system ; and the manner in which it gives rise to the resulting disease is often extremely obscure. We have seen that the insensible perspiration removes from the system, without trouble and without consciousness, a large quantity of useless materials, and at the same time keeps the skin soft and moist, and thereby fits it for the external sense.

*Absorption.* A moist state of the atmosphere is favorable to absorption ; and hence if noxious effluvia are at the time floating in the air, they are more easily received into the system. It is on this account that night air is so unwholesome, particularly in marshy districts, which are loaded with moisture and miasma, or marsh poison ; for when the air is dry as well as hot, free evaporation takes place, and absorption is almost null, so that little or no inconvenience is felt, and health often remains uninjured. The process of absorption is carried on by vessels fitted for the purpose, which are thence named absorbent vessels, or simply absorbent. In the skin they are small and numerous.

In man, absorption from the surface is greatly retarded by the intervention of the cuticle ; and it is universally admitted that when this obstacle is removed, the process goes on with great vigor. Thus arsenic applied to cancerous sores, and strong solutions of opium to extensive burns in children, have been absorbed in quantities sufficient to poison the patients. When the perspiration is brought to the surface of the skin, and confined there either by injudicious clothing, or by want of cleanliness, there is much reason to suppose that its residual parts are again absorbed, and act on the system as a poison of greater or less power, according to its quantity and degree of concentration, thereby producing fever, inflammation, and even death



itself ; for it is established by observation, that concentrated animal effluvia form a very energetic poison.

*Nervous Influence.* The nervous tissues of the skin, are thus not only important instruments for receiving and conveying to the mind, accurate impressions in regard to the properties of external objects, but they are even essential to our continued existence. The pain which is caused by injury, is no doubt very disagreeable, but in its uses it is a positive blessing, in warning us against the danger, and even certain destruction, which would speedily overtake us, if we had no such monitor at hand. If we had no nerves on the surface to communicate to us a lively impression of cold, we might inadvertently remain inactive in a temperature which would not only suspend perspiration, but benumb the powers of life ; or we might approach so near the fire or boiling fluids, as to have the organization destroyed before we were aware ; whereas by the kind interposition of the nerves, we cannot when perspiring freely, be exposed to the cold air, without an unpleasant sensation being experienced, impelling us to attend to our safety, and to keep up our heat either by additional clothing or by active exercise. A due supply of arterial blood is also requisite for the action of the nerves of sensation. If they be deprived of this, as by exposing the body to a degree of cold sufficient to drive the blood from the surface, the nerves become almost insensible, and severe wounds may be received in this state without the individual being conscious of the accident, or feeling the slightest pain.

The insensible perspiration being composed of a large quantity of water, which passes off in the form of invisible vapor, and of various salts and animal matter, a portion of which remains adherent to the skin, the removal of this residue by washing, becomes an indispensable condition of health, the observation of which, particularly in early life, when waste and nutrition are both very active, prevents the appearance of



cutaneous and other diseases common in infancy. Not only, therefore, is daily washing of the body required at that age, but a frequent change of clothing is essential, and every thing in the shape of dress ought to be loose and easy, both to allow free circulation through the vessels, and to permit the insensible perspiration to have a free exit, instead of being confined to and absorbed by the clothes, and held in contact with the skin, as often happens, till it gives rise to irritation. Many youths, particularly females, and those whose occupations are sedentary, pass days, and weeks, and months, without ever experiencing the pleasing glow and warmth of a healthy skin, and are habitually complaining of chilliness of the surface, cold feet, and other symptoms of deficient cutaneous circulation. Their suffering, unfortunately, does not stop here, for the unequal distribution of the blood oppresses the internal organs, and too often, by insensible degrees, lays the foundation of tubercles in the lungs, and other maladies which show themselves only when arrived at an incurable stage. Young persons of a consumptive habit will generally be found to complain of this increased sensibility to cold, even before they become subject to those slight catarrhal attacks which are so often the immediate precursors, or rather, the first stages of pulmonary consumption. All who value health, and have common sense and resolution, will therefore take warning from signs like these, and never rest till equilibrium of action be restored. For effecting this purpose, warm clothing, exercise in the open air, sponging with vinegar and water, the warm bath, regular friction with a flesh brush or hair glove, and great cleanliness, are excellently adapted.

*Dress.* The rule is, in all cases, not to dress in an invariable way, but to put on clothing in kind and quantity sufficient, in each individual case, to protect the body effectually from an abiding sensation of cold, however slight. Warmth, however, ought not to be sought for in clothing alone. The Creator has made



exercise essential as a means ; and if we neglect this, and seek it in clothing alone, we act at the risk, or rather with the certainty of weakening the body, relaxing the surface and rendering the system extremely susceptible of injury from the slightest accidental exposure, or variation of temperature and moisture. Many good constitutions are thus ruined, and many nervous pulmonary complaints brought on, to imbecile existence, and to reduce the sufferer to the level of a hot-house plant. Female dress errs in one important particular, even when unexceptionable in material and quantity. From the tightness with which it is made to fit on the upper part of the body, not only is the insensible perspiration injudiciously and hurtfully confined, but that free play between the dress and the skin, which is so beneficial in gently stimulating the latter by friction at every movement of the body, is altogether prevented, and the action of the cutaneous nerves and vessels, and consequently the heat generated, rendered less than that which would result from the same dress more loosely worn. Every part and every function are thus linked so closely with the rest, that we can neither act wrong as regards one organ without all suffering, nor act rightly without all sharing in the benefit. We can now appreciate the manner in which wet and cold feet are so prolific of internal disease, and the cruelty of fitting up schools and similar places without making adequate provision for the welfare of their young occupants. The circumstances in which wet and cold feet are most apt to cause disease, are those where the person remains inactive, and where consequently, there is nothing to counterbalance the unequal flow of blood which then takes place towards the internal parts ; for it is well known that a person in ordinary health may walk about or work in the open air with wet feet for hours together, without injury, provided he put on dry stockings and shoes immediately on coming home. It is, therefore, not the mere state of wetness that causes



the evil, but the check to perspiration and the unequal distribution of blood to which the accompanying coldness gives rise to.

*Advantages of wearing Flannel.* Flannel is a bad conductor of heat, and therefore prevents the animal economy from being too quickly dissipated, and protects the body from the injurious effects of too sudden external changes. From its presenting a rough and uneven, though soft surface to the skin, every movement of the body in labor or in exercise, gives, by the consequent friction, a gentle stimulus to the cutaneous vessels and nerves, which assists their action, and maintains their functions in health ; and being at the same time of a loose texture, flannel is capable of absorbing the cutaneous exhalations to a larger extent than any other material in common use.

Many are in the custom of waiting till winter has fairly set in before beginning to wear flannel. This is a great error in a variable climate like ours, especially when the constitution is not robust. It is during the sudden changes from heat to cold, which are so common in autumn, before the frame has got inured to the reduction of temperature, that protection is most wanted and flannel is most useful.

*Bathing.* Bathing is of great importance in the preservation of health. When the saline and animal elements left by the perspiration are not duly removed by washing or bathing, they at last obstruct the pores and irritate the skin. And it is apparently for this reason that in the Eastern and warmer countries, where perspiration is very copious, ablution and bathing have assumed the rank and importance of religious observances. Those who are in the habit of using the flesh-brush daily, are at first surprised at the quantity of white dry scurf which it brings off ; and those who take a warm bath for half an hour at long intervals, cannot have failed to notice the great amount of impurities which it removes, and the grateful feelings of comfort which its use imparts.



The warm, tepid, cold, or shower bath, as a means of preserving health, ought to be in as common use as a change of apparel, for it is equally a measure of necessary cleanliness. Many, no doubt, neglect this, and enjoy health notwithstanding; but many, very many, suffer from its omission, and even the former would be benefitted by employing it. For general use, the warm bath seems to be much more suitable than the cold bath, especially in winter, and for those who are not robust and full of animal heat. Where the constitution is not sufficiently vigorous to secure reaction after the cold bath, as indicated by a warm glow over the surface, its use inevitably does harm. A vast number of persons are in this condition; while on the contrary, there are few indeed who do not derive evident advantage from the regular use of the warm bath, and still fewer who are hurt by it. Where the health is good and the bodily powers are sufficiently vigorous, the cold bath during summer, and the shower bath in winter, may serve every purpose required from them. But it should never be forgotten that they are too powerful in their agency to be used with safety by every one, especially in cold weather.

For general use the warm is certainly the safest and most valuable, especially during the autumn, winter and spring. It gives a cheerful tone and activity to all the functions, and may be used every day, or on alternate days, for fifteen or twenty minutes, with advantage. Persons of sound health and strength may take a bath at any time, except immediately after meals. But the best time is in the forenoon or evening, two or three hours after a moderate meal, when the system is invigorated by food, but not oppressed by the labor of digestion. These apply of course only to persons in an ordinary state of health. If organic disease, headache, feverishness, constipation, or other ailment exist, bathing ought never to be employed without medical advice. When the stomach is disordered by bile, it also generally disagrees. But that it is a safe and



valuable preservative of health in ordinary circumstances, and an active remedy in disease, is most certain.

The vapor bath is also extensively used in the cure of disease ; its use is attended by the best effects, particularly in chronic ailments, and where the water-bath is felt to be oppressive by its weight ; and there can be no question that their action is chiefly on the skin, and through its medium, on the nervous system. As a means of determining the blood to the surface, promoting cutaneous exhalation and equalizing the circulation, they are second to no remedy now in use ; and consequently, in a variety of affections which the encouragement of these processes is calculated to relieve, they may be employed with every prospect of advantage. The prevalent fear of catching cold, which deters many from using the vapor-bath, even more than from warm bathing, is founded on a false analogy between its effects and those of profuse perspiration from exercise or illness. The latter weakens the body, and by diminishing the power of reaction, renders it susceptible of injury from sudden changes of temperature. But the effect of the vapor-bath, properly administered, is very different. When not too warm, or too long continued, it increases instead of exhausting the strength, and by exciting the vital action of the skin, gives rise to a power of reaction which enables it to resist cold better than before.

Experience proves that the vapor-bath is useful both as a preventive, and a remedial agent. Many a cold, and many a rheumatic attack arising from checked perspiration, or long exposure to the weather, might be removed or broken up if timely used. In chronic affections, not only of the skin itself, but of the internal organs with which the skin most closely sympathizes, as the stomach and intestines, the judicious application of the vapor-bath is productive of great relief. In chronic or pulmonary complaints, we believe it is not only safe, but very serviceable, particularly in those affections of the mucous membrane which resemble



consumption in so many of their symptoms. Like all powerful remedies, however, the vapor-bath must be administered with proper regard to the condition and circumstances of the individual ; and care must be taken to have the feet sufficiently warm during its use. If, from an irregular distribution of the steam, the feet be left cold, headache and flushing are almost sure to follow.

We have been more particular in noticing these facts, in order to show that proper attention to the health of the skin, is really beneficial in preserving the tone of the nervous system, and in contributing to our mental and bodily comfort. If the bath cannot be had at all places, soap and water may be obtained every where ; hence there is no necessity of any individual neglecting to keep the skin clean. If the constitution be feeble, vinegar and water, or salt and water may be used daily ; it is a safe means of stimulating and cleansing the skin. A rough and rather coarse towel is a very useful auxiliary in such ablutions.

Many affections of a consumptive character are preceded or begin by deficiency of vital action in the skin and extremities, and a consequent feeling of coldness in the feet and on the surface, and susceptibility of catarrhal affections from apparently inadequate causes, often long before any pressing symptoms, directly connected with the lungs, occur to attract notice. In this state, means systematically directed to restoring the cutaneous circulation, will frequently be successful in warding off consumption ; and even when the disease is formed, the same means will help to prolong life and relieve suffering, while they will go far to effect a cure in the chronic affections of the bronchial membrane which stimulate consumption, and are sometimes undistinguishable from it, and which when mismanaged, are equally fatal.

These two remedies have the most general reputation in the successful treatment of chronic and pulmonary diseases ; both owe much of their influence to



their exciting cutaneous functions, and equalizing circulation. Regular courses of medicine are also administered in early stages of consumption, whooping cough, chronic catarrh, and other obstinate pulmonary affections, and are always attended with good effects when properly administered. So far as our observation goes, all these remedies are productive of good, chiefly in proportion as they determine the blood to the surface and equalize the circulation in the system.

*Benefits of Riding.* Riding on horse-back has often proved beneficial in consumptive complaints; it seems to have a beneficial effect, partly from the bodily exercise, giving general vigor to the circulation, and partly from the gentle friction between the skin and clothes, which stimulate the cutaneous vessels and nerves. This exercise we find excites the skin beneficially, and keeps it pleasantly warm and generally bedewed with moisture, even to the extremities of the toes. And in proportion to this, advantage is derived; it relieves the chest, increases the strength and improves the appetite.

When the lungs are weak, riding is a most salubrious exercise, and possesses a great advantage over walking, as it does not hurry the breathing. It calls into more equal play all the muscles of the body, and at the same time engages the mind in the management of the animal, and exhilarates by the free contact of the air and more rapid change of scene. Even at a walking pace, a gentle but universal and constant action of the muscles is required to preserve the seat, and adapt the rider's position to the movements of the horse; and this kind of muscular action is extremely favorable to the proper and equal circulation of the blood through the extreme vessels, and the prevention of its undue accumulation in the central organs. The gentleness of the action admits of its being kept up without accelerating respiration, and enables a delicate person to reap the combined advantages of the open air and proper exercise for a much longer period than would otherwise



be possible, from the tendency to equalize the circulation, stimulate the skin, and promote the action of the bowels ; it is also excellently adapted as an exercise for dyspeptic and nervous invalids.

*Voyages at Sea.* Voyages at sea are also beneficial in pulmonary complaints, in consequence of seasickness, which causes a healthy flow of blood from the internal parts to the surface, and because the gentle and constant exercise occasioned by the movement of the ship, is admirably adapted to a debilitated state of the system, when other exercise cannot be taken without hurrying the breathing, or inducing fatigue ; and because pure, fresh, bracing air is of infinite importance in all, and especially in pulmonary affections.

While we insist upon the maintenance of a healthy action of the skin, it must not be supposed that health is obtained from that circumstance alone. So beautifully is the animal economy constituted, that, as we have had occasion to observe, it is impossible to use rational means for the invigoration of one organ or function without good being done to all ; and so closely are the various parts allied to each other, that, to describe fully the functions and sympathies of every one, we would require to make the circle of the whole. From this appears the fallacy of those who select the derangement of any one organ as the origin and source of all existing diseases.

Some functions are no doubt more important, and their disorders exercise a wider influence over the general health, than others ; but no one who knows the structure of the human body and the relations of its parts, or has carefully observed the phenomena of disease, can be satisfied with such exclusive reasoning. The stomach, the bowels, the liver, and the nervous system, have each had their patrons, and the derangement of each has been specially held out as the grand fountain of human misery. Facts, however, go against the exclusiveness in favor of any one organ ; such facts, rightly considered, demonstrate the reverse, and show



that successful practice requires views and remedies founded on a careful examination of every function.

When we say, therefore, that attention to the state of the skin is influential in preserving and restoring health, we wish to represent it as an important, but by no means exclusive condition, and to ascribe to the means used for invigorating its functions, their due share of action upon other organs and functions. Attention to the skin, therefore, must never be considered for a moment as superseding attention to the other functions. It must be regarded as a part only, though an important part, of a rational and consistent treatment ; and its efficacy will often depend in no small degree, on the care which is taken to support its effects by a scrupulous attention to the necessities of the rest of the system.

*Muscular Action.* Another condition requisite to good health, is a proper exercise of the muscular system. The use of the muscles is obviously to enable us to carry into effect the various resolutions and designs—or volitions, as they are termed by philosophers—which have been formed by the mind. But while fulfilling this grand object, their active exercise is at the same time, highly conducive to the well-being of many other important functions. By muscular contraction the blood is gently assisted in its course through the smaller vessels, and more distant parts of the body, and its undue accumulation in the internal organs is prevented. The processes of digestion, respiration, secretion, absorption, and nutrition, are promoted, and the health of the whole body immediately influenced. The mind is exhilarated or depressed by the proper or important use of muscular exercise ; and it thus becomes a point of no slight importance to establish general principles by which that exercise may be regulated. The first requisite for healthy and vigorous muscular action is the possession of strong and healthy muscular fibres.



In every part of the animal economy, the muscles are proportionate in size and structure to the efforts required of them ; and it is a law of nature, that whenever a muscle is called into frequent use, its fibres increase in thickness within certain limits, and become capable of acting with greater force and readiness ; and that, on the other hand, when a muscle is little used, its volume and power decreases in a corresponding degree. When in a state of activity, the quantity of blood which muscles receive is considerably increased ; and in consequence, those which are much exercised become of a deeper red color than those which are less used. The reason of this will be evident, when we recollect that to every organ of the body, arterial blood is an indispensable stimulus, and that its supply is, during health, always proportioned to the extent and energy of the action.

When any part is stinted of its usual quantity of blood, it very soon becomes weakened, and at last loses its power of action, although every other condition required for its performance may remain unimpaired. It is the infringement of this condition that entails so much misery upon our young manufacturing population.

Wasted by excessive labor, long confinement, and miserable diet, the muscular system is stinted in growth and weakened in structure ; and the blood impoverished by insufficiency of nourishing food, and by a vitiated atmosphere, is no longer capable of repairing the waste consequent upon exercise, or of affording a healthy stimulus to the vessels and nerves which animate the muscles. Languor, debility, and exhaustion of mind necessarily follow. In youth not only must the waste of materials be replaced, but an excess of nourishment must be provided, to admit of the continued growth which is the chief function of our earlier years. If this be denied, the developement of the bodily organs often receives a check which no subsequent treatment can remedy, and a foundation is laid for diseases and debility which afterwards imbecillize and endanger life. Youth



requires the best and most nutritious food, and such ought regularly to be provided. Weak broth, twice cooked hashes, and quantites of vegetables and watery milk, are not sufficient sustenance for a young and growing frame. It is not to be wondered at, that with such a diet, worm powders and stomachic medicines are in constant demand, and that even with the assistance of these, the girl shoots up, thin pale, and fleshless. Let it not be supposed that we wish to make a god of the belly ; our object is the reverse of this, and we are sure that no better means can be used to effect it, than to give a sufficiency (not an excess) of wholesome and nourishing food, which alone will satisfy the stomach, and obviate the constant craving which is a frequent and painful concomitant of deficiency of food.

Something more than mere muscle, however, is required for the production of regulated or voluntary motion. The muscle itself, though perfect in strength and in structure, would otherwise remain inert. A stimulus is required to excite it to activity and to direct its contraction, and this stimulus is conveyed to it by the nerves. If the will be feeble and undecided, the muscular movements will be equally weak and irresolute ; whereas, if the mind be powerfully excited and the will energetic, strength, rapidity, and decision will equally characterize all the movements of the body.

The effects of exercise upon the organs employed are very remarkable, and useful to be known. When any living part is called into activity, the processes of waste and renovation which are incessantly going on in every part of the body, proceed with greater rapidity, and in due proportion to each other. At the same time the vessels and nerves become excited to higher action, and the supply of arterial or nutritive blood and of nervous energy becomes greater. When the active exercise ceases, the excitement thus given to the vital functions subsides, and the vessels and nerves return to their original state.



*Rules for Exercise.* Persons accustomed to daily activity will feel invigorated by a walk of four or five miles in the open air, whereas the same distance will weaken another who has not been in the habit of walking at all. But instead of inferring from this, as is often done, that exercise in the open air is positively hurtful to the latter, reason and experience coincide in telling us that he has erred only in overtaking the powers of his system, and that to acquire strength and activity, he ought to have begun with one mile, and to have gradually extended his walk in proportion as the muscles became invigorated by the increased nutrition consequent on well regulated exercise.

A person recovering from fever begins by walking across his room perhaps ten times a day, and gradually extends to twenty or thirty times, till he gains strength to go into the open air. On going out, a walk of ten minutes proves sufficient for him at first ; but by degrees his strength and flesh increases, and his exercise is prolonged till he arrives at his usual standard. Such is the order of nature ; but many sedentary people have no patience for such slow progress, and when urged to take exercise, they grudge the trouble of going out for a short time, and think that if a walk of half a mile does them good, one of a whole mile will do more ; and when they suffer from the error, they shelter their ignorance under the general assumption that exercise does not agree with them.

From these principles it follows, first, that to be beneficial, exercise ought always to be proportioned to the strength and constitution, and not carried beyond the point, easily discovered by experience, at which waste begins to succeed nutrition, and exhaustion to take the place of strength ; secondly, that it ought to be regularly resumed after a sufficient interval of rest, in order to ensure the permanence of the healthy impulse given to the vital powers of the muscular system ; and lastly, that it is of the utmost consequence to join with it a mental and nervous stimulus.



Those who go out only once in four or five days, are always at work but never advancing ; for the increased action induced by the previous exercise, has fully subsided long before the succeeding effort is begun ; and so far as increased nutrition, strength, and greater aptitude for exertion are concerned, no progress whatever is made. Active exercise ought to be avoided immediately after a heavy meal. In such circumstances, the functions of the digestive organs are in the highest state of activity ; and if the muscular system be then called into considerable action, the withdrawal of the vital stimuli of the blood and nervous influence from the stomach to the extremities, is sufficient almost to stop the digestive process. When we know that we shall be forced to exertion soon after eating, we ought to take a very moderate meal, in order to avoid setting the stomach and muscles at variance with each other, and exciting feverish disturbance. In travelling by a stagecoach, where no repose is allowed, this precaution is invaluable. A short walk or stroll should always be taken after a meal, if the weather will admit, before engaging in active exercise.

In order to render exercise as beneficial as possible, particularly in educating the young, it ought always to be taken in the open air, and to be of a nature to occupy the mind as well as the body. Gardening, hoeing, social play and active sports of every kind, is preferable to regular and unmeaning walks, and tend in a much higher degree to develope and strengthen the bodily frame, and to secure a straight spine, and an erect and firm but easy and graceful form. A formal walk is odious and useless to many girls, who would be delighted and benefited by spending three or four hours a day in spirited exercise and useful employment. Let those mothers who are afraid to trust to nature for strengthening and developing the limbs and spines of their daughters, attend to FACTS and their fears will vanish.

It is notorious that a majority of those girls who, in opposition to the laws of nature, are encased in stays,



and get insufficient exercise, become deformed ; an occurrence which is, on the other hand, comparatively rare in boys who are left in conformity with the designs of nature, to acquire strength and symmetry from free and unrestricted muscular action. Different kinds of exercise suit different constitutions. The object, of course, is to employ all the muscles of the body, and to strengthen those especially, which are too weak ; hence exercise ought to be often varied, and always adapted to the peculiarities of individuals.

Having already, when treating of the skin, sufficiently explained the principles on which clothing ought to be adjusted, it is unnecessary to recur to its utility as a means of regulating the temperature of the human body. If the use of suitable clothing is found insufficient to keep the body warm, we may infer with certainty, although no other sign of bad health has appeared, that some internal cause exists, affecting and impairing one or other of the sources of animal heat, till the special cause be discovered and removed, the evil itself will continue undiminished.

Not an unfrequent cause of suffering from cold during the day, in delicate persons, is the common practice of sleeping on very soft feather beds, in which the body sinks so deep as to be almost surrounded by feathers. The undue warmth thence arising, relaxes the surface of the body, weakens the action of the skin, and thus renders the individual unusually susceptible of the impression of cold when exposed out of doors. When a feather bed is used, it ought to be so well stuffed as to afford ample resistance to the weight of the body.

In winter, young people often suffer from being daily confined, for many hours in succession, without exercise, in rooms insufficiently heated. Nothing tends more than this to lower the general standard of health, and prepare the individual for the future inroads of insidious disease. In scrofulous children especially, in whom the evolution of heat is rarely energetic, the evil is one of great magnitude ; for the chilblains, colds,



and headaches more immediately complained of, are often its least important consequences.

The same principle leads to another obvious rule. When disease of any kind exists in the chest, exercise of the lungs in speaking, reading, and singing, and also in ordinary muscular exertion, ought either to be entirely refrained from, or strictly regulated by professional advice. When a joint is sore or inflamed, we know that motion impedes its recovery. When the eye is affected, we, for a similar reason shut out the light; and when the stomach is disordered, we have respect to its condition, and become more careful about diet. The lungs demand a treatment founded on the same general principle. If they are inflamed, they must be exercised as little as possible, otherwise mischief will ensue. Hence in a common cold of any severity, silence, which is the absence of direct pulmonary exercise, ought to be preserved, and will in truth be its own reward. In severe cases, and in acute inflammation of the chest, this rule is of the greatest importance.

It is common to meet with patients who cannot speak three words without exciting a fit of coughing, and who notwithstanding, cannot be persuaded that speaking retards their recovery. In like manner, in spitting of blood, and in the early stages of tubercular consumption, when the breathing cannot be excited without direct mischief, it is often difficult to convince the patient of the necessity of silence. He perhaps does not feel pain on attempting to speak, and says that "it merely raises a short tickling cough, which is nothing." But if he persists, dearly bought experience will teach him his error, and cause him regret.

*Influence of the Mind on Health.* The direct influence exercised by the mind and brain over all the bodily functions, and over the general health, is great. If the mind be active and decided, the muscles, receiving a strong stimulus, move with readiness and force. As the quality of the nervous influence depends on the condition of the brain, that which springs from a brain



of which all the parts are in sound and vigorous action, is the best. Consequently, our great aim ought to be to secure for every mental power, moral as well as intellectual, that equal and regular exercise from which alone the proper nervous stimulus can spring.

It is indeed interesting to observe the various efforts of the nervous influence, according to the faculties in predominant action at the time it is produced. If the higher feelings have the ascendancy, and the more selfish propensities be merely active enough to give force to the character, without setting the mind at war with itself, the nervous influence is the most grateful and efficient which can be imagined for sustaining the healthy co-operation of the whole body. This result follows, because the Creator evidently designed such a state of mind to be the best and happiest for man himself, and therefore took care to surround him with every motive to induce him to enter into it.

If, however, the lower feelings be in great activity, and filled with designs and emotions repulsive to the moral sentiments, so that the faculties are ranked in opposition to each other, or if the mind be oppressed with grief, anxiety, or remorse, the stimulus which it communicates is far from beneficial, being no longer in accordance with the conditions designed by the Creator. It is in such circumstances, accordingly, that bad health is so often seen to arise from this state of the mind, and that suffering is produced which no art can relieve till the primary cause has ceased to exist.

The same result follows the over-exercise of intellect and inactivity of the feelings. From the concentration of vital action in the brain, the stomach and other organs are unprovided with the requisite nervous stimulus, and become impaired in their functions; and hence the dyspeptic and hypochondriacal symptoms which so often renders life a burden to literary men.

Persons so situated, when advised to attend to diet, often answer that it is in vain, and that, while at some times nothing can be digested; at other times, perhaps



within a few hours or days, nothing comes amiss ; the power of digestion varying thus quickly, according to their mental condition. Whereas, when indigestion arises from a primary affection of the stomach, the least deviation in the way of indulgence proves injurious. In both instances, attention to diet is beneficial ; but in the one it is less rigidly important than in the other.

The influence of the brain on the digestive organs is so direct, that sickness and vomiting are among the earliest symptoms of many affections of the head, and of wounds and injuries of the brain ; while violent emotions, intense grief, sudden bad news, sometimes arrest at once the process of digestion, and produce squeamishness or loathing of food, although an instant before, the appetite was keen. Narcotics, the direct action of which is on the brain, have a similar effect on the stomach.

The influence of the mind and brain over the action of the heart and lungs is familiar to every one. The sighing, palpitation, and fainting, so often witnessed as consequences of emotions of the mind, are evidences which no body can resist. Death itself is not a rare result of such excitement in delicately organized persons. This law of our constitution, whereby the regulated activity of both intellect and feeling is made essential to sound bodily health, seems to us one of the most beautiful arrangements of an all-wise and beneficent Creator.

If we shun the society of our fellow creatures, and shrink from taking a share in the active duties of life, mental indolence and physical debility beset our path. But if, by engaging in the business of life, and taking an active interest in the advancement of society, we duly exercise our various powers of perception, thought and feeling, we promote the health of the whole corporeal system, invigorate the mind itself, and at the same time, experience the highest mental gratification of which a human being is susceptible—that of having



fulfilled the end and object of our being, in the active discharge of our duties to God, to our fellow-men, and to ourselves.

If we neglect our faculties, or deprive them of their objects, we weaken the organization, give rise to distressing diseases, and at the same time experience the bitterest feelings that can afflict human nature—ennui and melancholy. The harmony thus shown to exist between the moral and physical world, is but another example of the numerous inducements to that right conduct, and activity in pursuing which the Creator has evidently destined us to find terrestrial happiness. Dr. Comb remarks, at great length, in his work on physiology, on the different functions of the human system, and shows that good health cannot be enjoyed, except each function be duly exercised. We are considerably indebted to the works of this highly gifted gentleman, for our remarks on the Lungs and Skin.

*Diet.* It is the opinion of Dr. Buchan, that not a few of the diseases incident to the inhabitants of most countries, are owing to their mode of living. The vegetable production that is consumed, falls considerably short of the proportion they ought to bear to the animal part of our food. If we make a constant use of bread, and animal substances, it will excite an unusual thirst, and lead to an immoderate use of water and other drinks. Habits are generally obstinate things, especially those which relate to diet; we believe, however, that people have too much good sense not to listen to reason, and it is only necessary that they should be properly instructed; we believe many people have perished for the want of knowledge, and that proper means have not been used to give suitable instruction. Hurtful customs have been allowed to prevail, until they have become so deep rooted that it will not be an easy matter to eradicate them. Adults and older people have many prejudices to overcome; but children may be taught to use any kind of food, and what they use while young, they will generally love when they become



older ; if people would adopt a different mode of feeding their children, and permit them to eat such food only as was healthy or suitable for them, a total change would in time be effected, in the general mode of living.

There is probably no creature which eats such a variety of food, as man. Intended for an inhabitant of every climate, he devours the productions of them all ; and if they do not suit his palate, or agree with his stomach, he calls in the aid of cookery—an art peculiar to himself—by which many things that in a crude state would prove hurtful, or even poisonous, are rendered wholesome and salutary. The obvious division of food, is into animal and vegetable. To say that man was intended by nature for using either the one or the other alone, would be absurd. His structure and appetite prove that he was formed for both. Judgment however, is necessary in adjusting the due proportion of each, so as to avoid the inconveniences arising from an extreme in either hand. Though animal food is more nourishing than vegetable, it is not safe to live on that alone.

Experience has shown that a diet consisting solely of animal food, excites thirst and nausea, occasions putrescence in the stomach and bowels, and finally brings on violent gripings, pains, with cholera and dysentery. Animal food is less adapted to the sedentary than the laborious, and least of all to the studious, whose diet ought to consist chiefly of vegetable. Indulging in animal food renders man dull and unfit for the pursuits of science, especially when it is accompanied with the free use of strong liquors. The plethoric, or persons of a full habit, should eat sparingly of animal food. It yields far more blood than vegetables taken in the same quantity, and of course may induce inflammatory disorders. It acts as a stimulus to the whole system, by which means the circulation of the blood is accelerated. We are inclined to think that consumptions, so common among people, are in part owing to the great use of animal food. Though pulmonary consumption is not,



properly speaking, an inflammatory disease, yet it generally begins with symptoms of inflammation and is often accompanied with them through its whole progress. By the continued use of animal food, a putrid diathesis is induced in the system, which predisposes to a variety of disorders. We are fully convinced that many of those obstinate complaints for which we are at a loss to account, and find it still more difficult to cure, are the effects of a scorbutic taint lurking in the habit.

Improper diet affects the mind as well as the body. Though these and similar consequences may arise from the excess of animal diet, we are far from discouraging its use in moderation. In all cold countries it is certainly necessary; but the major part of the aliment ought, nevertheless, to consist of vegetable substances. There is a continued tendency in animal food, as well as in the human body itself, to putrefaction, which can only be counteracted by the free use of vegetables. With regard to the proportion of vegetable food, to that of animal, great nicety is by no means required. It must vary according to circumstances, as the heat of the weather, the warmth of the climate, and the like. The vegetable part, however, where nothing forbids, ought certainly to preponderate, and we think in the proportion at least of two to one. In the cure of disease, a proper regulation of the diet is not less important than the administration of appropriate remedies. In many cases a cure is impossible, unless a due attention be paid to the food and drinks taken by the patient. In fevers and all inflammatory complaints, the diet should be confined to the mildest diluents, taken in moderate quantities. In chronic diseases of the stomach, the food should consist of a moderate allowance of such articles as are nutritive, and readily digested.

*Sleep.* The proper quantity of sleep is beneficial. We believe, however, no species of indolence is more hurtful to the health, than the modern custom of lying in bed too long in the morning. This is the general practice in large towns. The inhabitants of cities sel-



dom rise before eight or nine o'clock ; but the morning is undoubtedly the best time for exercise, while the stomach is empty and the body refreshed with sleep. Besides, the morning air braces and strengthens the nerves, and in some measure answers the purpose of a cold bath. Let any one who has been accustomed to lie in bed till eight or nine o'clock, rise by six or seven, spend a couple of hours in walking, riding, or any active diversions without doors, and he will find his spirits cheerful and serene through the day, his appetite keen, and his body braced and strengthened. Custom soon renders early rising agreeable, and nothing contributes more to the preservation of health.

We have remarked, that sleep is beneficial ; it restores both the powers of the mind and body when exhausted by exercise, giving vigor to the one, and restoring the other to its accustomed alacrity. By means of sleep, the muscles are again rendered active and moveable, after they have become wearied, rigid, painful and trembling from hard labor and severe exercise. It moderates the quickness of the pulse, which usually increases at night, and brings it back to its morning standard. It seems also to assist digestion of aliment ; it diminishes both excretions and secretions, and renders the fluids thicker than otherwise they would be, particularly in a body endowed with much sensibility or mobility. Sleep, therefore, is not only useful, but absolutely indispensable, for the preservation of life and health, and it contributes most essentially to the alleviation, as well as to the total removal of disease.

The want of it is equally hurtful in many different ways to the nervous system. Its absence renders the external as well as internal organs of sense, and those of every kind of motion, unfit for the performance of their offices. Sleep, therefore, like diet, ought to be duly regulated. Too little sleep weakens the nerves, exhausts the spirits, and occasions disease ; and too much renders the mind dull, the body gross, and disposes to apoplexies, lethargies, and other complaints of



a similar character. A medium ought therefore to be observed ; but this is not easy to fix.

Children require more sleep than grown persons ; the laborious and the idle, and such as eat and drink freely, than those that live abstemiously. Besides, the real quantity of sleep cannot be measured by time ; as one person will be more refreshed by five or six hours sleep, than another by eight or ten. Children may always be allowed to take as much sleep as they please ; but for adults, six or seven hours is certainly sufficient, and no one ought to exceed eight. Those who lie in bed more than eight hours may slumber, but they can hardly be said to sleep ; such generally toss and dream away the first part of the night, sink to rest toward morning, and dose till noon.

The best way to make sleep sound and refreshing, is to rise betimes. The custom of lying in bed for nine or ten hours, not only makes the sleep less refreshing, but relaxes the solids, and greatly weakens the constitution. Nature points out night as the proper season for sleep ; nothing more certainly destroys the constitution than night-watching. It is a great pity that a practice so destructive to health should be so much in fashion. How quickly the want of rest in due season will blast the most blooming complexion, or ruin the best constitution, is evident from the ghastly countenances of those who, as the phrase is, turn day into night, and night into day. To make sleep refreshing, the following things are requisite : first, to take sufficient exercise in the open air ; avoid strong tea or coffee ; next, to eat a light supper ; and lastly, to lie down with a mind as cheerful and serene as possible.

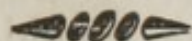
It is certain that too much exercise will prevent sleep, as well as too little. We seldom, however, hear the active and laborious complain of restless nights. It is the indolent and slothful who generally have those complaints. Is it any wonder that a bed of down should not be refreshing to a person who sits all day in an easy chair ? A great part of the pleasure of life consists in



alternate rest and motion ; but they who neglect the latter can never relish the former. The laborer enjoys more true luxury in plain food and sound sleep, than is to be found in sumptuous tables and downy pillows, where exercise is wanting. His rest is not disturbed by the effects of unseasonable luxury. He knows that temperance, moderate exercise, composure of mind, and external tranquility, are the best opiates. His slumbers are sound and refreshing. The waste of spirits on the preceding day is fully repaired. Every muscle, every fibre, every nerve, has regained its proper tone. He rises with cheerfulness and vigor to breathe the morning air, and to enter upon the duties of the day. In short, an attention to this simple point of going to bed early, and of rising betimes, will be found to supercede a variety of other precepts, and may be justly called the golden rule for the attainment of health and long life.



## PART IV.



### VEGETABLE MATERIA MEDICA.

That part of Medical Science which treats on Medicine, is termed *Materia Medica*, whether they are Mineral or Vegetable substances that are employed in the cure of disease. The remedies which are recommended in this work, are obtained entirely from the vegetable kingdom, and embrace a large number of those substances which are capable of making a sensitive impression on the human system, and are mostly found in our own country, and may be obtained and successfully used by almost every individual.

We shall give a description of some of the most important medical plants hitherto discovered ; together with the name, character, and quality of numerous other plants, with the form of disease they suit, which have been successfully used in the treatment of disease. This will enable every individual, in case of emergency, to obtain some one of those medical plants, which is necessary to cure the disease with which they may be afflicted, in case the common remedies are not at hand.

Those who gather medical plants should be very careful to gather those of the right kind, there being several species of the same class ; for this reason we give the Botanic as well as the English name of those plants which may be used for medical purposes ; and of those only which are devoid of poisonous or deleterious properties.

Herbs should be gathered when in blossom ; when dried in the open air, they should not be exposed to the dew or rain ; if the weather continues damp for



a long time, they may be dried by a gentle heat from a fire or stove, and should be immediately packed or pressed and kept dry. Leaves should be collected when they are fully grown or before they begin to turn, and may be dried and preserved in the same manner as the herbs. Flowers should always be collected in dry weather immediately after blossoming. Seeds should be gathered when fully ripe, separated from the chaff and deposited in a dry place.

The most convenient time for gathering barks is in the spring while the sap is rising. The bark of young trees is the best ; it should be carefully dried without being exposed to the damp atmosphere. Roots should also be collected in the Spring before the sap rises, or after it descends in Autumn ; they should be thoroughly cleansed or freed from dirt, and dried in the sun or by artificial heat ; if roots are very large, or juicy, they should be sliced or split before drying, and should be packed in draws or close boxes, or they will lose much of their strength.



## LOBELIA INFLATA, OR EMETIC HERB.

There are three kinds of *Lobelia* very common in this country, *Lobelia Inflata*, *Syphilitica*, and *Cardinalis*. *Lobelia Inflata*, however, is the only kind used for medicine. This plant grows from twelve to eighteen inches high; the root is white and fibrous, and sends up an erect stem, which is angular, hairy, and branched; if broken while green, it exudes a milky juice. Leaves alternate, tapering, hairy, and edged with small unequal teeth. Flowers thinly scattered along the branches, and of a paleish blue, succeeded by a small oblong roundish pod, which contain a large number of very minute brown seeds, which are oblong, resembling tobacco seeds; it is in blossom from July until Autumn, and resembles very much in taste tobacco, from which it took its common name. It is common in most parts of the United States, growing by the road side, neglected fields, but in greatest abundance in stubblefields, especially the next season after the crop is taken off. Its leading properties are emetic, and expectorant; it is a perfectly safe and effectual emetic, and may be given in all cases where emetics are needed; it not only cleanses the stomach, but exercises a beneficial influence over every part of the body.

## CAPSICUM.—THE PODS.

*Cayenne*. *Cayenne* is a plant that grows in Africa and South America. The pods or seed-vessels, reduced to a powder is known by the name of *Cayenne*; it possesses an exceeding pungent taste, and is one of the best stimulants in use. When taken into the stomach it produces a pleasant sensation of warmth in that organ which soon diffuses itself through the whole system. It is one of the most pure and powerful stimulants ever introduced into the practice of medicine.



Dr. Howard says, that cayenne is a pure and unfailing stimulant, acting upon the living machine in a most forcible and healthy manner in unison and harmony with the laws of nature and animal life. Cayenne made into a tea or tincture, is useful to bathe the bowels in dysentery, colic, rheumatic joints, inflammations, bruises and sprains, or any soreness of the limbs. A dose is from one fourth to a whole teaspoonful of the powder taken in warm water sweetened.

#### MYRICA CERIFERA.—THE ROOT.

*Bayberry* or *Wax Myrtle*, is a shrub that grows in every kind of soil, and rises from two to four feet high, and branched at the top, and is covered with a greyish bark ; the leaves are oblong, wedged shape, broadest at the outer end ; it bears a greyish berry, which grow in a cluster on the side of the branch, and is covered with a substance from which bayberry tallow is obtained. The bark of the root only, should be used for medicine ; it possesses powerful medical properties, and is the most valuable astringent in use, being astringent and tonic, and may be safely given in all diseases ; it produces a stimulating effect upon the mouth, and is an excellent article to remove canker and cleanse the system. There is no form of disease in which, if properly administered, but that it will have a beneficial effect. It is a valuable remedy in scarlet fever, sore throat, diarrhea, dysentery, bowel complaints, or any disease that is attended with canker. From half to a teaspoonful may be given at a dose in warm water sweetened to suit the taste.

#### NYMPHÆA ODORATA.—THE ROOT.

*White Pond Lilly*. It may be known by its large white flower of a delicious fragrancy, which closes at night, and opens again in the morning. It has a creeping fibrous root ; the leaves may be seen floating upon



the water, and are round or heart shaped, with a cleft opening at the base. The root of this plant is only used as a medicine ; it possesses a high degree of astringency, and is generally used in poultices, and washes, externally applied to tumors and offensive sores,

#### HAMAMELIS VIRGINICA.—THE LEAVES.

*Witch Hazle.* This is a common shrub, growing from six to ten feet high, trunk crooked and knotted, smooth greyish bark, diversified with ash spots, irregular branches at the top, leaves rather large, smooth, alternate, and roundish ; they should be gathered in August, before they begin to turn ; the leaves are the most valuable for medicine, and possess the astringent and tonic properties ; it is highly beneficial made into a tea for canker, bowel complaints, bleeding at the stomach and lungs.

#### RUEUS STRIGOSUS.—THE LEAVES.

*Red Raspberry.* Of this there is several species, but the leaves of the wild red raspberry are the only kind used for medicine ; it is moderately astringent, with a slightly bitter and aromatic taste ; an infusion is given to children for bowel complaint, sore mouth, and as a wash to cleanse old sores, &c. It grows in most parts of the United States, and is so common that it needs no description.

#### RHUS GLABRUM.—LEAVES AND BERRIES.

*Sumach.* The smooth or upland is the kind mostly used ; it may be found near fences, and on the side of stony hills. Their leaves are an astringent and tonic, and may be used with other articles where astringents are necessary ; the berries are diuretic and have a pleasant acid taste.



## STATICE LIMONIUM.—THE ROOT.

*Marsh Rosemary.* This plant is called by some, sea lavender, or sea thrift ; it grows in salt marshes along the whole extent of our sea coast. The root is the part used for medicine, and is one of the most powerful astringents we use ; it is not much used only as a gargle, excepting in ointments for external use.

## TRILLIUM PENDULUM.—THE ROOT.

*Beth Root.* Beth Root is most commonly found in damp rocky wood land ; it has a short fibrous root, stems smooth and erect, and from six to ten inches high, with three leaves in a whirl at the top, and one whitish terminal flower, situated beneath the leaves ; it possesses astringent tonic, and antiseptic properties, and is generally used in cases of hemorrhages, excessive menstrual discharges, &c.

## HYDRASTIS CANADENSIS.—THE ROOT.

*Golden Seal.* This plant is very rarely found in the New-England States ; small quantities, however, have been collected in different parts, but it grows most abundant in the Western States—Ohio, Indiana, Michigan, Kentucky—and is found in great quantities westward of the Alleghany mountains. Golden Seal is one of the most valuable tonics in use ; it may be used in all cases of debility and loss of appetite.

## HELONIAS DIOICIA.—THE ROOT.

*Unicorn.* This plant has a perennial root, and is known by the name of blazing star, false unicorn, and devil's bit. It has an irregular tapering root, somewhat fibrous, an inch and a half long, half an inch thick, very hard, end abrupt as though it had been broken off. The leaves are pale, smooth, evergreen, and spread



upon the ground in the form of a star, three or four inches long, narrow at the base, and tapering at the point ; the stem is from ten to fifteen inches high, and terminates in a drooping and graceful bunch of flowers, or tassel, of a dull white color : it blossoms in June. The root is the only part that possesses medical properties, and it is highly celebrated as a tonic ; it is beneficial in loss of appetite, or any derangement of the digestive organs.

#### CHELONE GLABRA.—THE HERB.

*Balmoney.* This plant is found in meadows and near the borders of streams, and is called bitter herb, turtle bloom, shell flower, snake head, the latter probably on account of the blossoms resembling a snake's head. It has a smooth, erect, four cornered stem, from two to four feet high ; leaves opposite, tapering, four or five inches long, edged with acute teeth, and are of a dark green color when fresh ; flowers white and sometimes tinged with red. Its most active properties are tonic and laxative ; it is useful in costiveness, loss of appetite, dyspepsia and general debility.

#### POPULUS TREMULOIDES.—INNER BARK.

*Poplar or American Aspen.* This tree is found in open lands, and in borders of woods ; it blossoms about the first of May ; the bark is very smooth, of a light brown color, intermixed with white spots ; the leaves are roundish, edged with irregular teeth, and supported by upright foot stalks ; the slightest breath of air puts them in motion, which gives it the name of quaking aspen. The large aspen or bitter poplar is also used in medicine ; the bark has a thick dark ross ; it grows in dry and wet lands, but is not as common as the American aspen ; it should be collected in the Spring while the sap is rising. Poplar bark is an agreeable bitter, and is used in most of the tonic preparations.



## CYPRIPEDIUM HUMILE.—THE ROOT.

*Lady's Slipper.* Of this plant there are four varieties, the purple, yellow, white, and grey or tall lady's slipper; the purple is most commonly used in medicine; this has received the name of dwarf umbil, American valerian, nervine, and Noah's ark. It grows in open woods, but is found most plenty among pines. The root is composed of a number of long, brownish colored, fibres, which grow horizontal from the centre; the leaves proceed directly from the root, and are never more than two in number; they grow opposite of each other, are about two inches wide, and four or five long, tapering, and of a paleish green, supplied with nerves, extending from base to point; the flowers are large, of a light pink or purple color, with veins of a darker hue, and deposited on the top of a naked stem, from eight to twelve inches high; the flower resembles somewhat a lady's slipper, or moccasin, from which it took its name, Dr. Thomson considers it to be one of the most valuable nervines and anti-spasmodics known. He says, "I have used it about fifty years, and have always found it to produce the most beneficial effects, in all cases of nervous diseases." This is known to most people by the name of nerve powder.

## SCUTELARIA LATERIFLORA.—THE HERB.

*Scullcap.* This plant grows in low lands of a rich soil, along streams which are overflowed with water in the spring, and are dry during the summer; it has an erect four-cornered stem, twelve or eighteen inches high, the branches opposite, but none reach above the main stork; the leaves are heart shaped at the base, opposite, pointed, and edged with irregular teeth; the flowers are of a light blue, always on the under side of the branch, and make their appearance about the first of July; the seed-vessels are of a light green color, and contain four seeds. Scullcap is a very prominent



nervine, and used as a tea, we think is superior to the lady's slipper. It is also a tonic and anti-spasmodic, and should be freely used in St. Vitus' dance, convulsions, locked jaw, hydrophobia, and all nervous affections.

PANAX QUINQUEFOLIUM.—THE ROOT.

*Genseng.* The American Genseng is scattered over all of the Northern and Western States; it grows principally in rich woodland. It is an aromatic, tonic, and nervine; given in a tea, it is strengthening to a weak stomach, promotes appetite, and will give tone and vigor to the nervous system.

APOCYNUM ANDROSEMIFOLIUM.—BARK OF THE ROOT.

*Bitter Root.* This plant flourishes in almost all parts of the United States, and is called wandering milk-weed, honey-blow, catch-fly; it grows in wetish lands, plains, mowing grounds, and is found along fences, and in borders of woods; it has a dark brown, creeping root, with thick bark, and sends up an erect stem, branched at the top, from one to three feet high; sides that are exposed to the sun, are often of a reddish cast, leaves opposite, oval, acute, smooth, green upon the upper surface, pale beneath, and about two inches long; white bell-shaped flowers, tinged or reddish within, and deposited in small clusters on the end of the branch, succeeded by a pod two or three inches long, about the size of a pipe-stem, always hanging down. Bitter root is in much estimation by some as a laxative and tonic when combined with other medicines.

BERBERIS VULGARIS.—BARK OF THE SHRUB.

*Barberry,* is a small shrub growing from three to six feet high; the stem and branches are armed with thorns pointing downwards; it is mainly distinguished



by clusters of oblong scarlet berries, which are obtained for family use. The inner bark of the stork and root, is the part generally used for medicine ; its leading properties are a tonic and laxative ; combined with other articles, it is given in jaundice, bilious affections, &c. ; it is also used as a restorative medicine in the spring, in cases of languor and debility ; it improves the appetite and removes the yellow tinge from the eyes and skin, and produces a favorable change throughout the system.

#### JUGLANS CINEREA.—INNER BARK.

*Butternut.* This tree generally grows in open woodland or cleared fields, and attains to a considerable height ; it yields a well known fruit, which is much estimated for the pleasant taste of its inner substance or meats. The bark is the part used for medicine ; its leading properties are a cathartic ; it is generally prepared in the form of extracts and made into pills, and cordials or syrups ; these are administered as circumstances may require, as a laxative or cathartic.

#### LEPTANDRA VIRGINICA.—THE ROOT.

*Black Root.* This plant grows near the banks of streams, or hedges, and in open dry situations ; the root is of a dark color, irregular, and very fibrous ; stem round, and from two to four feet high, leaves in whorls, and five in number, the stem terminates with a spike of white flowers, which blossom in August. This root is exceedingly bitter, and operates on the bowels as a mild purge ; it is also an antiseptic and tonic. A tea spoonful of the powder may be taken in a teacup of boiling water sweetened to suit the taste, and repeat if necessary.



## PODOPHYLLUM PELTATUM.—THE ROOT.

*Mandrake*, also called *Mayapple*. It grows in shady, and often in moist situations, of a deep rich soil ; it has a creeping root about half an inch thick. The stem is smooth and round, and divided at the top into two branches, each supporting a large leaf ; a large white flower grows from the fork of the stem ; it is succeeded by an apple or fruit of an acid taste, which considerably resembles a lemon in shape. The root of this plant is an active purge and should be used with a suitable degree of caution, but the fruit is a laxative ; half a teaspoonful of the powder may be taken at a dose, and repeat if necessary.

## MYRICA GALE.—THE BURRS.

*Meadow Fern*, also called *Sweet Gale* or *Bog Myrtle*. It is generally found around ponds, wet meadows, and along the edges of streams ; the burrs and leaves are generally used ; they have a fragrant odor, and an aromatic bitter taste ; it is generally used in the form of ointments for external applications.

## POPULUS CANDICANS.—THE BUDS.

*Balm of Gilead*. It is often cultivated as an ornamental tree ; the buds are only used as medicine ; their properties consist in a balsamic substance which is extracted by water or alcohol ; it will strengthen weak stomachs, promote digestion, &c.

## ULMUS FULVA.—INNER BARK.

*Slipperry Elm* is an excellent mucilage, and is extensively used as an article of medicine ; it is highly beneficial in diarrhea, dysentary, and bowel complaints ; it is an important addition to enemas for piles ; it produces a soothing effect through the whole system ; it is also a prominent ingredient in poultices.



## PINUS CANADENSIS.—INNER BARK AND LEAVES.

*Hemlock.* This is a well known forest tree ; the inner bark was used by Dr. Thomson as an astringent, or anticanker medicine ; but we think it too powerfully astringent to use alone, and therefore we recommend its use only in combination with other articles.

## PRUNUS VIRGINIANA.—INNER BARK.

*Wild Cherry.* The inner bark has a spicy, bitter taste ; it is an agreeable tonic, and is considerably used in dyspepsia, jaundice, diarrhea, and worms ; and is externally applied for a wash to cleanse offensive sores.

## ZANTHOXYLUM FRAXINEUM.—THE BARK.

*Prickly Ash.* This shrub is occasionally met with in the Middle, but grows most abundantly in the Southern and Western States, and is scattered along hedges, and grows from six to eighteen feet high, with alternate branches, which are covered with sharp scattered prickles. The bark and berries are considerably used in medicine ; the berries are the most valuable ; the leading properties are a stimulant and tonic. Dr. Mattson gives it as an approved remedy in ague and fever, rheumatism, pain in the stomach and bowels, dyspepsia, drowsiness, cold hands and feet, and all affections depending on a sluggish circulation ; half a teaspoonful of the powder may be taken at a dose.

## JUNIPERUS.—THE BERRIES.

*Juniper,* is a small evergreen shrub, varying from five to fifteen feet high, and resembles somewhat the common savin, but it may be distinguished from it by a berry which it bears, of a dark green, or purple color, about the size of a pea ; the berries are a prominent diuretic, and are used in dropsical complaints, and diseases of the urinary passages ; they are generally used in the form of a tea.



## PINUS BALSAMEA.—THE BALSAM.

*Fir Balsam* is obtained from a small blister, which forms on the body of the fir tree ; and is estimated for its healing qualities, and in the form of tincture it is useful in coughs, weak stomachs, &c. ; and externally applied to wounds, scalds, burns, &c. it is highly useful.

## INULA HELENIUM.—THE ROOT.

*Elecampane* grows from two to four feet high, and is generally known by its long, large leaf, and its round yellow flower, which resembles that of the sunflower in appearance; but not as large ; and is generally found about houses, or by the road side ; it is much valued for its expectorant properties, and is used in coughs, consumption and asthma ; half a teaspoonful of the powder may be taken at a dose, in molasses or honey two or three times a day ; more generally, however, the root is combined with other articles.

## ICTODES FÆTIDA.—THE ROOT.

*Skunk Cabbage.* This plant is generally known ; when broken it has a peculiar smell, and is found in swamps and wet meadows ; the root of this plant may be used in combination with other medicines, where expectorants are needed.

## ARUM TRIPHYLLUM.—THE ROOT.

*Wake Robin.* This plant is also called *Wild* or *Indian Turnip* ; the root is similar in shape to that of an onion, and has a very pungent fiery taste ; it is considered a valuable ingredient added to cough mixtures,

## SANGUINARIA CANADENSIS.—THE ROOT.

*Blood Root* is an emetic, and expectorant ; as an emetic we think it unsafe ; and do not use it as an expectorant unless combined with other articles.



## ARALIA NUDICAULIS.—THE ROOT.

*Sarsparilla* is generally found in woodlands and thickets ; it has a balsamic, fragrant, and warm aromatic sweetish taste ; it is a popular remedy in scrofula, rheumatism, syphilis, diseases of the skin, and mercurial salivations ; it is generally used in the form of syrups.

## GEUM RIVALE.—THE ROOT.

*Evan Root.* Purple Evan, or chocolate root, grows in swamps and wet meadows ; the root of this plant is an astringent and tonic. It is said by Dr. Howard to be useful in dyspepsia, and in bleeding at the lungs, diarrhea, colic, and sore throat. It is also good to restore feeble and shattered constitutions. The root may be boiled in milk or water, and sweetened to make it palatable. A wine glass of it may be taken several times a day, or a teaspoonful of the powder, mixed with honey or molasses, taken as above.

## ARCTIUM LAPPA.—THE ROOT AND LEAVES.

*Burdock.* This root may be employed in diseases of the kidneys, and obstructed urine ; a decoction may be made, and a half pint of it taken in the course of a day. The bruised leaves are externally applied to sprains and bruises, ague in the face, and is used for other external applications.

## RUMEX CRISPUS.—THE ROOT,

*Yellow Dock.*—Also called *sour* or *curled leaf Dock* : the root is a cathartic ; a strong decoction of it has been employed in cases of bilious colic, which proved highly beneficial, but is most generally used in ointments for external applications.



## ARISTOLOCHIA SERPENTARIA.—THE ROOT.

*Virginia Snakeroot.* Of this plant there are three kinds ; the Virginia may be distinguished by the broad heart shaped leaf ; it is usually found in dry, shady places ; it is esteemed in typhus fever, being a diaphoretic, tonic, antiseptic, and stimulant ; it is also used in pleurisy, rheumatism, remittant and other fevers,

## ASCLEPIAS TUBEROSA.—THE ROOT.

*White Root*, also called *Pleurisy root*, is generally known, and highly estimated for the cure of pleurisy, all cases of difficulty of breathing, or shortness of breath, and all diseases of the lungs ; in every affection of this kind, says Dr. Howard, it may be regarded as one of the most valuable of the milder articles of the materia medica, and is considerably used in various compounds.

## ARALIA RACEMOSA.—THE ROOT.

*Spikenard.* This is generally raised in gardens ; the root and berries are the parts used as a medicine, and are popular remedies for coughs, female difficulties, and is a valuable tonic.

## EPIPHEGUS VIRGINIANUS.

*Beech Drops.* This singular plant is found growing under beech trees ; the root is a little knot or mat with short, crooked fibres ; stem eight or ten inches high, branched, beset with buds or scales instead of leaves ; this plant is an astringent, and has a bitterish, nauseous taste, and is a useful canker medicine, for sore mouth, dysentery, &c.

## CELASTRUS SCANDENS.—THE BARK OF THE ROOT.

*Bitter Sweet.* The bark of the root is the part used ; it has a sweetish and nauseous taste ; it is sometimes



used in diseases of the skin, and impurities of the blood ; but we think it not of much value, only in ointments for external applications.

RUBUS VILLOSUS.—THE ROOT.

*High Blackberry.* This article is generally known, and is a powerful astringent, and should be used with care ; it is a valuable ingredient in dysentery cordials, or syrups ; in severe cases a tea may be made of it, and half a teacupful given to an adult, and a table spoonful to a child at a dose, two or three times a day.

APOCYNUM CANNABINUM.—THE ROOT.

*Indian Hemp.* The root of this plant is a diuretic, and diaphoretic, and is useful in dropsical complaints ; a decoction of it may be taken in the quantity of two table spoonfuls, three or four times a day, and oftener if necessary.

CHIMAPHILA UMBELLATA.—THE HERB.

*Pipsisewa,* is a small evergreen, and is generally known by the name of *Princes' Pine* ; it is a valuable diuretic, and may be given in all diseases of the urinary organs, scrofula, dropsy, and nervous debility.

GALIUM APARINE.—THE HERB.

*Cleavers.* This plant has a square, slender, weak stem, two or three feet high, having many joints, branched, and thickly set with sharp prickles ; from each joint grows eight small pointed leaves ; flowers small and white, and grows in damp ground among bushes ; it is a valuable diuretic ; an infusion of it may be drank in gravel complaints, and in all cases of obstructed urine.



## MITCHELLA REPENS.—THE HERB.

*One Berry*, or *Partridgeberry*, is a small evergreen vine, growing usually in beds or mats, covering the ground ; it is found in shades, and is quite common under the hemlock ; the vine has a small roundish leaf, and bears a small red berry. The leaves and berries are a diuretic, and may be freely used where diuretic medicines are necessary.

## COPTIS TRIFOLIA.—THE ROOT.

*Gold Thread*, is found in swamps, and low marshy woodlands, and is generally known by its long yellow threadlike root, which is a bitter tonic ; it is a popular remedy in sore mouth and canker ; half a teacupful of the decoction may be taken two or three times a day.

## MARRUBIUM VULGARE.—THE HERB.

*Hoarhound*. This plant grows along road sides, and around houses ; it has a strong smell, and a bitter taste ; it is valuable in removing obstructions, and is also used in coughs, asthma, &c. and in large doses is a laxative.

## EUPATORIUM PERFOLIATUM.—THE HERB.

*Boneset* or *Thoroughwort*. This is a very common plant, and inhabits meadows and low moist grounds ; it has a very disagreeable, bitter taste ; it is an emetic, tonic, expectorant and stimulant ; an infusion of it in small doses will produce perspiration ; if repeated it will operate as an emetic ; it is an excellent article in colds.

## ERIGERON CANADENSE.—THE HERB.

*Fleabane*. This plant is generally found in pastures and neglected fields, and is commonly called colts-tail ; it has a hairy, branched stem, from one to four feet



high, thickly set with long pointed leaves ; it has a warm pungent taste, with bitterness and astringency ; its properties are said to be stimulant, tonic and diuretic. Dr. Mattson gives it as a sovereign remedy in dysentery ; a teacupful of the tea may be given every hour or two until a cure is effected.

SPIRAEA TOMENTOSA.—LEAVES AND FLOWERS.

*Hard Hack*, is generally found in moist ground ; the leaves and flowers are a bitter astringent ; an infusion made of it is useful in diarrhea, bowel complaints, &c.

HEDEOMA PULEGIOIDES.—THE HERB.

*Pennyroyal*. This is an annual plant, and is too well known to need any description, and is common throughout the United States : it is a warming stimulant, and diaphoretic, is much used, and will promote perspiration, and may be freely drank during a course of medicine.

MENTHA PIPERITA.—THE HERB.

*Peppermint*. This plant has a pleasant odor, and a warm, pungent, aromatic taste, with a sensation of coolness ; an infusion promotes perspiration, and may be employed in flatulency, to relieve hysterics, pain in the head and bowels, and to check nausea or vomiting.

MENTHA VIRDIS—THE HERB.

*Spearmint*, grows in wet lands ; it has a warm, pungent, bitter taste, and a strong aromatic smell ; it is a stimulant and tonic, and is useful to remove sickness at the stomach, and to check vomiting.



## GAULTHERIA PROCUMBENS.—THE LEAVES.

*Wintergreen.* This is a beautiful little evergreen, which is found on hills and mountains, and beneath the shade of the pine tree ; it may be distinguished by its warm fragrant taste, resembling that of black birch ; it is a stimulant and diuretic, and employed with many other articles, in diseases of the urinary organs.

## CROCUS OFFICINALIS.—THE FLOWERS.

*Saffron* is generally raised in gardens, and is well known by most people ; it is highly beneficial in treatment of children ; a tea of it may be given in scarlet fever, measles, red gum, and many other diseases to which children are subject.

*Sassafras* is a stimulant, and antiseptic ; it may be used as an ingredient in cordials, syrups, &c.

*Cinnamon*, is a stimulant, tonic, carminative, and stomachic ; it is usually combined with bitters, composition powders, &c.

*Cloves* have a hot aromatic taste, and strong fragrant odor, and are used in flavoring medicines.

*Ginger* has an agreeable aromatic taste, and is a very good substitute for cayenne as a stimulant ; it is used in powders, beer, syrups, &c.

*Summer Savory* has a sharp aromatic and pungent taste ; an infusion of it will warm and invigorate the system, and promote perspiration ; if taken at bed time it will frequently arrest a sudden cold.

*Sage* is a garden plant, having a strong fragrant odor, and a warm, bitter, aromatic, and somewhat astringent taste ; used in the form of a tea, it stimulates and eases the arterial and nervous excitements, relieves pain in the head, and quiets the mental faculties.

*Mayweed* is a disagreeable bitter tonic, sudorific, and anodyne ; it may be given in colds, rheumatism, dropsy, and hysterics ; taken warm, in large doses, will produce perspiration.



*Chamomile Flowers* have a bitter, nauseous taste ; it possesses in a high degree, tonic properties, and is useful to strengthen and invigorate the system, increase the appetite, remove flatulency, and acidity, arising from dyspepsia.

*Solomon Seal.* The root of this plant is a mild restorative, useful in female weaknesses ; it is also recommended for consumption and general debility.

*Nettle.* This root is useful in gravel, inflammation of the kidneys, pleurisy, spitting of blood, and in all cases of hemorrhage.

*Smartweed* is very common ; it is found by the roadside, and about houses, and is very valuable to prevent or check mortification ; also in bowel complaint, but is most generally used in the form of poultices, or washes for external applications to swelled joints, and to allay inflammation, &c.

*Tansy*, double, made in the form of a tea is useful in female complaints, worms, colic, &c.

*Wormwood* is a very bitter tonic, and may be given to children that are troubled with worms, or indigestion, and is a useful article applied to bruises and sprains.

*Jerusalem Oak*, or *Worm Seed*, is an excellent vermifuge medicine, and is extensively used among children for worms, in the form of powder, or in a decoction, which should be made pleasant with honey or molasses.

*Dandelion* is a diuretic, tonic, aperient, and has a direct action upon the liver and kidneys, exciting them when languid, to action ; it is usually given in the form of extract, decoction or syrup.

*Indian Posey* has a bitter aromatic taste ; an infusion of it may be freely used which will promote perspiration ; it is useful in colds, fevers, and influenza. The leaves and blossoms may be externally applied in cases of quinsy or sore throat,



## PART V.



### VEGETABLE COMPOUNDS.

#### COMPOSITION.

Take of Bayberry 2 pounds, pleurisy root 4 ounces, hemlock 2 ounces, ginger one pound, cloves 2 ounces, nerve powder 1 ounce, cinnamon 1 ounce, cayenne 2 ounces, pulverized fine, well mixed and sift.

Those powders operate in harmony with the laws of nature, and stimulate the human system to a healthy action, and may therefore be safely employed in all stages of disease to which men, women, and children are subject; it is a very useful and convenient family medicine.

It acts as an alterative, and promotes perspiration equalizing circulation, and removes obstructions, such as febrile attacks, colds, coughs, hoarseness, sore throat, influenza, croup, colic, small pox, scarlet fever, mumps and measles; this disease is often cured with a free use of Composition. Dose for an adult, in severe attacks, a tea-spoonful of the powder, two tea-spoonfuls of sugar, stir them together, and add a teacup of boiling water; when sufficiently cool, the tea only should be drank, and the patient should be in bed with a heated stone at the feet. For children the dose should be moderated according to the age. If Composition is to be drank during the day, and the individual much exposed to open air, it should be taken moderately warm, in order to prevent a profuse perspiration, which is liable to be suddenly checked, and would thereby injure the person; a little milk added to this, makes it a very pleasant, and a good beverage for children.



## DIAPHORETIC POWDER.

Take of white or pleurisy root, nerve powder, and bayberry, each one pound, golden seal half a pound, cayenne quarter of a pound, and mix thoroughly together. This powder is beneficial in dyspepsia, loss of appetite, pain or weakness of the stomach, side, and bowels, indigestion, headache, flatulency or wind. Half a tea-spoonful of the powder may be taken in half a tea cup of warm water, sweetened to suit the taste, two or three times a day.

## EMETIC POWDER.

Take of lobelia seed a desirable quantity, and pulverize fine in an iron mortar ; take of the leaves and pods, pulverize them and sift, and add half as much of the herb as there is of the seed, and mix them. This powder should be put into vials or jars, and stopped tight, for the air impairs the strength.

## WORM POWDER.

Take of Jerusalem oak, bitter root, each one ounce, poplar, golden seal, balmony and wormwood, each half an ounce, pulverized fine and mixed. This preparation can be taken with perfect safety by young or old.

Dose—a teaspoonful mixed with honey or molasses, once or twice a day as circumstances require.

## SPICE BITTERS.

Take of unicorn, golden seal, bayberry, nerve powder, prickly ash, ginger, bitter root, barberry, balmony, and cinnamon, each four ounces, poplar one pound, cloves and cayenne each two ounces, sugar four pounds, all pulverized fine, well mixed and sift.

These bitters will warm and purify the blood, correct the bile, restores the digestive powers, and creates an appetite. They will relieve pains in the head, stomach



and bowels, coldness of the hands and feet, strengthen weak stomachs, &c. May be freely used both as a restorative, and to prevent disease.

Dose—a teaspoonful in half a gill of warm water, sweetened, to be drank quite warm three times a day, before eating.

#### WINE BITTERS.

Take of poplar three pounds, golden seal, barberry, balmony, each one pound, unicorn, nerve powder, prickly ash, each half a pound, bitter root, cayenne, each four ounces, pulverized fine, mix and sift.

DIRECTIONS.—Take one ounce of the above powder, put it into a pint of boiling water, with four ounces of loaf sugar ; when sufficiently cool, put the whole into a bottle and add one quart of Madeira wine.

Dose—from half to a wine glassful, three times a day before eating.

This tonic is beneficial in dyspepsia, loss of appetite, general debility, liver affection, jaundice, weak stomach, or any derangement of the digestive organs ; it is also beneficial to persons recovering from sickness.

#### FEMALE POWDERS.

Take of bayberry, unicorn, poplar, golden seal, nerve powder, prickly ash, each one pound, gum myrrh, cinnamon, cloves, each half a pound, cayenne four ounces, sugar four pounds, pulverized fine, mix and sift.

This preparation is confidently recommended as an excellent remedy for female weaknesses, flour albus, and irregular menstrual discharges, low or debilitated state of the system.

Dose—a teaspoonful in a tea cup of warm water sweetened with loaf sugar, three or four times a day ; in obstinate cases, the vegetable composition should be taken at the same time.



## COUGH POWDER.

Take of elecampane, skunk cabbage, wake robin, nerve powder, each two ounces, hoarhound, boneset, lobelia leaves, each one ounce, elm, blood root, cayenne, each half an ounce, all pulverized fine, mix and sift.

Dose—a teaspoonful mixed with molasses or honey, to be taken when there is an inclination to cough.

## LIQUID COMPOUNDS.

## RHEUMATIC DROPS.

Take fourth proof brandy, three gallons, myrrh, two pounds, bayberry half a pound, cayenne four ounces. Pulverize the articles and put them into some convenient vessel ; let them stand for a week or ten days, and stir or shake them occasionally ; draw the liquid off and put it up for use.

Dose—a teaspoonful mixed in a tea cup of warm water, sweetened, is beneficial in colic, pain in the stomach, cramp, convulsions, sprains, rheumatism, inflammation, mortification, hysterics, delirium tremens, and all violent attacks of disease.

## DYSENTERY CORDIAL.

Take of bayberry, wild cherry bark, poplar, hardhack, high brier root, and scullcap, each four ounces, myrrh and cranesbill, each two ounces. Put the above ingredients into a copper or brass kettle, and add three gallons of water ; boil gently for two and a half hours ; strain through a coarse cloth, and add six or eight pounds of loaf sugar to the liquid ; boil again till the scum ceases to rise ; remove it from the fire, and stir in half a pound bruised peach meats, cinnamon and cloves, each two ounces. When sufficiently cool, add one gallon brandy, and half a pint rheumatic drops, and bottle for use.



It is good for bowel complaints, dysentery, relax, cholera morbus, weakness of the stomach or bowels, and the summer complaint in children.

Dose—from a tea to a table spoonful for children, and repeat according to the urgency of the case. For adults, from a table spoonful to a wine glass and repeat as the case requires.

### COUGH BALSAM.

Take of hoarhound, spikenard, elecampane, comfrey, each two ounces, liquorice, skunk cabbage, each three ounces, wake robin, scull cap, lobelia leaves, each one ounce, and reduce the articles to a coarse powder; boil in three gallons of water in a convenient vessel, one and a half hours; strain and have six quarts of liquid; then add four pounds of sugar, one quart of honey, and simmer until the scum ceases to rise. When cool add two quarts of brandy.

Dose—from a tea to a table spoonful three or four times a day, according to age and circumstances, or oftener if the cough is severe.

This vegetable preparation is composed wholly of those articles which are known to be good for all diseases of the lungs. It allays irritation, and causes an easy expectoration. It has an admirable effect in coughs, asthma, whooping cough, tightness of the breast and difficulty of breathing. It may be taken at all times, by old and young with perfect safety.

### MOTHERS' CORDIAL.

Take a small quantity of catnip, fennel seed, liquorice stick, and add a pint of water; boil to a half pint and strain off the liquid; add to it a tea cup of honey, while hot, and stir thoroughly together; let it stand until about blood warm, then add half a pint tincture of scull cap, and half a tea cup of tincture of lobelia. This cordial is an excellent article for children, and



should be used instead of elixer or paragoric. It may be freely given to children that are irritable, or restless.

Dose—from one to four teaspoonfuls, according to age and circumstances.

#### SARSPARILLA SYRUP.

Take sarsparilla root two pounds, princes' pine, and mezeron bark, each one pound, bayberry and poplar, each half a pound, bitter root four ounces. Boil them in six gallons of water until the strength is extracted; strain, and sweeten with molasses to make it pleasant, and add spirits enough to preseve it. This syrup is highly beneficial in the treatment of eruptive diseases, erysipelas, scrofula, salt rheum, and in removing the injurious effects of calomel from the system, and all impurities of the blood. It will strengthen weak stomachs, and regulate the bowels. If people would make use of it as a drink, instead of beers, soda-waters, and the like injurious things, it would be much better for their health.

#### EYE-WATER.

Take gold thread and raspberry leaves, each a handful; add half the quantity of emetic herb, and a small quantity of bayberry root. Steep the above ingredients in a pint of water, until the strength is extracted. strain and add one gill of rum. This is used as a wash for the eyes when inflamed or otherwise affected.

#### ANTISPASMODIC TINCTURE.

Take of pulverized lobelia seed two ounces, cayenne, nerve powder, each one ounce, brandy one quart; put the whole in a close stopped vessel, and infuse for a week or ten days; shake together occasionally; the liquid only should be used.

This preparation is an active and powerful emetic.



It is used in violent or critical cases of disease, such as locked jaw, cramp, convulsions, fits, epilepsy, delirium tremens, hydrophobia, hysterical attacks, poisoning, and severe attacks of croup. Drowned persons have recovered by its use, even when other remedies have failed ; it travels the system with wonderful rapidity, and rarely fails to restore the patient.

Dose—from a tea to a table spoonful, or more, according to the nature of the disease ; in convulsions, fits, locked jaw, it may be given in large doses.

#### TINCTURE OF LOBELIA.

Take one pound of Lobelia herb, reduced to a coarse powder ; add one quart of spirit, and a pint of water ; infuse for a week or ten days, and strain ; it is then ready for use. This preparation is a very convenient one for children ; it is frequently given as an emetic.

Dose—for a child, a teaspoonful ; for an adult a table spoonful given in a tea of composition or pennyroyal.

#### TINCTURE OF SCULLCAP.

Pulverize two ounces of scullcap, and add a pint of spirit ; infuse for eight or ten days, and strain.

It is beneficial in all nervous affections, such as St. Vitus dance, convulsions, hydrophobia, locked jaw.

Dose—from two to three teaspoonsful, more or less, as the urgency of the case may require.

#### TINCTURE OF CAYENNE.

Take of alcohol one pint, cayenne two ounces, infuse for eight or ten days and strain.

This preparation is a valuable external application for rheumatic joints, bruises, or insensibility.



## TINCTURE OF MYRRH.

Take of alcohol a pint, gum myrrh pulverized, one ounce ; infuse for fifteen or twenty days, strain, and it is fit for use. Add to it an equal quantity of water, and it may be used as a wash for sore mouth, spongy gums, and ulcerated throat. It is also applied to fresh wounds, and offensive ulcers.

## ESSENCES.

These are generally prepared by adding the essential oils to alcohol. The preparations generally, are one ounce of the oil to a pint of alcohol. Those mostly used, are peppermint, spearmint, pennyroyal and wintergreen.

## PILLS, LINIMENTS AND SALVES.

## STOMACH PILLS.

Take of scullcap one ounce, lobelia seed pulverized, three ounces, cayenne half an ounce. Mix the ingredients in a mucilage of elm, or buckhorn brake, and form into pills. These pills may be employed with advantage in asthma, difficulty of breathing, consumption, indigestion, and pain in the stomach or head.

Dose.—One may be taken before each meal during the day.

## SUMACH PILLS.

Take fir balsam and sumach gum, equal parts, and loaf sugar sufficient to form them into pills. These pills are beneficial in those complaints which females are subject to.

Dose—take one or two at a time as circumstances may require.



## VEGETABLE PILLS.

Take gamboge, extract of butternut, and mandrake, each four ounces, black root and blood root, each two ounces, lobelia seed one ounce, cayenne half an ounce, finely pulverized, sifted, and well mixed, boiled molasses one gill. After the molasses is sufficiently boiled, add the butternut, and dissolve them together ; while warm add the powders and mix. Form into pills about the size of a pea, and roll them in cinnamon.

Dose—from four to six in ordinary cases.

## STIMULATING LINIMENT.

Take pure white soap six ounces, camphor two ounces, oil hemlock one ounce, tincture cayenne four ounces, alcohol one quart. Infuse in a closely stopped bottle a week or ten days, shaking it well together, two or three times a day.

## PILE OINTMENT.

Take of marshrosemary root and nut galls, each one and a half ounces, lard eight ounces, mix and simmer well together.

## MEADOW FERN OINTMENT.

Take of meadow fern burrs and balm of Gilead buds, equal parts, and moisten them with water, and simmer in lard, until the strength is extracted ; then strain and put into some convenient vessel for use.

## HEALING SALVE.

Take of white pine turpentine, fresh butter, and beeswax, each three ounces, fir balsam one ounce, melt and mix well together, then strain and cool for use. This salve is applied to burns and sores, after they have been cleansed by poultices.



## COMMON SALVE.

Take of beeswax, mutton tallow, and Venice turpentine, equal parts, a small portion of honey, and the yolk of an egg may be added, and melt them together. This salve should be applied to fresh wounds, bad cuts, &c. It will exclude the air and favor the healing process.

## STRENGTHENING PLASTER.

Take four ounces white rosin, hemlock gum, burgundy pitch, beeswax and fresh lard, each one ounce ; melt them together, and pour them into a vessel of cold water, and work them with the hand as a shoemaker works his wax. It should be spread on soft leather, and may be applied to a weak back or any other part of the body.

## CATARRH SNUFF.

Blood root, bayberry, bitter root, sassafras, and cinnamon, each one ounce. Pulverize fine, sift, and mix well. This snuff may be used in catarrh, headache, &c.

## CANCER PLASTER.

The most approved cancer plaster is the extract of clover. This is obtained by the usual way of obtaining extracts ; take a desirable quantity of red clover heads, put them in a kettle, and add water enough to cover them ; boil over a gentle fire until their strength is extracted, and strain the liquid through a coarse cloth ; press hard enough to get out all the liquor : put this in some suitable vessel, and place it in a kettle of water, and boil it over a slow fire until it becomes as thick as tar. This may be spread on soft leather or stout linen cloth. This plaster is applied to cancers and indolent sores.



## LIST OF TEAS.

## PENNYROYAL TEA.

Take of pennyroyal a suitable quantity, boiling water a pint; steep in a close covered vessel until the strength is extracted. It should not be boiled, for it injures the medical properties of the tea. This tea is given during a course of medicine.

## BAYBERRY TEA.

Take of bayberry two teaspoonsful, nerve powder one teaspoonful, cayenne one fourth of a teaspoonful; steep in half a pint of boiling water, and add sugar to suit the taste. This tea is active and may be given in violent or critical cases of disease.

## DIAPHORETIC TEA.

Take of bayberry and scullcap each one teaspoonful, white root, cayenne, green lobelia, each half a teaspoonful, and steep in a pint of boiling water. This tea is used in sudden colds, croup, cramp, colic, nervous affections, and pain caused by wind. It is beneficial between courses of medicines; also in scarlet and typhus fevers.

## NERVINE TEA.

Take of scullcap or nerve powder and motherwort each one teaspoonful, powdered, water half a pint, and steep in a covered vessel. This tea is a valuable remedy in all nervous affections; it should be kept warm, and employed as a drink, sweetened to suit the taste.

## CANKER TEA.

Take of raspberry and witch hazle leaves, equal parts, bayberry two teaspoonsful, hemlock one teaspoonful,



water half a pint, and steep until the strength is extracted. This tea is beneficial in all cases of canker, and should be freely used as a drink.

#### DIURETIC TEA.

Take of poplar, juniper berries, cleavers, princes' pine, each a small handful, boiling water a pint ; steep and sweeten to suit the taste. This tea may be used in cases of strangury, gravel, or any disease of the urinary organs.

### POULTICES.

#### COMMON POULTICE.

Take of fine elm two parts, indian meal and ginger each one part ; mix with hot water to the proper consistence to form a poultice. This is applied to biles, and to cleanse old sores and tumors, allays inflammation, &c.

#### POULTICE FOR SWELLINGS.

Take of fine elm and white pond lilly, each two parts, lobelia, bayberry, wake robin and ginger, each one part. Mix in hot water to the proper consistence for a poultice, and apply while warm. For white swelling, whitlows, felons, carbuncles, and all painful tumors and swellings. This is highly beneficial.

### ENEMAS, OR INJECTIONS.

#### COMMON ENEMAS.

Take of pennyroyal or any herb tea, two teacupful, nerve powder, fine elm, each one teaspoonful, rheumatic drops half a teaspoonful. This may be administered at any time to produce an evacuation of the bowels.



### ENEMAS FOR PILES.

This enema may be made by steeping a small quantity of witch hazle, red raspberry, scullcap, and sumach leaves, in a suitable quantity of water, to which may be added a small quantity of bayberry, and a teaspoonful of fine elm. If there is much soreness of the parts, the liquid should be strained, as the sediment frequently occasions pain.

### STIMULATING ENEMAS.

This enema may be made of the following articles ; one fourth of a teaspoonful of composition, half a teaspoonful of nerve powder, rheumatic drops and fine elm, to which may be added two teacupsfull of warm water, and administered about blood warm.

## PROPERTIES OF PLANTS.

In order that the reader may readily find the various plants possessing the same properties, we give the most prominent ones under the head of Emetics, Anti-Spasmotics, Stimulants, Antisepsitics, Expectorants, Tonics, Astringents, Laxatives, Demulcents, Nervines, Diuretics, Vermifuges, Carminatives, Cathartics, Aromatics, and Antiacids. This arrangement will enable the reader to become acquainted with the various plants which are used for a specific purpose, without being to the trouble of looking over the whole list of medical plants. If he wishes to know what the prominent Emetics, Stimulants, Nervines, or any other class of medicines are, he will only have to turn to the head of that class of remedies.

*Emetics.* These are medicines which produce vomiting, and free the stomach from its morbid or vitiated contents. The most efficient emetic used is Lobelia Inflata. It acts in perfect harmony with the laws of the



human system, and is not attended with any dangerous results. The secondary emetics are blood-root, bone-set, skunk cabbage, and Canada snake root; a tea of composition, if the stomach is very much disordered, will operate as an emetic, but not otherwise. All the secondary emetics cannot be employed with safety; some of them are harsh and dangerous.

*Anti-Spasmodics.* These are remedies employed to alleviate spasms, locked jaw, delirium tremens, hydrophobia, apoplexy, hysterical attacks, and suspended animation. The anti-spasmodic tincture, is one of the most powerful agents used, in this class of medicines. The others are lobelia, scullcap, cayenne and lady's slipper.

*Stimulants.* Stimulants are medicines that produce perspiration, and excite action in the living body. The purest stimulant is cayenne; the milder stimulants, are prickly ash, ginger, cinnamon, bayberry, fleabane, peppermint, spearmint, virginian thyme, pennyroyal and summer savory. We should always select the pure and healthy stimulants, avoiding those which are acrid, poisonous or narcotic.

*Antiseptics.* Antiseptics are medicines which are employed to prevent or arrest the progress of mortification, and are applied externally or internally as the occasion may require. Among the various antiseptic remedies are gum myrrh, rheumatic drops, cayenne, vinegar, wormwood, smartweed, and white ash bark. A tea made of white ash bark, applied to the parts affected, has been known to arrest severe cases of mortification.

*Expectorants.* Expectorants are medicines that loosen and promote the ejection of mucus, and other fluids from the chest, that is, from the windpipe, air-cells, and passages of the lungs. They are beneficial in croup, asthma, inflammation of the lungs, consumption, whooping cough and catarrh. They include honey, liquorice,



cough syrup, cough balsam, cough jellies, lobelia, slippery elm, buckhorn brake, Irish moss, fir balsam, liverwort, hoarhound, boneset, comfrey, elecampane, spike-nard, skunk cabbage, wake robin and cayenne. The three last should be compounded with some of the milder ones. These compose the principal expectorants.

*Tonics.* Tonics or restoratives, are a valuable class of medicines; they promote the appetite, strengthen the digestive organs, and restore a weak or debilitated system. They are generally resorted to in recovery from sickness, to give a firm tone to the system, and to assist nature, whereby the living powers are enabled to perform their functions. The leading tonics are American aspen or poplar bark, goldenseal, unicorn, barberry, balmony, peachmeats, boneset, chamomile, ginseng, gold thread hoarhound and wormwood.

*Astringents.* Astringents are those medicines which pucker the mouth, and contract the parts to which they are applied, or render it more dense and firm. They include beth root, evans root, white pond lilly, marsh rosemary, bayberry, hemlock, witch hazle leaves, red raspberry leaves, sumach leaves, myrrh, fleabane, hardhack, wintergreen and yarrow.

*Laxatives.* Laxatives are those medicines which will remove costiveness, and are distinguished from cathartics, inasmuch as they regulate the bowels, without purging. The principal laxitives are bitter root, black root, golden seal, balmony, barberry and American aspen.

*Demulcents.* It is supposed that mucilages enter the mass of the blood, and impart to it mucilaginous qualities, and also make soothing impressions upon the stomach and bowels, communicating to other parts of the system, their qualities; hence, they are beneficial in coughs, diarrhea, dysentery and inflammation, and are extensively used in the form of poultices for external



applications. Among them are hollyhock blossoms, slippery elm, comfrey, buckhorn brake and Irish moss.

*Nervines.* Nervines are agents which act directly upon the nervous system ; they quiet the nerves, without stupifying or deadening their action or sensibility. The principal nervines are purple lady's slipper, scull-cap, wild lettuce, lobelia, and yarrow.

*Diuretics.* Diuretics are those medicines which act upon the urinary organs ; they enter the system by absorption, and come in contact with the kidneys, which increase the urinary secretion. Diuretics consist of juniper berries, cleavers, wild lettuce, princes' pine, coolwort, fir, balsam, featherfew, and American aspen.

*Vermifuges.* Vermifuges are medicines which are given to destroy or expel worms from the system. The articles most commonly used, are Jerusalem oak, bitter root, poplar, balmony, wild cherrytree bark, golden seal, and wormwood. Indigo is frequently used, but we think it unsafe, and do not recommend its use.

*Carminatives.* Carminatives are those medicines which will expel wind from the body. White or pleurisy root, fennel, annis seed, peppermint, spearmint, Virginian thyme and sage. All of these articles are more or less valuable in removing pain caused by wind. Pleurisy root, however, is the most active, and may be freely used in most cases of disease.

*Cathartics.* Cathartics or purgatives act by stimulating the intestines with greater force than their natural contents, and increase the quantity of secretions from their inner coat. They include butternut, mandrake, black or culvers root, yellow dock, senna, elder flowers, and sumach bark.

*Aromatics.* Aromatics are those articles which diffuse an agreeable odor, and have a pleasant aromatic taste. The most diffusive ones, are peppermint, spear-



mint, fir balsam, camphor, golden seal, black birch, summer savory, Virginian thyme, tansy, cloves, pennyroyal, featherfew, wintergreen, ginseng, and meadow fern buds.

*Antiacids.* Alkaline substances are generally used to neutralize the acid or sour stomach, as it is often necessary. The following alkalines are generally employed; salætatus, pearlash, magnesia, bi-carbonate soda.

## COURSE OF MEDICINE.

The importance of emetics in the treatment of disease will readily be seen, when we take into consideration the intimate sympathy existing between the stomach and other organs, and parts of the body. As the stomach is the common centre of sympathy, it possesses to a great degree, the control of every other organ in the body; and it is only through its influence, that the system is enabled to overcome the disease. As the stomach often becomes diseased, it is necessary to administer a course of medicine to cleanse it of its morbid or vitiated contents. This, says Dr. Mattson, is the "one remedy for all disease" which the diplomatized physicians have condemned as being unphilosophical and absurd. We do not hesitate to say, however, judging from what we daily see of the regular practice, that a course of medicine will do more in a few hours, towards the removal of disease, than is often accomplished by the old school practice in days and even weeks. It equalizes the circulation, removes obstructions, invigorates the system, and restores every organ to its natural and healthy condition. When these results are produced, it matters not what may be the type of the disease, it tends to perfect a cure.

A course of medicine consists of a series of remedies, which are peculiarly adapted to the removal of disease; and unlike the lancet, calomel, arsenic, blistering, dig-



italis, opium, and the like poisons, employed by the regular faculty, they act in harmony with the laws of the human system, and are not attended with any dangerous consequences.

*A course of Medicine in severe attacks.*—In giving a course of medicine in severe attacks of disease, where an emetic is immediately to be taken, it is usually given without much preparation, excepting a free use of composition, bayberry or pennyroyal tea, with a heated stone placed at the feet. When the patient is sufficiently prepared for the reception of the emetic, it may be prepared by adding half a teaspoonful of lobelia seed to half a teacupful of pennyroyal or any other herb tea, to be taken at one dose. If vomiting does not ensue in fifteen or twenty minutes, the second dose may be administered, prepared in the same manner as the first ; if vomiting is not likely to be effected in fifteen or twenty minutes, the third dose may be given ; three doses is the usual number required, but sometimes one is sufficient, and at other times six or seven are required.

Whilst taking the emetic, and during its operation, the patient should drink freely of warm pennyroyal, or some other herb tea, which has a tendency to promote vomiting, as well as to make it more easy. It may be regarded as a general rule, that the more a person drinks, especially if vomiting be difficult to excite, or is laborious, the more readily and easily he will vomit.

*A course of Medicine in chronic complaints.*—In chronic complaints, or cases of long standing, such as dropsy, consumption, liver complaints, rheumatism, &c. the patient should take, four or five times a day, a dose of composition powders, or spice bitters ; in constipation, the stimulating enemas should be used to evacuate the bowels, before the application of the vapor bath.

When the patient is sufficiently prepared for the course of medicine, he should be placed in bed, and the vapor bath administered by means of the steam



pipe, or heated stones wrapped in damp cloths, and placed at the sides and feet. When the patient gets in a profuse perspiration, the emetic may be given by adding half a teaspoonful of lobelia powder, in half a teacupful of pennyroyal or any herb tea, sweetened, and repeat the dose every twenty or twenty-five minutes, until the stomach is effectually cleansed. The quantity must be governed by the judgment of the individual administering; remembering during the operation of the emetic, to give freely of nervine or stimulating teas.

In treatment of children, the tincture of lobelia is usually given, in the quantity of a teaspoonful in pennyroyal tea, sweetened to suit the taste. The vapor bath may be administered in the same manner as recommended above. Emetics should never be given, unless in extreme cases, without the patient taking freely of warming medicine to produce perspiration.

#### APPLICATION OF VAPOR BATHS.

The application of steam or the vapor bath, to promote perspiration, is highly beneficial in all forms of disease; the vapor may be applied to the system in various forms; the most efficient way of obtaining vapor, is by means of a tin or copper boiler of a convenient size; it may be so constructed as to set on a furnace or stove, with a pipe issuing from the top, about three-quarters of an inch in diameter, with a knee and stop faucet, to admit of a horizontal pipe. The pipe may be made of tin or copper, and of any desirable length; it is generally made in pieces from twelve to eighteen inches long, one end being the largest, to admit the end of the other, so that by this means the pipe may be lengthened or shortened as circumstances may require; the last length of the pipe should have a cup attached to it about three inches across and two inches deep, with numerous small holes in the cover, which will admit the vapor to pass out in a slow manner. The steam may be obtained in this manner and conveniently administered according to the circumstances of the patient.



*Baths with Blankets.*—The vapor bath may be administered, if the patient is not too weak, by placing him in a chair, divested of his clothes, and surrounding him and the chair by one or two blankets reaching to the floor, leaving his face uncovered that he may inhale fresh air ; the end of the pipe containing the cap should now be placed beneath the chair, the vapor gently let on by means of the faucet, and should be regulated according to the feelings and circumstances of the patient. Composition or stimulating teas should now be given. If the individual complains of being faint, the face and breast may be sponged or wet with cold water ; when he has perspired sufficiently, which will be in fifteen or twenty minutes, he should be thoroughly wiped off with a coarse towel, without being exposed to the cold air ; he may then be dressed or put in bed as the circumstances may require.

*Vapor by Steam Box.*—A very convenient mode of administering the vapor bath, is by means of a wooden box two and a half feet square, and seven feet high, with a platform fitted in about two inches from the bottom, and bored full of small holes ; the steam pipe should be introduced between the two bottoms, so as to cause the vapor to pass up equally through the platform on which the patient stands ; a seat is fitted of a convenient height in the back part of the bath, and a door is placed in front with two circular openings, one above the other, which enables the patient to breathe the external air either in an erect or sitting position ; a curtain may be placed over each opening and removed at pleasure. The vapor should be regulated by means of the faucet, and the temperature may be raised from one, to one hundred and twenty degrees, according to the feelings of the patient ; stimulating drinks may be freely given as above. The main object in this treatment to be kept in view, is to keep the internal heat of the patient, the highest ; if faint, part of a tumbler of cold water may be dashed in the face ; if



this revives him, the patient should remain in the bath until a free perspiration is produced, and then be wiped dry with a coarse towel ; he should be warmly dressed or put in bed, and use precaution, and not expose himself suddenly to cold air, for a sudden check of perspiration is attended with more or less serious derangement of the system.

*Bath in Bed.*—In many cases it is necessary to administer the vapor bath when the patient is too weak to stand or sit ; in those cases the bath may be administered while the patient is in bed ; the bed should be placed as circumstances may require, and the steam pipe introduced beneath the bed-clothes, and the cup placed near the feet of the patient, or near the seat of pain in any part of the system, the steam then let in, and the temperature regulated according to the feeling of the patient ; the patient in the meantime should drink freely of composition or stimulating teas ; if the patient is faint, his face and breast may be wet with cold water ; the vapor should be continued until the patient has perspired sufficiently, which will generally be effected in ten or fifteen minutes ; the patient, then, should be thoroughly wiped with a coarse towel wet in warm water, in order to remove the glutinous or gummy substance which is thrown out upon the surface of the body while perspiring ; if permitted to remain on the surface of the body, it deters the insensible perspiration, which tends to derange the system, and increase the existing malady. Care should be taken not to expose the patient to the cold air, the hand may be passed in bed beneath the bed clothes, by which means it may be prevented, and the patient briskly rubbed, as friction in some cases is of much importance ; the linen then should be changed, and bed-clothes removed, or he should be put into a bed previously warmed and prepared for the occasion, which is preferable ; no garment, however, should be put on the patient without being thoroughly aired or warmed by the fire.



*Bath by heated Applications or Stones.*—When it is not convenient to obtain a steam-pipe and boiler, it may be administered as follows: take two or three stones or bricks heated quite hot, immerse them in water till they have done hissing, and wrap them separately in damp cloths, placing them at the sides and feet of the patient; stimulating teas should be used as above. When the stones become cold, if the patient has not perspired sufficiently, they should be removed and their place supplied with hot ones, and continued until free perspiration is produced. This is a convenient way of administering the vapor bath in milder cases of disease, and is generally used while giving an emetic. It is also administered in severe colds, and light attacks which the system is subject too, and will generally arrest a fever in its early stages: a stone placed at the feet will generally relieve headache. Persons who are troubled with cold feet or rheumatism, will find it highly beneficial by placing a heated stone at the feet on going to bed, and drinking freely of composition tea; it tends to allay inflammation, equalize circulation, and gives tone and vigor to the whole system, by which means, when he rises in the morning, he finds his joints limber, the system vigorous, and ready to perform its daily task.



## PART VI.



### CAUSES, SYMPTOMS, AND TREATMENT OF DISEASE.

As a general thing, the cure of disease does not depend so much upon scientific treatment as many imagine. If we acquaint ourselves with the structure and functions of the human system, and by attending the sick, and carefully observing the various occurrences in disease, a great degree of accuracy may be acquired, both in distinguishing their symptoms, and in the application of medicine. Every disease is attended with an assemblage of symptoms, and must be distinguished from each other by those which are the most obvious and prominent.

If we pay proper attention to the patient's age, sex, temper of mind, constitution, and manner of life, it will greatly assist us, both in the investigation and treatment of disease. In children the fibres are lax and soft, the nerves extremely irritable, and the animal fluids are thin ; but in old age the fibres are rigid, and the nerves become almost insensible. The effects of disease are different on different constitutions. Delicate persons, for example, with weak nerves, who are mostly confined within doors, should not be treated in any disease precisely in the same manner, as those who are more exposed to the open air, and are of a hardy, robust constitution. The quantity of medicine, and the frequency of the courses given, must be regulated according to the age and circumstances of the patient.



In the treatment of disease, it would be proper to know whether it is constitutional or accidental, or whether it has been of a long or short duration ; whether it proceeds from any sudden exposure, or from the manner of living. The state of the patient's body, and of the avocations ought to be enquired into. We may be much assisted by knowing what disease the patient has been subject to, and what medicines have been most beneficial to him.

Persons that know no better, imagine that every thing which goes by the name of medicine, possesses some wonderful power or secret charm, and think if the patient swallows drugs enough, he must get well. This mistake has led to many serious consequences ; people trust to drugs and neglect their own endeavors ; and it often discourages all attempts to relieve the sick, when proper medicines might be obtained. Medicines no doubt are useful in their places, when of a proper kind, and administered with prudence and care may do much good ; but when they are poisonous, and administered at random, which is frequently the case, they do more hurt than good. We wish, therefore, to call the attention of our readers from the pursuit of secret medicine, to such as they are acquainted with. A proper administration of these often does much good, and there is no danger of their doing any harm.

*Remarks on Fevers.* Fever, as we have remarked, is an effort of nature to free herself of an offending cause. It should be the business of those who have the care of the sick to observe with diligence, which way nature points, and endeavor to assist her operations. Our systems are so constituted as to have a constant tendency to expel, or throw off whatever is injurious to health ; this is generally done by urine, sweat, stool, expectoration, vomiting, or some other evacuation. There is reason to believe, that if the efforts of nature at the beginning of a fever were duly attended to, and assisted, the cause might be easily removed. But



when it is not assisted, but even counteracted by poisonous medicines, it is not to be wondered at that this disease proves fatal. Fresh air is highly beneficial to patients in fever ; it removes his anxiety, revives his spirits, and proves a benefit every way ; nothing spoils the air of a sick person's chamber, or hurts the patient more, than a number of people breathing in it. When the blood is inflamed, or the humors in a putrid state, air that has been breathed repeatedly, greatly increases the disease.

*Mode of administering Medicine.* In the treatment of disease, we shall not in every case give the precise mode of administering a course of medicine, as we think it is a matter of great importance to every individual, at least those who are heads of families, to make themselves acquainted with the properties of medicines, and different modes of administering them ; we have been concise in giving directions in our course of medicine, vapor bath, emetics, &c. ; it would be but little trouble for people to commit it to memory, and would greatly assist them in the treatment of disease.

In the treatment of disease, where a course of medicine is to be given, the same course may be pursued as directed under the head of a course of medicine, followed with enemata, stimulating teas, &c. When we speak of giving an emetic, it is to give pennyroyal or stimulating teas, and lobelia sufficient to cleanse the stomach. By tonics, it may be understood that we mean any of those strengthening medicines which are given under the head of tonics. Judgment, however, must be used in administering them, as there cannot be any definite mode laid down for that. The quantity of medicine should always be regulated according to the age, circumstances, or strength of the patient. When we use the term diaphoretic tea, we mean the one given in the list of teas ; but when we speak of stimulating teas, we mean any of a stimulating nature, and may be selected according to the choice of the patient ; but we



wish to have the diaphoretic tea distinguished separately by itself, as it is a stimulant, nervine, and anti-canker medicine, and it will be considerably referred to in most cases of disease. With these directions, if judgement and discretion is used, we think persons will be able to treat most of the diseases to which the human family are subject.

### LUNG FEVER.

Lung fever is generally attended with more or less inflammation on the lungs. The patient is generally seized with cold chills or shivering, succeeded by heat, flushes of the face, dryness of the skin, intense thirst, tongue thickly coated with white fir, which generally grows darker as the fever advances. The breathing soon becomes hurried or laborious; a pain more or less acute, is generally felt in some parts of the chest, increased by breathing and particular positions of the body; the pain is commonly fixed, but sometimes shoots towards the shoulders or upper part of the chest. It is generally accompanied by a short distressing cough, by which the pain is increased. The pulse at first is most commonly full, strong, hard and frequent; but in a more advanced stage, it usually becomes weak, soft, and often irregular.

In severe or violent attacks, the countenance often becomes livid, the lips purple, attended with stupor, and sometimes delirium, with much difficulty of breathing, acute pain, and a dry harsh cough; if there be any expectoration, it is usually of a glutinous substance, and adheres to the sides of the vessel in which it is contained.

This disease is most prevalent in the spring and fall, during the cold and changeable weather. It generally attacks those of weak lungs and slender constitutions. If the animal functions are weak, cold or changeable weather has an injurious effect upon the system; hence persons of weak habits, should be suitably clothed and be very particular to avoid wet feet.



*Treatment.* As this disease often proves fatal, effectual means should be immediately resorted to for its removal. In severe attacks a thorough course of medicine should be immediately resorted to, and repeated as the symptoms seem to require ; it is sometimes necessary to administer a course twice a day, but usually once a day or every other day. In severe cases, where there is much congestion of the lungs, advantage may be gained by applying onion drafts to the stomach and feet ; and in the treatment of children and feeble persons, they never should be dispensed with, as they have a soothing effect upon the nerves, and assist in equalizing the circulation, which takes the determination of the blood from the lungs, which is of great importance when diseased or inflamed.

We should commence by giving stimulating drinks, such as the diaphoretic, or composition and cayenne tea, a teacupful or less, according to the age ; the vapor bath should be applied, either by means of the steam pipe and boiler, or by heated applications being placed at the sides and feet ; stimulating teas should be freely used until perspiration is produced. As soon as the patient perspires freely, lobelia emetic may be given, by taking half a teaspoonful of the pulverized lobelia seed, or emetic powders, added to half a teacup of warm water, or any herb tea, and administer to the patient, and repeat the dose every fifteen or twenty minutes until vomiting is induced ; pennyroyal or some other stimulating herb tea should be freely drank, during the operation of the emetic. The dose should be repeated until the stomach is thoroughly cleansed. After the patient has had a little repose, and the excitement of the system a little subsided, a stimulating enema should be given, care being taken not to expose the patient to the cold air. A course should be given twice a day, or once a day, or every other day, as the severity of the case may seem to require. It should always be borne in mind, that the doses should be regulated according to the age and circumstances of the patient.



Between the course, the composition or diaphoretic tea should be given to keep the skin moist ; if the breathing be difficult, and the cough troublesome, a couple of teaspoonsful of tincture of lobelia may be added to the diaphoretic tea, and drank whenever there is an inclination to cough, or one or two stomach pills may be taken at a time, two or three times a day. This treatment, if timely and properly administered, will generally arrest the most violent attacks of this disease.

During recovery, if the patient is nervous, a free use of nerve powder, or any of the nervine teas should be used ; if constipation of the bowels exist, one or two enemas should be given every day ; if this does not prove sufficient, the laxative syrup may be used, or half a teaspoonful of bitter root may be given in half a tea-cup of composition tea, two or three times a day. The patient's strength should be assisted by proper tonic medicines, such as spice and wine bitters, restorative cordials, and the like medicines, which will strengthen the digestive organs and promote the appetite. Light and nourishing food should be taken ; those articles only should be eaten which are easy of digestion, and great care should be taken not to overload the stomach, and shun all other causes that are likely to produce a relapse.

We have been particular in giving the precise manner of administering a course of medicine, in order that the reader may know what course to pursue in all cases where a full course of medicine is recommended. It should be distinctly borne in mind, that an emetic should never be given except in extreme cases, such as fits, locked jaw, croup, &c., without the patient being placed in bed, and drinking freely of stimulating or herb teas, and being got into a free and profuse perspiration, as this relaxes the system, which increases the nervous influence, and loosens the morbid or vitiated matter from the mucous membrane that lines the stomach, which enables the emetic to operate more easily, and more effectually cleanses the stomach from the morbid



or vitiated contents. If these rules are strictly observed, much of the severe or harsh effects of emetics on weak or nervous persons would be obviated.

## BILIOUS FEVER.

Bilious or Remittant Fever is most prevalent in low and marshy countries, which abound with wood and stagnant waters, and is very common in the Western and Southern States, prevailing the most in hot weather near lakes and rivers; when their waters are low it often rages to an alarming extent. No age, sex, or condition is exempt from an attack of this fever; but it generally attacks persons of a lax habit, who live in low and dirty habitations, breathing impure air, using stagnated water, exposing themselves to night air, and partaking of unwholesome food.

*Symptoms.* The first symptoms of this fever is languor, drowsiness, bitter taste in the mouth, nausea, aversion to food, and often vomiting bilious matter. The patient generally feels a heaviness over the eyes, giddiness in the head, with alternate fits of heat and cold; there is a severe pain and sometimes a swelling about the region of the stomach, the tongue covered with a white or dark brown coating, eyes and skin frequently presenting a yellow appearance, pulse sometime a little hard, but seldom full.

The bowels are generally costive, and the tongue, during the paroxysm of the fever, after the disease has continued for sometime, becomes dry and covered with a whitish or light brown fir. There is at the same time considerable thirst, and sometimes delirium. The fever generally continues from eight to twelve hours, when a slight moisture may be observed on the surface, but more generally the skin continues dry after the heat has declined. A paroxysm of fever generally occurs once every day, and sometimes twice in the same day.



*Treatment.* In bilious fever, the stomach, liver and bowels, are each more or less affected. The most natural course of treatment would be to administer a full course of medicine, in order to restore as soon as possible those organs to a healthy action. After the stomach is thoroughly cleansed, stimulating enemas should be given to evacuate the bowels, and should be used several times a day, as long as the stool is offensive or unnatural. If this does not produce a healthy action of the bowels, laxative medicine should be used, or from four to six of the vegetable bilious pills may be given. Courses of medicine should be continued until the violence of the disease has subsided. Care should be taken after each course to keep up a gentle perspiration, by diaphoretic and stimulating teas, and heated applications to the feet. The quantity of medicine, and the frequency of the doses must be regulated by the individual administering, judging from the effect it produces on the patient. The object is to keep up his strength, and a moist state of the skin.

After all of the unfavorable symptoms and remissions have subsided, we should endeavor to assist the patient to regain his strength. A tea may be given composed of Virginian snake root, ginseng, chamomile flowers, raspberry leaves, and bayberry ; this should be steeped in a suitable quantity of water, and half a teacupful of it may be taken three or four times a day. If the patient is thirsty, composition or diaphoretic tea should be used, which has a tendency to keep up an action in the system ; spice bitters, also, may be taken once a day. As the patient's strength increases, he may take of the spice bitters two or three times a day ; if this does not increase the strength and appetite sufficiently, any of the tonics or restorative medicines may be used. The patient should avoid fatigue, or exposure to cold or damp air, and a strict attention paid to diet.

If the appetite should be too strong for the digestive powers, and the patient eats too much, it will be almost sure to bring on a fatal relapse. If the patient should



find himself pressed at any time, from food, or any other cause, he should immediately take a light emetic. If this does not remove it, a full course of medicine should be taken.

### TYPHUS FEVER.

This disease is the most prevalent in the winter ; it generally attacks those who are exposed to damp and unwholesome air. Hence it is very common in rainy seasons, and proves most fatal to persons that live in low and dirty houses, crowded streets, and large manufacturing towns ; those who are confined in damp jails, and hospitals, lying on damp ground, and excessive fatigue, are most liable to its attacks. Persons whose constitutions have been broken by excessive tight lacing, frequent salivation, and a free use of purgative medicines, are also liable to this disease.

*Symptoms.* When this complaint first comes on, a person will feel depression of spirits, want of appetite, weakness, weariness after exercise, pain in the back and head, great dispersion and loss of muscular strength, universal weariness and soreness of the limbs ; the eyes appear full, heavy, yellowish, and often a little inflamed. Respiration is commonly laborious, hot, and offensive ; the tongue is dry and parched, and covered, together with the mouth and teeth, with a brown or dark sticky fir ; delirium arises and the patient mutters much. The pulse usually small, quick, hard, and occasionally fluttering.

When the sinking stage comes on, the pulse is very quick and feeble ; the patient catches at imaginary objects, picks the clothes, and a twitching of the lips, eyelids, and hands are perceived ; the countenance becomes livid or sunken, tongue rough and black ; hiccups, a low muttering delirium, and deathlike stupor, are among the most unfavorable symptoms.



*Treatment.* When a disease is characterized by the above symptoms, and is ascertained to be of a typhus or putrid kind, the most active means should be resorted to for its speedy removal. The patient should drink freely of cayenne, diaphoretic, composition and stimulating teas; and the vapor bath should be administered by means of the steam box, provided it can be obtained, and the patient is sufficiently strong; he should remain a sufficient length of time to produce a copious sweat, which will be in ten or fifteen minutes, and should then be rubbed with a coarse towel, and put into a bed suitably warmed for the occasion, with heated applications at the feet; a lobelia emetic should then be given, with all the other remedies requisite for a course of medicine. This will throw off the waste matter contained in the system, which has a tendency to run to putrefaction.

If this bath cannot be obtained, it may be given in the usual manner of applying the vapor in bed; two or three courses may be given if the strength of the patient is not too much exhausted, at intervals of twelve or twenty-four hours. Between the courses we should endeavor to keep up a gentle and equal perspiration over the whole body, as this is very necessary in all cases of fever; for this purpose, diaphoretic, cayenne, and bayberry teas should be freely used. If this does not check the violence of the disease, medical aid should be immediately procured.

But if the symptoms should indicate that the violence of the disease be removed, means must be employed to keep up the strength of the patient. Nervine and diaphoretic teas, should be freely used, together with mild stimulating tonics. Dr. Howard remarks, that a patient recovering from typhus fever, should have nourishing food, easy of digestion, soothing and refreshing drinks, while the room should be well ventilated—that is, have a free circulation of air through it, but never allowed to come in a current upon the patient, and every means used to keep the apartment clean and sweet;



and to render it more pleasant both to the patient and attendants, the floor should be sprinkled several times a day with warm vinegar and camphor. The clothes of the patient, as well as of the bed, ought to be changed and kept clean.

### YELLOW FEVER.

Yellow Fever is a disease peculiar to warm climates ; it is more prevalent and more fatal in excessively hot seasons. That alone, however, is not sufficient for the production of yellow fever. It is more commonly generated by an impure state of the air ; the want of cleanliness is a very general cause of putrid fever ; hence it prevails, more generally, among the poor inhabitants of large cities, who breathe a confined and unwholesome air, and neglect cleanliness. Sailors, also, who are confined in ships for a long voyage, and mechanics who are employed in dirty shops or cellars, as is the case in large cities, are very liable to this disease.

*Symptoms.* This disease is attended with a great diversity of symptoms in different cases ; in some patients the symptoms are very mild ; others it attacks suddenly, with a remarkable weakness, without any apparent cause ; the system is so affected that the patient can scarcely walk or even sit upright without being in danger of fainting. He is seized with chills, pain in the head, back and limbs, and occasionally with nausea or vomiting ; the eyes appear red and inflamed, with a pain at the bottom of the orb, noise in the ear, breathing, laborious and often interrupted with a sigh ; the patient complains of a pain about the region of the stomach, back and loins ; the tongue is at first white, but afterwards it becomes black and thickly coated, the teeth covered with a black crust, and he is affected with tremors or shivering, and often becomes delirious. In the last stages of this complaint, the pulse sinks and



becomes small and quick ; the black vomit commences, the extremities become cold, and a profuse diarrhea sets in which soon reduces the patient very low. The black vomit consists of blood almost in a putrid state ; it resembles coffee dregs in appearance.

*Treatment.* The violence of this disease seems to require active treatment. In order to arrest putrefaction, the system should be cleansed by administering a thorough course of medicine, and warm stimulating enemas should be freely used ; if these do not afford relief, they may be repeated as soon as the skin becomes hot and dry, or other unfavorable symptoms arise. The patient should be kept in a gentle perspiration between the courses of medicine, by drinking freely of cayenne and bayberry tea, to which may be added a small portion of tincture of lobelia.

We presume no person, however, who has not had considerable experience, will attempt to treat a severe case of yellow fever, as it is one of the worst forms of disease that is met with in the practice of medicine. If any person, however, be under the necessity of taking medicine himself, or administering to any of his friends in this form of disease, and should succeed in arresting its progress, and the patient begins to recover, the same tonics or restorative medicines may be given as recommended in typhus fever.

#### INTERMITTENT OR AGUE AND FEVER.

Intermittent or Ague and Fever, is a disease peculiar to low and flat countries, with hot climates, abounding with fresh rivers and marshes, and is very prevalent in the Southern and Western States. People that move to the west and south, from the high northern countries, are exceedingly liable to its attacks. Many things, however, are calculated to bring on this disease, such as poor diet, great fatigue, long watching or doing without sleep, intemperance, grief, great anxiety, exposure to



cold, lying in damp rooms or beds, wearing damp clothes, and breathing a vitiated or noxious atmosphere ; the last is by far the most universal and common cause of this complaint. Each paroxysm of this fever is divided into three different stages, which are called the cold, hot, and the sweating stages or fits.

The first or cold stage, commences with a chill invading the back, and the rest of the body, with a sensation of creeping or tremor. This state of the chill when perfect, is marked by extreme cold, which requires an immediate application of warmth to raise the temperature of the body. At the same time there is a degree of tremor or shivering usually more violent than the impressions of external cold. The patient may continue in this state for a few minutes only, or for several hours. When the chills abate a fever succeeds. The chills generally return daily, or every other day, according to the severity of the disease. In this stage the pulse is frequent, small, and irregular, the breathing anxious and sighing, attended occasionally with a cough.

The second or hot stage comes on with a sense of heat over the whole body, redness of the face, dryness of the skin, increased thirst, pain in the head, throbbing in the temples, anxiety and restlessness ; the respiration is now more free, but still frequent, the tongue furred, and the pulse more regular, hard and full, and increases in those qualities till the perspiration begins to break out, the respiration becomes more full, and continues frequent and anxious ; if the attack has been severe, delirium, perhaps, will come on.

In the third, or sweating stage, the sweat appears at first about the head and breast, and thence gradually extends over the whole surface of the body. As the sweating progresses, the heat abates, the thirst ceases, breathing becomes free and full, and most of the functions are restored to their ordinary state ; the patient, however, is left in a weak and wearied condition, the pulse becomes soft and less frequent, returning grad-



ually to its natural state, and the anxiety and difficulty of breathing are removed. This constitutes the third stage, and completes the paroxysm of fever.

*Treatment.* In the cure of intermittent fever, the two leading indications are, first, to shorten the paroxysm, and render the intermission perfect ; and secondly, that which is to be employed during the intermissions, (and upon which the radical cure of the disease depends. In the cold stage, medicine is not only proper, but essential to the safety of the patient. In the cold stage of an intermittent, the patient should be kept moderately warm, and as there is an urgent thirst, warming drinks should be freely used, such as composition, bayberry, or the diaphoretic tea. Too free use of stimulating drinks and heated applications, with the view of moderating the sense of cold, is improper ; it seldom gives relief, and often tends to increase the violence of the succeeding hot stage.

During the hot stage, care should be taken to keep the body in as quiet condition as possible ; stimulating tea should be given, together with stimulating enemata. If the case is obstinate, this should be followed by a thorough course of medicine, using cayenne, bayberry, and scullcap freely, which will arrest the paroxysm, or greatly diminish its violence. After this and the succeeding stage have subsided, the tonic treatment should be commenced, and it is highly important that the system should be kept under a due degree of stimulation without remission.

Best yellow Peruvian bark, collombo, each one ounce, cayenne, bitter root, and nerve powder, each one table spoonful, water half a pint. Take a large table spoonful every two hours. If this is not laxative enough to produce the desired movement of the bowels, mandrake or bitter root may form a suitable combination to accomplish that purpose.



## SCARLET FEVER.

Scarlet Fever may be distinguished from other fevers, by the bright scarlet appearance of the patients skin. It sometimes attacks aged people, but more commonly young people and children ; it is contagious like the measles, or small pox, and seldom attacks persons more than once during life. Scarlet fever may be distinguished by the rash, which is accompanied with a degree of fever, and the throat is generally slightly affected ; the rash first makes its appearance in small red spots about the neck and face ; the second or third day it may be seen over the whole body ; the fourth day the eruption is generally at his height, and on the fifth or sixth it begins to decline. There is sometimes considerable swelling about the face ; the throat becomes swelled and very much inflamed, and the patient becomes hoarse, swallowing difficult and painful, the skin excessively hot, tongue red and dry, with intense thirst. The throat often becomes cankered if the inflammation be not checked. The more unfavorable symptoms are vomiting, soreness of the bowels, delirium or stupor, copious flow of urine, involuntary discharges from the bowels, purple spots on different parts of the body, extremities cold, a full, irregular pulse.

*Treatment.* In mild cases of scarlet fever, it will only be necessary to give an emetic, followed with a free use of saffron, bayberry and stimulating teas, to promote perspiration, and to bring out the rash, which is a matter of great importance in the treatment of this disease ; stimulating enemias also should be freely used. If the disease should assume a more putrid form, thorough courses of medicine should be administered, in order to throw the putrid matter from the system, and a free use to be made of the stimulating drinks ; copious sweats should be produced in order to throw off the waste matter, which, if retained in the system cankers or runs to putrefaction.



This treatment should be repeated until the violence of the disease is subdued. In case of canker or swelling of the throat and glands, strong canker tea should be freely used as a gargle and drink, such as is given under the head of teas. If it should assume the form of putrid sore throat, it should be treated the same as recommended in the treatment of that disease.

Persons recovering from this disease, should not expose themselves too soon, and should eat lightly of mild nourishing diet, as over-eating and exposure to the cold air, is always attended with dangerous consequences. It brings on an inflammatory state of the system, which is commonly accompanied with a swelling of the feet and limbs, resembling dropsy; and if it spreads over the whole body, it generally proves fatal. After the patient is sufficiently recovered, and if none of those inflammatory symptoms are perceivable, he should take the usual method to brace up the system; he should commence by using some of the mild tonics, nervines and stimulating teas, and all other remedies necessary for the restoration of health.

### MEASLES.

Measles is a disease most prevalent among children; it is an eruptive disease, and the symptoms resemble that of scarlet fever. There are several things however by which it may be distinguished from scarlet fever; the eruption rises above the skin more, and resembles somewhat a flea bite, and makes its appearance about the third day on the chin and breast, and does not reach the hands till the third or fourth day.

*Symptoms.* The first attack of measles is generally ushered in by chillness and shivering, succeeded by heat, thirst, anxiety, pain in the head, back and loins, heaviness, severe cough, drowsiness, running at the nose, heat and inflammation in the eyes, often great acuteness of sensation, so that they cannot bear the



light without pain. The eyelids frequently swell so as to occasion blindness, and the patient complains of his throat; vomiting, or looseness of the bowels, often precedes the eruption. The eruptions generally turn about the seventh day; they turn pale on the face, and afterwards upon the body, and by the ninth day they entirely disappear. This disease if improperly managed, often leaves the patient consumptive, or in a dropsical state.

*Treatment.* In the first attack of this disease, but little is necessary, except to give stimulating drinks, such as saffron, snake root, pennyroyal, spearmint and bayberry, or a tea may be made by taking half a pint of gin, half an ounce of saffron, half an ounce of snake root, to which may be added a tea cup of hot water; one or two table spoonsful may be given three or four times a day. This will turn the determining powers outwards, and generally throw out the eruption. If it does not make its appearance, however, in three or four days, a thorough course of medicine should be given, followed with a free use of stimulating teas; if this does not bring out the eruption, the course may be repeated.

If the cough should be troublesome or severe, slippery elm, comfrey, buckhorn brake or spikenard teas may be given, cough balsam, or any of the cough mixtures; tincture of lobelia dropped on sugar, will also loosen and relieve a cough. When the violence of the disease abates, and the patient begins to recover, the common tonic preparations should be prudently used. The patient should not expose himself too suddenly to currents of cold air, as it will affect his eyes, and have a tendency to debilitate his system.

#### SMALL POX.

This disease is supposed to be the highest state of putrefaction, or canker, that exists in any eruptive disease, and is probably the most contagious of any dis-



ease known, and has been a scourge to the human family. Since the discovery of vaccination, its ravages have been much less. We think, however, that if proper attention were paid to the system, its effects would be milder, and if proper medicines were always administered, no more difficulty, we presume, would be found in removing this than any other eruptive disease.

*Symptoms.* The patient is seized with coldness or shivering, which is succeeded by fever or heat, accompanied with great uneasiness, pain in the region of the stomach, soreness of the throat, pain in the head and back, vomiting, great thirst, stupor and sometimes delirious. The tongue is at first covered with a white coat, but gradually assumes a scarlet or brown color; the pulse is quick and weak. With proper treatment the eruption makes its appearance about the third or fourth day; it commonly appears first on the face, neck, and breast, and extends over the whole body in the course of the fifth day, when the eruption is fairly out, the fever, sickness, vomiting and other oppressive symptoms abate, and leave the patient quite at ease.

The eruption appears in small red spots, raising a little above the skin, and by degrees forming pimples, which generally enlarge, and on the fifth and sixth days, are found to contain a yellowish fluid, which appears on the top of each pimple. These enlarge considerably during the seventh day, and about the eighth are raised to round pustules, and their intermediate places become red. The ninth and tenth days, the face often becomes swollen, the eyes frequently closed, and the matter in the pustules becomes thick; the swelling of the face on the eleventh day, subsides, the pustules appear quite full, and dark spots appear on the top, from which matter oozes, dries on the surface and forms a crust. After some days, the crust and the hardened pustules fall off, leaving the skin which they covered, of a brown or red color, and it is several days before it regains its natural complexion.



*Treatment.* In the treatment of small pox, we are not to expect that the sickness, vomiting, heat, thirst, and fever, which occur before the eruption appears, to be totally escaped by the use of any class of remedies ; but they may certainly be very much alleviated, and their influence on the subsequent disease much diminished. When the type of the disease is ascertained, a thorough course of medicine should be immediately given, to relieve the system of its oppression, and to assist in bringing out the eruption. Diaphoretic and canker teas should be given to bring out the eruption, and to keep the surface of the body moist. A stimulating enema should be given once or twice a day, and if the patient should be thirsty, he should drink freely of composition tea, to which may be added a small portion of tincture of lobelia.

If the patient becomes feverish, and unfavorable symptoms appear, the course of medicine should be repeated, at proper intervals, until the violence of the disease is abated. The patient should abstain from all animal food, and should subsist on vegetable diet, such as gruels, jellies, sago, rice, &c. Between the courses of medicine, pains should be taken to keep the patient's skin in a moist state ; if he should become restless, the stimulating or scullcap teas may be given, or the nerve powder may be added to any other medicines.

After the eruption is removed, and the patient begins to recover, he should be assisted by the use of mild tonics, the administration of which must be left to the judgment of the individual administering them. Ventilation of the room where a patient is confined with the small pox, is of great importance, not only to the patient, but is actually necessary for the comfort of the attendant. Care however, should be taken not to have too strong a current of air come upon the patient ; his bed clothes also, should be regulated according to the season, and should be changed every day, or every other day, at least, as there is usually an unpleasant



odor arising from the body of the patient during the latter stage of this disease ; hence the greatest degree of cleanliness should be observed.

### INFLAMMATION OF THE BRAIN.

Inflammation or dropsy of the brain, may proceed from an injury done to the brain itself, but more generally arises in consequence of other diseases. In acute diseases, such as fevers and inflammatory affections, that have been treated by regular physicians, and been dosed during treatment with poisonous medicines, it is often said that the patient died with dropsy or inflammation of the brain. As this is known to be a fatal disease, it generally satisfies the parents or friends of the individual who thus falls a victim to it. We think in such cases, however, it oftener arises from poisonous drugs, than from the disease that the patient is afflicted with.

Inflammation of the brain, however, may proceed from injuries inflicted upon the head, or it may proceed from an original laxity or weakness of the brain, or a dropical collection, or excrescences within the skull, a thin watery state of the blood, a diminished secretion, sudden check of perspiration, or indigestible and poisonous substances taken into the stomach. Inflammation also, may be extended to the brain, from the eyes, internal cavity of the nose, or from the scalp, and other affections which throw an undue quantity of blood to the head.

*Symptoms.* Inflammation of the brain is generally attended, at first, with slow fever ; the patient complains of a dull pain in the crown of his head, or over his eyes, sickness at the stomach, and sometimes vomiting ; the pulse is irregular and generally low ; the patient is sometimes delirious, and frequently sees two things at once.

If the inflammation is not checked, and the disease progresses, the pulse becomes frequent and hard, in-



tense pain in the head, and becomes fixed about the forehead ; these pains are generally accompanied with heat, dryness of the skin, with redness of the face and eyes, a fixed, dull, or ferocious expression of the countenance, laborious respiration, a red and pointed tongue, deep colored and scanty urine, constant agitation of the body, and convulsive movements of the limbs, which terminate in violent convulsions of the whole body.

*Treatment.* Inflammation of the brain should be treated with due caution and care. The great end to be obtained, is to restore an equilibrium to the circulation, and check the determination of blood to the head, which is actually necessary to allay the inflammation. This may be accomplished by applying mustard or other strong drafts to the feet, with the usual heated applications. Diaphoretic tea, also, should be freely used, to assist in equalizing the circulation. After a suitable action is produced in the system, the vapor bath should be given, by placing the pipe at the feet, and compressing the clothes about the waist of the patient, to prevent the action of the vapor upon the chest. At the same time the head should be kept cool, by applying cloths wrung out in cold water, or the head may be bathed with vinegar and water.

After we get the determination of blood from the head, and the pressure somewhat relieved, a full course of medicine should be given, and repeated as often as the urgency of the symptoms seem to require. Stimulating enemata should be administered two or three times a day. Between the courses, a gentle perspiration should be kept up by the use of diaphoretic, cayenne, and the stimulating teas, to which may be added a small portion of tincture of lobelia. This treatment will generally arrest the disease in all curable cases.

After the inflammation is checked and the disease abates, the mild stimulants and tonics should be used, to restore the strength of the patient : the feet and



limbs should be kept warm, and care taken to avoid too sudden exposure to cold air ; the food, also, should be of a very light and nourishing kind.

### INFLAMMATION OF THE STOMACH.

All inflammations are nearly the same, but the symptoms vary according to its location. The stomach is exceedingly liable to become inflamed, as it is the common receptacle of numerous substances ; many of them are liable to produce inflammation ; those that are poisonous, or excessively hot or cold substances will disease the stomach, unwholesome food, or a free use of spiritous liquors ; or it may arise from diseases of the other organs.

*Symptoms.* In this disease there is a fixed acute pain, and a sense of burning in the region of the stomach, with great soreness, much difficulty of swallowing, nausea, especially after eating, and occasionally, vomiting. The tongue is mostly red, and sometimes covered through the centre with a brown coating, intense thirst, short and painful cough, hiccuping, restlessness, costiveness, and cold clammy sweats ; the pulse is contracted, frequent and hard, and the patient often becomes delirious.

*Treatment.* In the treatment of this disease, all possible care should be taken not to administer any thing in substance, which has a tendency to irritate the stomach. Mucilages and mild stimulants should be used to allay inflammation. Heated applications should be applied to the feet, and enemas administered two or three times a day, to evacuate the bowels. Ten or fifteen drops of fir balsam may be taken ; also fifteen or twenty drops of tincture of guaic, three or four times a day, and a free use to be made of slippery elm tea ; two or three teaspoonsful of tincture of scullcap may be taken two or three times a day ; if the cough is troublesome, a teaspoonful of the cough balsam should be taken.



After this treatment, if the violence of the disease does not abate, a course of medicine should be given, by adding half a teaspoonful of lobelia seed to the enema, and repeat until vomiting is induced. The courses should be continued until the violence of the disease is subdued. Between the course, the patient should drink freely of slippery elm, diaphoretic, and weak composition tea, in order to keep in a gentle perspiration. In this disease, the patient should refrain from all animal or solid food, or any substance that would irritate the stomach, until a permanent recovery; arrow root, custards, sago, slippery elm and milk, chicken broth, and the like food, may be moderately used during recovery.

### INFLAMMATION OF THE LIVER.

Acute inflammation of the liver, is of more frequent occurrence in hot, than in temperate or cold climates. It more frequently attacks adults, than children. The most general causes are excessive heat, sudden exposure of the body to cold or dampness when heated, sedentary habits, luxurious living, frequent salivations, which powerfully affect the liver, compression of the chest by tight lacing, severe blows or injuries of the right side, violent passions, rage, anger, and excessive use of ardent spirits, are all calculated to derange the system, by which the liver often becomes affected.

*Symptoms.* They vary according to the degree of inflammation, and that part of the liver which is affected. In acute inflammation of the liver, the patient is generally seized with a chill, which is soon succeeded by all the symptoms of fever; he soon feels a severe pain in the right side, and a sense of weight or fullness in the region of the liver. The pain commonly extends to the breast, collar bone and shoulder of the right side; the pain is increased by pressure on the side, difficulty of breathing, loathing of food, and great thirst.



Chronic inflammation of the liver, says Dr. Mattson, is usually accompanied by a morbid complexion, loss of appetite and flesh, costiveness, indigestion, flatulency, clay colored stools, pain in the stomach, a yellow tinge of the skin and eyes, high colored urine, which deposits a red sediment, and ropy mucus, an obtuse pain in the region of the liver, extending to the shoulder, and not unfrequently with a considerable degree of asthma.

*Treatment.* Inflammation of the liver is the same as that of any other internal organ, and should be treated nearly the same. Acute inflammation of the liver, is often very difficult to cure ; sometimes, indeed, it is beyond the reach of medicine, especially if too far advanced. A chronic form of this disease is often very mild, attended only with heaviness and pain in the side. No time, however, should be lost in checking its progress ; this may be done by making use of the diaphoretic tea sufficiently to keep the skin moist ; one or two of the stomach pills may be taken two or three times a day ; stimulating enemata should be used once or twice a day, and laxative syrups, or bitters, may be used in moderate doses once a day ; the spice bitters should be taken three times a day before eating ; the side should be bathed once a day with rheumatic liniment, if there is much pain, otherwise a strengthening plaster may be applied to the side. A dose of the vegetable bilious pills may be given once a week ; the best time for taking them is generally on going to bed, and in most cases they will produce a movement by morning. In twenty-four hours after they have done operating, a course of medicine should be given, and repeated, together with the pills, once a week or fortnight, as the symptoms may indicate. Tincture of scullcap or nerve powder may be used to strengthen the nervous system, and proper tonics should be used to assist the digestive powers ; light and nourishing food should be used, avoiding all fat and animal substances.



In cases of acute inflammation of the liver, a tea of composition, cayenne and bayberry, may be taken, to which may be added a small portion of tincture of lobelia ; if the patient be in bed, heated applications may be placed at the feet, and when he is sufficiently prepared for its reception, a full course of medicine should be given, and repeated as often as the urgency of the symptoms seem to require, and the intermediate treatment regulated as directed above ; great care should be taken to keep up the strength of the patient.

### INFLAMMATION OF THE BOWELS.

Inflammation of the bowels is similar to that of the stomach. It is, however, attended with more acute pain, and is considered very dangerous, and if not arrested, soon terminates in death.

*Symptoms.* At the commencement of this disease, there is felt a sharp pain in the bowels, which is increased by pressure ; a chill sometimes invades the body, succeeded by a burning pain near the navel, short and laborious breathing, great thirst, generally nausea, and often vomiting ; the tongue is usually covered through the centre with a brown coat, pulse quick, small and hard. As the disease progresses, the whole region of the abdomen becomes extremely painful, and appears as if drawn together in a knot ; in this case the urine is passed with great difficulty and pain.

*Treatment.* In the treatment of this disease, a free use should be made of stimulating enemata, and the bowels bathed with rheumatic drops, or anti-spasmodic tincture ; heated applications should be placed at the feet. A flannel may be wet in a preparation made of one part of the drops, and one part of vinegar, and applied to the bowels as warm as the patient can bear it. After a thorough movement of the bowels, a full course of medicine should be given, and repeated according to the urgency of the case.



Between the courses, cayenne, diaphoretic, or any of the stimulating and nervine teas, should be freely used to keep up a lively perspiration ; the enemata should be continued, of which a good part should be slippery elm, and a suitable quantity of nerve powder. When the violence of the disease is checked, the patient should use, during recovery, mucilages and mild tonics, or any of the restorative medicines. Care should be taken not to over act, as in this complaint the patient is exceedingly liable to a relapse, even from the slightest causes. The patient should confine himself to a light and nourishing diet, the feet kept warm, and exposure to cold or dampness avoided.

#### INFLAMMATION OF THE KIDNEYS.

Of this disease Dr. Buchan speaks of two kinds ; one arising from a general cause of inflammation, and seated principally in the external membrane of the kidneys ; the other occasioned by the stimulus of the gravel or stone in the pelvis or cavity of it, and the inflammation occupying the internal part. It is the first that is here noticed ; the other will be referred to under the head of Stone or Gravel.

It may be produced by wounds or bruises of the kidneys, strains or wrenches of the back, lifting heavy weights, violent motion, intemperate habits, the use of spirits of turpentine, tincture of cantharides, and other mineral and vegetable poisons ; gravel or stone in the pelvis or cavity of the kidneys, also produces inflammation.

*Symptoms.* In this disease there is a sharp pain in the region of the kidneys, invading the small of the back, and a frequent desire to pass water, which is of a red color and generally scanty. If both kidneys become inflamed, the urine is entirely suppressed, and the patient feels great uneasiness when he endeavors to walk or sit upright. It is also attended with vomiting, costiveness, difficulty of breathing, and cold extremities.



*Treatment.* In the treatment of this disease, it is important to arrest the inflammation of the kidney, and apply proper remedies for its removal, at an early a period as possible, for if neglected or mismanaged it often proves fatal. In the first attack of this disease, diaphoretic and diuretic teas should be given ; the diuretic tea to be made by taking juniper berries, poplar, princes' pine, cleavers and wintergreen, each a small handful, to be steeped in a pint of boiling water, and should be freely used ; a tea made by taking a teaspoonful of fine elm, and a teaspoonful of gum Arabic, and steeping in two teacupsful of water ; two table spoonsful to be taken at a time, five or six times a day ; heated applications should be applied to the sides and feet. The back and side should be bathed with rheumatic drops or stimulating washes ; if the pain is severe, an Indian meal poultice, to which may be added a small quantity of slippery elm and ginger, should be applied over the region of the kidneys ; enemas should be used composed of slippery elm, composition, and nerve powder. After this treatment, if the violence of the symptoms do not abate, a full course of medicine should be given. Between the courses, the same treatment should be followed as directed above, During recovery, the spice bitters, restorative cordial, or any of the mild tonics should be moderately used. All possible care should be taken to prevent a relapse of the disease.

#### INFLAMMATION OF THE BLADDER.

Inflammation of the bladder may proceed from the same cause as that of the kidneys. It most commonly attacks aged people, and is usually brought on by exposure to cold, or a damp atmosphere, strains and over-exercise, or in consequence of inflammation of some of the adjacent parts, or it may arise from stone in the bladder.



*Symptoms.* The systems of this disease are similar to those of inflammation of the kidneys. It may be distinguished however, by a severe burning pain in the bladder ; the abdomen generally becomes swollen, with a frequent desire to pass urine, which discharges with great difficulty, and is generally scanty ; from being loaded with a mucus substance, it becomes thick, of a deep color, and very frequently tinged with blood. These symptoms are generally accompanied with fever, sickness and vomiting, great anxiety and restlessness, sometimes delirium, coldness of the extremities, and a cold clammy sweat ensues.

*Treatment.* In the treatment of this disease, the same course should be pursued, as recommended in inflammation of the kidneys. Instead of Indian meal poultice, burdock or mullen leaves may be applied to the abdomen, over the region of the bladder, or the fermentation of hops may be used, and the bowels bathed with rheumatic drops ; a free use must be made of the diuretic teas ; the stimulating enemata, in this case, should be freely used, as they have a powerful influence over the bladder ; a small portion of tincture of lobelia may be added to the enemata, not enough, however, to occasion distressing nausea. Heated applications should be continued at the feet, as the extremities are exceedingly liable to become cold, and great care should be taken to keep the patient's skin suitably moist.

#### ERYSIPELAS OR ST. ANTHONY'S FIRE.

St. Anthony's Fire is a disease known to most people, and may be brought on by sudden exposure to heat and cold, the use of unwholesome or indigestible food, living in cold and damp places, the application of blisters, mercurial ointments, and the like substances, that irritate the skin. It often affects the whole body, but most generally appears on the face, feet and legs. Children are liable to an attack of this disease, but it is more common among old people of sedentary habits.



*Symptoms.* In this disease a person may be attacked with a pain in the head and back, shivering and thirst, succeeded by flushes of heat, loss of appetite, occasionally sickness and vomiting, restlessness, and a burning sensation of the skin; it becomes inflamed in small spots, which gradually spread, and in some instances cover the entire surface. When the face is attacked, it swells and becomes inflamed, and is covered with red blotches; one or both of the eyes generally become closed, if the swelling or inflammation is not checked. There is often difficulty of breathing and swallowing; if the patient's nostrils and mouth become very dry, and the patient stupid and drowsy, there may be reason to suspect inflammation of the brain.

*Treatment.* In severe attacks of this disease, a course of medicine should be given, and repeated if necessary, at proper intervals. But in ordinary cases, it will be only necessary to keep a determination to the surface of the body. To effect this, we should give composition, cayenne, and bayberry tea, sufficiently to promote gentle perspiration. Enemas should be used sufficiently to keep a regular action of the bowels. In all cases, the sarsaparilla syrup should be taken twice a day, and the spice bitters once a day; also a tea may be made of cyprus and poplar barks, to which may be added a handful each of wintergreen and princes' pine.

If the surface should become inflamed, it should be bathed with a tea made of raspberry and witch hazle leaves, to which may be added a small portion of green lobelia; if this should not allay the inflammation, a poultice may be applied to the swelled parts; the slippery elm poultice may be used, to which a little ginger may be added, if it can be borne. At the renewal of each poultice, the inflamed or sore part should be thoroughly washed with a decoction of white ash bark, witch hazle, pond lilly, or any of the mild astringents. If the inflammation is in the face, or upper extremities, heated applications should be applied to the feet, and the stimu-



lating drinks should be freely used. In this disease the patient should avoid all food of an oily substance. During recovery, the patient should continue the use of the sarsaparilla syrup and spice bitters.

### QUINSY OR PUTRID SORE THROAT.

Inflammation of the throat is often brought on by sudden exposure to cold, obstructed perspiration, or by omitting some of the usual covering about the neck, and by riding or walking against the cold northerly winds, speaking loud and long, sitting in warm rooms, singing with violence, and going out into the cold without being suitably wrapped up, sitting with wet feet, or by an open window in a current of cold air, are all liable to bring on this disease.

*Symptoms.* Quinsy or inflammation of the throat generally comes on by a sense of fullness of the throat, swelling of the glands, dryness of the mouth and throat, difficulty of swallowing, laborious breathing, tongue swollen and covered with a white or dark coat, great hoarseness of the voice, and some degree of fever, and the pulse hard, full and frequent.

Putrid sore throat may be distinguished from the quinsy, by its commencing with chillness, vomiting, stiffness of the neck, and there may be seen in the mouth, dark looking ulcers. The more unfavorable symptoms, are an obstinate purging, extreme weakness, dimness of the sight, dark colored spots on the neck and face, frequent shiverings, with a weak, faltering pulse. If the eruption upon the skin suddenly disappears, or becomes of a livid color, with a discharge of blood from the nose or mouth, the danger is very great.

*Treatment.* In mild cases of this disease, a cure may be effected by the use of the diaphoretic and canker teas; gargles should be used, composed of one table spoonful of bayberry, half a teaspoonful of cay-



enne, to which may be added a small portion of marsh rosemary, steeped in half a pint of boiling water, and the throat gargled as often as it becomes dry and painful. The throat or neck should be bathed with rheumatic liniment, and a flannel wet with the rheumatic drops, and applied to the neck. If this treatment is not likely to effect a cure, no time should be lost in administering a thorough course of medicine, and repeat it at proper intervals, until the violence of the disease is subdued.

In case of putrid sore throat, it is generally necessary to administer a course of medicine at the commencement of the disease, and repeat it as often as the symptoms seem to indicate. The treatment between the courses to be used as directed above. If the patient's throat should become swollen so as to be unable to swallow, half a teaspoonful of the emetic powder may be added to the enemas, and repeated until vomiting is induced, and the throat and glands properly relaxed. All the teas and drinks should be used without the sediment.

Poultices are beneficial, if the throat is much ulcerated ; it may be composed of slippery elm and crackers, and made very stimulant by a plentiful use of ginger, and a small portion of cayenne ; this should be applied to the throat, and renewed as often as it becomes dry ; at the renewal of each poultice, the throat should be bathed with equal parts of rheumatic drops and vinegar, and applied as warm as the patient can bear it ; the throat should be rubbed with it two or three minutes. Care should be taken in this, as well as in all other putrid diseases, to guard against canker ; the internal heat should be kept up by the use of stimulants, sufficient to keep the skin suitably moist. During recovery, the patient should use proper tonics and restoratives to strengthen and invigorate the system.



## MUMPS.

This disease is contagious, and is mostly confined to children, and often prevails epidemically and generally the most in winter and spring. It commences with a pain and swelling of one or both sides of the neck, near the angle of the jaw; the tumor or swelling is moveable at first, but soon becomes hard, and diffused to a considerable extent; it generally increases until about the fourth day, when it gradually declines. In case the patient takes cold, the disease often becomes transferred to the breast of females, or the testicles of males, or it may become fixed in the head; in this case the swelling subsides, and fever increases, attended with delirium. These symptoms are often attended with fatal consequences, and great care should be taken to avoid exposure.

*Treatment.* In all cases of this disease, the patient should avoid exposure to cold, and keep the feet and limbs warm. But little more than this will be necessary in mild cases, except a free use of diaphoretic or composition tea, and occasionally to bathe the face and neck with rheumatic drops, pepper sauce, or tincture of cayenne, and the face and neck should be kept covered with a flannel wet with rheumatic drops.

If the symptoms should indicate a fever, or the swelling transferred to the parts which we have spoken of, a course of medicine should be given and repeated if necessary. The breast or testicles should be bathed three or four times a day, with a decoction of white ash bark, and elm poultices applied; if the parts should be painful, heated applications may be applied to them; proper attention should be paid to the bowels, and the recovery of the patient assisted by proper tonics.

## SCROFULA.

Scrofula or king's evil, consists of hard, indolent tumors, or swellings, in different parts of the body,



This disease is most common with children between three and seven years of age ; it may come on however, at any period before puberty ; it prevails in those climates where the atmosphere is cold and moist, the seasons and weather variable. Scrofula generally comes on during the winter or spring, and very often disappears or becomes much relieved during the summer. Children most liable to an attack of this disease, are those of a soft, fair skin, fine hair, and delicate complexion ; it sometimes, however, attacks those of a darker temperament. Children that have a tendency to rickets, which is marked by large joints, prominent forehead, and tumid or swelled abdomen, are frequently of a slow, scrofulous habit. Those who live in damp, uncomfortable dwellings, badly clothed, exposed to many privations, living on scanty and unwholesome food, deprived of exercise in the open air, and inattentive to cleanliness, are those that are most subject to this disease. Hence it is common in children who are confined in cotton factories, or other oily and dirty mills, where they are much confined, and breathe unwholesome air.

*Symptoms.* In the first appearance of this disease, there is commonly felt small tumors, or knots, under the skin ; they generally commence on the neck, and chin, or behind the ear, which gradually increase in size and number, and form large, hard tumors. In some cases the joints become affected ; in such cases, the swelling surrounds the joints, and impedes their motion. After a short time the tumors acquire a larger size, and the skin which covers them becomes more purple, livid, and inflamed, suppurates and breaks into little holes, from which a pus-like fluid, intermixed with curdy looking matter at first proceeds, which soon changes into a thin serous discharge.

The ulcers spread unequally, in various directions ; some of them heal, and other tumors form followed by ulcers. In this way the disease sometimes continues for a number of years, and at last the ulcers heal up,



leaving behind them disfiguring scars. Other parts of the body, likewise, are liable to scrofulous attacks, as the arm-pits, breasts, eyes, groins, hands and feet. The internal organs are not entirely exempt from it; the lungs, liver, and spleen, are often affected in scrofulous disease. Ulcers which break out on the feet and hands, swell, and attended with little or no redness, are of a scrofulous kind; they seldom discharge good matter, and are exceedingly difficult to cure. The white swelling of the joints are of this kind; they are with difficulty brought to suppuration, and when opened they only discharge a thin watery fluid. A very common symptom of scrofula, is a swelling of the upper lip and nose, and the toes or fingers, which continue swollen for a long time, without any degree of pain.

*Treatment.* In all scrofulous diseases, courses of medicine should be given and repeated once or twice a week, or as often as the urgency of the symptoms seem to require, as they will check the formation of tumors, purify the fluids, prevent suppuration, and excite the different organs to a healthy action, which will have a tendency to throw off the disease. Between the courses the canker and diaphoretic teas may be used; the spice bitters made laxative by the addition of one fourth of a teaspoonful of bitter root at a dose, may be taken once or twice a day, and the sarsaparilla syrup two or three times a day.

The tumors or swellings should be bathed with rheumatic drops, or stimulating washes and liniments. In severe cases, the vapor or warm baths are highly beneficial, and ought to be used as often as every other day, until the urgency of the symptoms are removed. If ulceration should take place, a poultice may be applied, composed of slippery elm, ginger, pond lilly, equal parts, and lobelia powder half a part; at the renewal of each poultice, the ulcers should be washed or bathed with an infusion of sumach, raspberry, or witch hazle leaves, with the addition of rheumatic drops, if it can



be borne ; the cavities and surface should be thoroughly bathed with these washes. When the inflammation subsides, and the ulcers have discharged sufficiently, they should be thoroughly cleansed, and the healing salve applied. Scrofulous persons, in their diet, should avoid fat meat, butter, tea, and coffee, as all mixtures of a similar kind, are injurious. If the above course be pursued, and the patient pays particular regard to his clothing, diet, exercise, and is careful to inhale pure air, scrofulous complaints in most, if not in all cases, might be removed. If the patient, however, should be living in a low, damp situation, he should be removed to one more elevated and airy.

#### WHITE SWELLINGS.

These swellings generally come upon the joints, and are called white swellings, on account of the skin not being materially altered. They frequently come upon the knees, ancles, wrists, or elbows, and is a distressing malady ; it occurs most frequently in scrofulous constitutions. It may be caused, however, by sprains, bruises, frequent exposure to wet and cold, and very often by the use of mercury.

*Symptoms.* At the commencement of this disease, there is a fullness at the depression of each side of the joint, which gradually spreads until the swelling surrounds or covers the joint. It soon becomes painful, and the patient is unable to bear his weight, or use the limb affected. If the disease is not arrested, suppuration takes place, and painful ulcers form about the joint. The health becomes impaired, the appetite poor, and the patient gets little or no sleep, profuse night sweats, and a copious diarrhea soon exhausts the patient.

*Treatment.* In the treatment of this disease, if the general health is impaired, courses of medicine should be administered at proper intervals, and the same treat-



ment may be pursued as recommended in scrofula. The poultices and bathings should be freely used. If this does not afford relief, the affected part may be steamed over a decoction, made in the following manner ; take of mayweed, wormwood, mullen, catnip, and hemlock leaves, each a double handful, boil in four quarts of water until the strength is extracted. Then place the affected part over the steam arising from the liquor ; it should be covered with a blanket so as to confine the vapor to the diseased part, and it should remain some ten or fifteen minutes ; a hot brick or stone may be put into the decoction, occasionally, to raise the steam if necessary.

After this the affected part should be bathed with stimulating washes, and a poultice applied, composed of catnip leaves, dandelion root, green lobelia, each a double handful, bruised fine, boiled in sweet milk, and thickened with equal parts of pulverized elm, and pond lilly root, to the proper consistence of a poultice, and applied about blood warm. The poultices should be renewed twice a day, and the steam once a day until suppuration takes place, and a free discharge of matter is effected, and inflammation subsides ; then the ulcers should be dressed with suitable liniments and salves.

#### HIP DISEASE.

This painful disease is most common to children under fourteen years of age, and frequently attacks persons of scrofulous habits ; it is caused by the use of mercury, severe labor while children are growing, or by strains, and the like injuries.

*Symptoms.* This disease, at first, attracts but little attention, and is only attended with a dull pain in the hip. As the disease advances, the socket or cavity which receives the head of the thigh bone, becomes affected and is exceedingly painful, which is increased by the slightest movement of the limb. If the inflammation is not



timely arrested, suppuration is liable to take place, and often causes a destruction of the bones and cartilages, which will terminate in death or an incurable lameness.

*Treatment.* In the treatment of this disease, the patient's system should be cleansed with a course of medicine and a healthy action kept up, by the use of spice bitters, diaphoretic and composition tea. If the case is an obstinate one, the courses of medicine should be repeated, once or twice a week. The affected part should be bathed several times a day, with stimulating liniment or rheumatic drops; a flannel may be wet with rheumatic drops and vinegar, warmed by the fire, and laid over the affected part. Vapor applied to the affected part will be found to be highly beneficial. Proper attention should be paid to the patient's diet; it should consist only of light and nourishing food, avoiding all oily and fat substances.

## BILES AND ABSCESSSES.

Biles are small painful tumors, common to any part of the body, and acutely tender to the touch; when suppurated, they have a hard core in the centre. They most generally afflict persons of a full habit; when this is the case, they should be put on low diet; they are sometimes met with in weak or debilitated persons.

Abscesses generally form on some external part of the body, which has previously been the seat of inflammation. When inflammation does occur, it would be better to remove it by proper remedies, before it causes suppuration, or an abscess is formed. But if suppuration cannot be prevented, we should endeavor to forward its progress by warm fomentations and poultices.

*Symptoms.* When inflammation terminates in abscesses, there is usually a sense of itching, dryness, increased heat of the parts, succeeded by small tumors or swellings, throbbing, and shooting pains are commonly



felt ; the pulse often becomes full, hard and quick, the skin hot and dry, with considerable thirst, and other feverish symptoms.

*Treatment.* At first we must endeavor, if possible, to put a stop to inflammation and prevent suppuration. If we cannot relieve inflammation, we should endeavor to promote suppuration, and get a discharge of matter as quick as possible. This may be done by using any of the poultices given under the head of scrofula, or white swellings ; if there should be feverish symptoms, a course of medicine may be given.

Biles are smaller and form nearer the surface, than abscesses, and the patient is often affected with several at once. In this case a free use should be made of spice bitters, and composition tea, to produce a healthy action in the system. Biles may be readily brought to a head, by the use of common poultices.

Carbuncles are a large species of biles, and should be treated in the same manner, ; they are of a purple color, and seldom rise but little above the skin.

## FELONS AND WHITLOWS.

Felons have their seat of inflammation near the bone, and generally make their appearance near the last joint of the finger. In some few cases, however, they have been known to come upon the toes.

Whitlows are distinguished from felons, by not being so deeply seated ; they form directly under the skin, and do not reach the bone. They often commence at the root of the finger nail, and extend nearly or quite around, and are commonly termed runrounds,

*Treatment.* Various experiments have been tried, and modes of treatment adopted for the cure of this painful disease. Deep incisions are made by some, with a lance or knife, or powerful caustics applied ; others shave the parts very close, and apply powerful salves or liniments.



But the best plan of treatment is, the early application of active poultices, such as Indian meal and flax seed, or Indian hemp root, bruised, boiled in milk, and applied warm ; or a poultice composed of equal parts of slippery elm and pond lilly, to which may be added one fourth part each, of ginger, and lobelia powder, and applied warm ; at the renewal of each poultice, the finger may be soaked in white lye. This will soften and relax the skin, and cause a more immediate suppuration ; in the mean time, the patient should drink freely of nervine and diaphoretic tea. These applications should be continued until it is brought to a head ; if it should continue too long, however, or be too painful, it may be lanced, and the same treatment pursued, until it becomes thoroughly cleansed, and then the healing salve applied.

Whitlows or runrounds should be treated in the same manner as felons ; it is not generally necessary, however, to lance them. The patient will often find much relief, by keeping his hand slung up, which will prevent a too free circulation of blood in the hand.

## WOUNDS.

Wounds are generally divided into four classes, according to the nature of the instrument with which they are inflicted, and the effect produced. They are included under the head of cuts, lacerations, punctures, and what is termed gunshot wounds. By cuts we mean wounds made with a knife, or any sharp instrument or edged tool ; they may be considered the most favorable kind of wounds.

*Cuts.* In light cuts, nothing more will be necessary but to bind it with a cloth or bandage, and occasionally wetting it with rheumatic drops, or some healing salve may be applied. If the wound, however, should be large, and much discharge of blood, it should be washed clean with cold water, and the edges of the wound



brought as near together as possible, and confined by strips of adhesive plaster, and bound up with suitable bandages, and occasionally wet with tincture of myrrh or water, to which may be added a small portion of rheumatic drops. If an artery should be wounded, it will generally be necessary to procure medical aid. When an artery is cut, the blood flows rapidly in jets, and always downward, and is of a bright red color. Blood that flows from the veins is of a dark color.

If large arteries are wounded so as to endanger the life of the patient, we should endeavor to stop the flow of blood, as much as possible, until aid can be procured. This may be done by placing some hard substance above the wound, directly over the artery, and tying a handkerchief around the limb so as to press the substance hard upon the artery. This should be drawn sufficiently tight to suppress the excessive flow of blood. The substance under the bandage should be moved until brought to bear directly upon the artery. A quantity of spider's web applied to wounds, rarely fails to prevent bleeding.

*Lacerated Wounds.* Lacerated wounds are those caused by a bruise, or where the flesh is torn ; they are far more difficult to heal than cuts. In lacerated wounds if there is any probability of the parts uniting again, we should replace them again in their natural situation, and sustain them with suitable plasters, or bandages ; but if there is no likelihood of the parts uniting again, the lacerated parts should be removed. If inflammation should arise, it should be diminished by the use of slippery elm poultices.

*Punctured Wounds* are those which are inflicted with pointed instruments, such as nails, gravers tools, or the thrust of a bayonet, sword, &c. These wounds generally affect, more or less, the nervous system, and are most always attended with more or less inflammation, which renders them exceedingly painful, and quite dangerous. To these wounds, there should be applied



Indian meal, or elm poultices, and renewed as often as they become dry ; at the renewal of each poultice, the inflamed parts should be bathed with tincture of myrrh, or rheumatic drops.

*Wounds inflicted with Fire Arms* depend very considerably upon the weight, bulk, and velocity of the substance impelled. A shot may pierce through and through, or it may lodge in some part, or large ones may take limbs entirely off. The danger of these wounds depend upon the amount of flesh torn, or lacerated, or a bone shattered, or wounding of a vessel, or the lodgment of substances in the body. Medical aid in these cases, will generally be necessary. But little is to be done however, except to extract the substance lodged in the flesh, and guard against inflammation, by the use of appropriate remedies. Nerve powder, or strong nervine tea should be given, to quiet the nervous system, and the diaphoretic tea sufficiently to keep the patient's skin moist.

The manner of dressing wounds should be according to their nature ; the treatment, however, is nearly the same ; to guard against inflammation, and if suppuration takes place they should be thoroughly cleansed with cleansing washes, and healing salves applied. Care should be taken of the patient's system, and proper action of the bowels kept up, with enemata, and the usual stimulants and tonics should be given to retain the patient's strength.

## SPRAINS AND BRUISES.

*Sprains* are caused by severe wrenches, or strains of the ancles, knees, wrists, or any of the joints, and are generally caused by a slip, sudden or violent exertion, in which the tendons or ligaments become injured. Sprains are commonly productive of painful inflammatory swellings ; we should endeavor to prevent the parts from swelling, and check the inflammatory ten-



dency. This end may be obtained by freely bathing the part with rheumatic drops, and a flannel wet in vinegar, to which may be added one fourth part of rheumatic drops, or a suitable quantity of cayenne, and applied to the swelling or inflamed part. These applications should be renewed as often as they become dry; the affected part should be kept still, and in such a position as to favor the flow of blood from the wound.

*Bruises* are caused by falls, or blows; the part affected generally turns dark, or of a purple color, or becomes inflamed, and frequently mortifies. If the injuries are not of a serious character, nothing more will be necessary than to occasionally bathe the bruised part, with rheumatic drops, vinegar and cayenne, rheumatic liniment, or tincture of myrrh.

But if the injuries should be severe, or any internal part injured, active means should be taken to guard against inflammation; composition, or diaphoretic tea should be given, sufficiently to produce perspiration, and the vapor bath given by means of the steam pipe, or by heated applications. Care should be taken to keep up an equal circulation in the patient's system, and prevent an undue proportion of blood being thrown upon the injured part; the same bathings should be used as recommended above.

An application may be made of hemlock or mullein leaves, bruised and wilted, to the affected part. If there should be much inflammation, the Indian meal or elm poultices should be applied. This treatment should be continued according to the judgment of the attendant, until relief is obtained. If the general system, however, should become affected, it will be necessary to give courses of medicine. Stimulating teas, and restorative medicines should be used, until a permanent cure is effected.



## BURNS, SCALDS, AND FREEZES.

*Burns* are wounds or injuries made from heated solids, as iron, fire, and the like solids, and frequently burn deep, and are attended with more or less danger.

*Scalds* are injuries which are inflicted by heated liquids and vapor, as water, oil, steam, and their danger depends upon the extent and location of the wound. Those inflicted upon the chest or abdomen, are attended with considerable danger, and are frequently obstinate and hard to cure.

*Symptoms.* The first effects of burns, are acute pain, inflammation of the skin, raising of the outer skin in one or more blisters, which immediately fill with a watery fluid. These appearances are according to the violence or extent of the burn. More severe burns, however, entirely destroy the skin, and burn deep into the flesh, or entirely destroy a muscle.

Scalds are generally more extensive, although not so deeply seated, as burns. In bad cases, inflammation is not merely local, but gives rise to general inflammation or fever. In this case, strong constitutional remedies should be used. In such cases, the patient is generally afflicted with great nervous irritation, violent trembling, faintness, and sometimes vomiting.

Burns which only irritate the skin, and raise blisters without destroying it, are similar in their effects, to the substances used in medicine, for blisters, and rubefacients.

*Treatment.* On the first occurrence of burns or scalds, cold applications should be immediately applied ; if on a limb, it should be immersed in cold water, and withdrawn occasionally ; if the burning sensation should come on again, it should be replaced ; this, if timely applied, will frequently prevent blistering. If the scald or burn should be on any part of the body, where water cannot be applied in this way, cloths should be wet in



cold water and laid upon the affected part, and renewed as often as they become warm, or the affected part becomes painful. In the mean time, the patient should drink freely of stimulating or composition tea ; this part of the treatment should never be dispensed with, and may be pursued until the smarting or pain ceases. The healing salves and ointments should then be applied ; if there should be much inflammation, the slippery elm poultice may be applied, and continued until it is reduced ; the salves may then be applied, which will generally affect a cure.

If the wounds are deep, and the part become raw, a poultice may be applied, composed of slippery elm and Indian meal, to which may be added a small quantity of emetic powder, and the surface of the poultice spread over with fir balsam. The poultice should be renewed as often as it becomes dry, and continued until the inflammation subsides, and then healing applications may be applied. At the renewal of each poultice, the sore may be washed with an infusion made of witch hazle and raspberry leaves, or with weak soap suds. If the injury should be near the vitals, as on the chest or abdomen, or in case the system becomes deranged, he should take a course of medicine, and make a free use of stimulating drinks.

*Freezes.* To frozen limbs cold water should be applied, in the same manner as recommended above for burns, until the frost is extracted. Instead of the application of poultices, the parts should be bathed with rheumatic drops, tincture of cayenne, or anti-spasmodic tincture. If inflammation should arise, the slippery elm poultice may be applied, made somewhat stimulating with ginger, or rheumatic drops. If fever or other unfavorable symptoms appear, a course of medicine should be given.

## CANCER.

Cancer is a disease of much importance. When we consider the dreadful sufferings which attend these



distressing ulcers, and that the female sex are its most frequent victims, we are prompted to devise some adequate means for its removal. This, above all other disorders, has called forth numerous impostors, who by their extravagant prices, have unblushingly imposed upon its victims, some with their powerful caustics, others with their lance and knife, have attempted to extract the dreaded monster from the system, but all to little or no purpose.

As to the actual cause of a cancer, physiologists disagree. It is apparent, however, that people of a gross habit are most liable to this disease, and persons who make a continual use of stays or corsets, which compress their breasts, and occasions injury ; it may also be occasioned by a continual use of indigestible food of an acid nature, barrenness, indolence, colds, internal injuries, or it may occur from suspended evacuations.

*Symptoms.* The organs most frequently attacked, in females, are the breasts ; it frequently, however, attacks other parts, as the lips, face, arms, and occasionally other parts of the body. It generally begins with a small spot, which spreads in every direction : its progress is more or less quick, in different cases ; as the swelling increases, it becomes knotted and uneven on its surface, and extends itself to the neighboring parts, and sends off branches or limbs, resembling spider's legs, or claws of crabs. The skin at first is red, afterwards purple, blueish, or livid, and at last turns brown or black. When it breaks, it discharges a thick acrimonious matter, streaked with blood.

The patient, at the first commencement of a cancerous tumor, feels a sense of heat, with a twinging, gnawing, or shooting pain, in the affected part ; as the tumor advances, the pain becomes more fixed and severe. As the cancer becomes ulcerated, the patient's strength is exhausted ; if its progress is not arrested, the system becomes deranged, and wasted ; fainting and convulsions follow, which generally ends the life of the patient.



*Treatment.* At the first commencement of a cancer, active means should be taken to produce a healthy action in the system, as they generally proceed from a constitutional derangement, and cannot be cured until the general health is restored. This end may be obtained by giving a thorough course of medicine, and repeating if circumstances should require it. Between the courses the patient should drink cayenne, bayberry, or composition teas, and also should use the spice bitters once a day, and the sarsaparilla syrup twice a day. If a tumor begins to form, and is supposed to be a cancer, immediate application should be made of the elm or Indian meal poultice, to which may be added one fourth each of cayenne and emetic powder, and wet with rheumatic drops. This is to be worn continually, and renewed as often as it becomes dry, until the tumor disappears or ulcerates. At the renewal of each poultice, the cancer should be bathed with equal parts of water and rheumatic drops.

If the cancer should proceed to ulcerate, the extract of clover, or cancer plaster, spread on a thin, soft substance, may be applied, and renewed every, or every other day, as the circumstances may require ; the sore should be washed every day with a decoction, made of pond lilly, witch hazle, and bayberry or white ash bark. When the inflamed or hard part is sufficiently removed, the sores should be thoroughly cleansed with slippery elm poultices, and the healing salves applied to effect a cure. The patient in the mean time, should use the above stimulants and tonics, and enemas to evacuate the bowels. In severe cases, it will be necessary for the patient to take a course of medicine every week or fortnight, to regulate the general system, and guard against canker, which always attends, more or less, this form of disease. The patient should pay strict attention to his diet, and confine himself mostly to vegetable substances, and partake of those sparingly, avoiding tea, coffee, butter, fat meat, or any substance hard of digestion.



## IFFLUENZA.

This complaint is generally caused by checked perspiration, causing more or less inflammation of the wind-pipe, bronchia, throat and nostrils, too sudden exposure to cold, when the body is heated, or in a state of perspiration, or sitting in cool apartments, wearing lighter dress than usual, and this during the summer as well as in the winter.

*Symptoms.* Influenza is characterized by a sense of fullness and pain over the eyes, frequent sneezing, stuffing of the nose, and difficulty of breathing through the nostrils, a watery discharge from the nose and eyes, loss of appetite, hoarseness, difficulty of breathing, hot and dry skin, increase of thirst, soreness of the throat, quick, hard pulse, with fever, hard, dry cough, with expectoration of mucus at first, but generally becomes thicker, and is raised with less violent coughing.

*Treatment.* In the treatment of influenza, little more need be done, than to make a free use of the diaphoretic, or composition tea, and put the feet into warm water, to cause perspiration, and avoid exposure. But in severe cases, where the skin is hot and dry, quick, hard pulse, difficulty of breathing, pain in the head, and soreness of the throat, a full course of medicine should be given, with other appropriate remedies, and repeat if the violence of the disease should require it. The stimulating enemas should be used, which will greatly assist in the cure of this disease.

If the cough should be severe or troublesome, the cough balsam, or any of the cough preparations, should be used to promote an easy expectoration. Between and after the courses of medicine, the composition, or any of the stimulating teas, should be used, to keep up a gentle perspiration. During recovery, the mild tonics or restorative medicines should be used, and avoid a sudden exposure to cold air; a strict attention should also be paid to diet.



## COUGHS.

A cough is generally the result or effect of a cold which has been neglected or improperly treated. When improperly treated, it may terminate in consumption, or some other difficulty ; or it may proceed from various other difficulties, such as compressing the chest by tight lacing, which produces a weak state of the lungs, irritation and inflammation, and is always attended with more or less cough, accompanied with expectoration of matter. A severe cough is often attended with pain in the chest, side and head, difficulty of breathing, soreness of the throat, loss of appetite, debility, &c.

*Treatment.* In ordinary cases of cough, the composition tea, with a small quantity of tincture of lobelia added to it, should be freely used, as it will greatly assist in perfecting a cure. The cough balsam, also, should be used several times a day, as it will loosen and cause an easy expectoration of matter from the lungs, which is of great importance in the cure of this complaint.

In severe cases of cough, it will be necessary to administer a course of medicine, and enemata to evacuate the bowels, followed with the use of the cough mixtures, such as cough balsam, and cough powder, or a stomach pill may be taken once or twice a day. In case of debility, and loss of appetite, the spice bitters may be taken two or three times a day. The patient's diet should be of a light and nourishing kind, avoiding all oily or greasy substances.

## CROUP,

This is a disease peculiar to children, and is an inflammatory affection of the mucus membrane, lining the windpipe, which frequently extends to the air passages of the lungs. It is very common upon the sea coasts, and in low marshy districts, and prevails the most in



cold and wet seasons, and in the spring and fall. Children of weak lungs and lax habit, are most liable to this disease. In case children are attacked the second time, it frequently proves fatal.

Children that live in damp houses, wear thin shoes, wet or thin clothes, or are much exposed to dampness, or cold easterly winds through the day, or any thing that obstructs perspiration, are liable to the croup.

*Symptoms.* In mild cases of this disease, the patient is affected with hoarseness, and a harsh cough, with other characteristics of a severe cold, and experiences alternate sensations of heat and cold, lassitude, and an inclination to sleep; the eyes are somewhat suffused and heavy, and the cough has a peculiar shrill sound, which in the course of a day or two, becomes more violent and troublesome, loud and shrill, and the face becomes flushed and swelled. If the disease is not arrested, it soon advances to all the aggravating symptoms that characterize the croup.

More severe attacks, however, generally come on during the night; the child goes to bed somewhat unwell, perhaps with a slight fever, goes quietly to sleep, but during his sleep respiration becomes difficult, loud and laborious; he is awoke by a fit of coughing, which has a peculiar sound, his voice hoarse, face red, and skin very hot. The agitation continues, and he complains of a constriction of the throat; as the disease advances, the respiration becomes wheezing, and more hoarse, great oppression, with a sensation of suffocation, or of strangulation; the patient's eyes have a wild look, his face swollen, pulse hard and frequent, voice hoarse, the cough convulsive, and of a loud croacking sound.

If the disease advances, it is soon characterized by the presence of all the signs of approaching death. The paroxysms have between them, but a few moments of an imperfect remission; the voice is nearly or quite lost, the respiration convulsive and extremely difficult,



and a frightful suffocation every moment threatens the life of the little sufferer ; his eyes are without lustre, face covered with a cold clammy sweat, and becomes pale and livid, his system weak and exhausted, his agitation in a measure abates, and he has little or no cough ; the expectoration is almost entirely arrested, pulse scarcely perceivable, irregular and intermitting, and most of the animal functions appear to be exhausted. The intellectual faculties, however, are frequently preserved even to the last moment, and death finally comes to terminate the painful scene. The patient sometimes dies in the greatest agony ; at others he sinks without a struggle. Croup is a dangerous disease, and sometimes mild cases become suddenly aggravating, and soon ends the life of the patient. If children should have any of the common symptoms of croup, especially if they are subject to the complaint, should never be left alone, or without the attendance of some person capable of taking care of them, and applying suitable remedies in case of an attack ; many instances have occurred, where children have been lost for the want of timely remedies, or in consequence of parents being absent.

*Treatment.* In mild cases of croup, a free use should be made of diaphoretic tea, and heated applications applied to the feet, stimulating enemas given to evacuate the bowels, and half a teaspoonful of tincture of lobelia should be given at a dose, and repeated until vomiting is induced ; pennyroyal and composition tea should be drank freely, or if the attack should be of a serious character, a thorough course of medicine should be given.

In severe cases, it is always necessary to use active means, in order to remove the disease. The following is a case that I had in my own family, of a child about four years old ; the disease was so far advanced before any medicine was given, that it became affected with spasms or fits. I commenced by taking two teaspoons-



ful of tincture of lobelia, two teaspoonsful of rheumatic drops, four teaspoonsful of water, sweetened to null the pungency, and poured a teaspoonful at a time into the child's mouth, between his teeth, his jaws being closed, repeating it every minute or two ; this brought him out of his fit, and then heated applications were placed at his feet, followed with a free use of pennyroyal, diaphoretic and composition teas ; onion drafts were applied to the feet and neck.

In the meantime active means were taken to produce vomiting ; this however, was not easily affected ; a teaspoonful of lobelia seed was mixed in a tea cup of warm water, and given at four different times, at intervals of ten minutes ; this however, did not produce vomiting ; the second teaspoonful was mixed and administered in the same manner ; the third and part of the fourth teaspoonsful was administered before vomiting was produced ; the case was a very obstinate one ; it seemed every moment as though the sufferer would be overcome with strangulation.

Stimulating enemata were given, and every means used to relax and free the system ; this however, did not relieve the breathing, which continued loud and laborious, and it was only by continuing the emetics, and other active means, that the disease was subdued. Lobelia was continued sufficient to produce vomiting once in half, or three-quarters of an hour ; heated applications were placed at the feet and sides, and stimulating drinks given sufficient to produce a copious sweat ; this course was pursued until the sharp whistling sound abated, and respiration became more easy. Stimulating drinks were given less frequent, and other active means reduced, and the patient's system permitted to cool gradually, as it would be liable to a relapse, if cooled suddenly. In five or six hours after I commenced giving the medicine the difficulty was removed, and the patient easy. Some unfavorable symptoms, however, returned the next day, and I gave him a course of medicine, which



entirely conquered the disease ; by giving the usual tonic medicines, in four or five days the child was well and able to attend school.

Another case came under my care, in which the child's system was so much convulsed, that his jaws became firmly set, and the inflammation was so great that the glands and passages of the throat became so much swollen, that medicine could not be administered in the usual way. In this case I administered an emetic by adding the lobelia to a suitable quantity of diaphoretic tea, and gave it by way of an enema. A suitable quantity of anti-spasmodic tincture, however, is preferable, provided it is at hand. This, in five or ten minutes, relaxed the system ; after the first vomiting, medicine could be administered in the usual manner. By pursuing the same course as given above, the difficulty was soon removed, and the child restored to health. Numerous severe cases have been cured by similar treatment, while ipecac, antimony, squills, hive syrup, castor oil, and the like remedies often fail to effect a cure.

I have spared room to give these cases, only, believing that they were more severe ones, than are generally cured, and think that it will be some guide to those who have to treat this distressing complaint. In severe cases, there should be no cessation of effort, until the laborious breathing, and the shrill whistling sound are broken up ; the longer it continues, the harder it will be to break it up. Many other things, however, are recommended by different authors, in the treatment of croup, such as butter and honey, steeped together ; a tea made of seneca snake root ; also of common mullen root ; hive syrup ; tincture of lobelia added to composition ; onion syrup ; the two last are excellent articles in mild cases ; none of the medicines, however, will so effectually remove the disease, as a thorough course of medicine.



## ASTHMA.

Asthma is known by a quick, laborious breathing, which is generally performed with a kind of wheezing noise. Sometimes the difficulty of breathing is so great, that the patient is obliged to keep in an erect posture ; otherwise he is in danger of being suffocated. It is attended with a frequent, difficult and short respiration, together with a tightness across the breast, and a cough attended with such a peculiar crackling noise, somewhat similar to wheezing, that a person who has seen several patients with this complaint, will readily recognize it. When the disease is attended with an accumulation and discharge of humors from the lungs, it is called the humid ; but when it is unaccompanied by any expectoration, it is known by the name of the dry or spasmodic asthma. A fit or paroxysm of the asthma, generally happens after a person has been exposed to cold easterly winds, or has been abroad in thick foggy weather, or gets wet, or continued long in damp places. The wheezing sound which accompanies the breathing, frequently occurs among children, and is generally called phthisic.

*Treatment.* In ordinary attacks of asthma, persons will generally find relief by taking one or two teaspoonsful of tincture of lobelia alone, or in a tea of composition, and the patient is often enabled to breathe freely in a few minutes. Where the symptoms are urgent, lobelia should be employed in a sufficient quantity to operate as an emetic, for the paroxysm is generally preceded by an extremely disordered state of the stomach ; if constipation of the bowels exist, a moderate dose of bilious pills will be beneficial.

Lobelia appears to act as an anti-spasmodic and expectorant ; if the patient is fearful of an attack of the asthma during the night, he should take two or three stomach pills, on going to bed, and heated applications placed at the feet. The diaphoretic tea should be drunk during the day, sufficient to keep the system warm, and



in a gentle perspiration ; the patient must exercise in the open air, dress warm, wearing flannel next to the skin, using the cough mixtures, and by paying particular attention to his diet, will generally obtain relief. A young lady called on me, who was severely afflicted with asthma, and had taken expectorant balsam, and the like remedies, and continued to grow worse. I gave her vegetable composition, and tincture of lobelia, which effected a cure in three days. I have known severe cases to be cured by a tea being made of the emetic herb alone.

### CONSUMPTION.

Pulmonary consumption is characterized by a wasting of the whole body, caused by the formation of ulcers, tubercles, or contraction and decay of the lungs. Women it is said are more subject to this disease than men. It is most frequently met with in the circles of gaiety, fashions, and folly, and generally attacks persons between the ages of fourteen and thirty. Those of a slender make, long necks, high shoulders, and flat breasts, are most liable to its attacks. Females between the ages of forty and fifty, are frequently attacked with it. It may be caused also, by inflammation, or bleeding from the lungs, scrofula, small pox, measles, or by a severe cold if it is not timely removed, bad air, inhaling the fumes of metals and gases, the use of arsenic or mercury as a medicine, going with wet feet, tight lacing, or by wearing corsets so as to compress the chest, being out at night with thin dresses, lying in damp beds, and the application of cold to the body sufficient to produce a sudden check of perspiration, are exceedingly liable to bring on this disease.

*Symptoms.* In the early stages of pulmonary consumption, the patient is affected with a dry hacking cough, and supposes he has a cold ; the cough is increased by exposure to cold or variable weather, and



the patient complains of an unusual degree of heat, a pain or oppression of the chest is felt, especially after exercise, or taking a deep and full respiration, and is increased by coughing; his appetite is poor, and his thirst great, spittle of a saltish taste, and frequently mixed with blood, the breathing is rendered difficult by unusual exercise, or bodily motion; there is generally a quick, soft, small pulse, but sometimes, however, it is rather full and hard; these are the common symptoms that characterize the commencement of consumption.

As the disease advances, the patient's tongue and lips are unusually red, and his countenance presents a peculiar hollow and loathsome or ghastly appearance; he is troubled with cold sweats during the night, which exhausts and debilitates the system, and emaciation generally increases; there is a burning heat in the palms of the hands, and soles of the feet, and the face is generally quite flush after eating; the patient raises a thick purulent matter, and an acute pain is felt in the breast and side, swelling of the feet and legs, total loss of strength, eyes are sunken and remarkably bright and expressive, difficulty of swallowing, breathing quick and short, and the body wasted to a mere skeleton, and extremities become cold. When these symptoms are present, the patient may be considered near the approach of death, although the patient himself, may not believe that he is so near his end. Such is the usual progress of this disease, and if not early checked, it sets all medicines at defiance.

*Treatment.* At the first attack of consumption, if the patient lives in a city where the air is impure, or in low marshy districts, where the atmosphere is loaded with moisture, he should be removed to a high country situation, where the air is pure and free, and avoid every thing which tends to irritate the system, more especially the respirative organs; great attention should be paid to the perspirative functions. The patient should take



proper exercise in the open air, and should in all cases wear flannel next to the skin, and otherwise protect himself by proper clothing, against the changes of weather; and his diet ought to be calculated to lessen the acrimonious humors, and to nourish and support the system, and it should be easy of digestion, consisting chiefly of vegetable substances and milk. Milk, says Dr. Buchan, is more valuable in this disease, than the whole materia medica.

Patients in early stages of consumption, before the system become weakened, will be benefited by gentle exercise in the open air, when it is mild and uniform; it tends to invigorate the system, and lessen its morbid irritability. The best mode of taking exercise, is by riding on horse back, as this gives the body considerable motion, without much fatigue; those who are too weak to take this kind of exercise, a carriage must be made use of.

During the above treatment, if the cough is troublesome, he should make use of the cough balsam; the diaphoretic tea made weak is also beneficial; if there is constriction or tightness of the lungs, one or two of the stomach pills may be taken daily, and the spice bitters and composition may be taken to strengthen and invigorate the system. The warm bath should be used every other day, followed with friction by the flesh brush or flannel, and care should be taken not to expose the patient to the cold air. If he should be too weak, the hand bath may be used, by means of a coarse towel wet in warm water, and the surface thoroughly rubbed. Courses of medicine, however, are the most to be relied upon in the treatment of this disease, and upon which a radical cure depends. Lobelia given in small doses has been found to be beneficial. The above treatment should be continued, together with the courses of medicine. Between the courses, care should be taken to keep up the strength of the patient; the usual tonics and soothing medicines should be prudently used. By the early adoption of the above treatment, and by



observing the usual precautions necessary in the treatment of disease, a cure may generally be effected, or at least, a consumptive patient may enjoy a comfortable share of health.

## COLIC.

Colics are variously denominated, according to their causes, and are generally divided into four classes, and treated according to the severity of the different cases.

*Colic of Indigestion*, is that produced by articles of food which are taken to an excess, whereby the stomach is loaded beyond what it should be, which deters its healthy performance, or it may be produced by eating indigestible food, or by deleterious substances.

This is generally removed, by giving an emetic to cleanse the stomach of its offensive matter, and by giving laxative and stimulating medicines to produce a healthy action of the bowels; a free use should be made of the stimulating enemas.

*Flatulent or Wind Colic*, is caused by an accumulation of wind in the bowels, attended with a severe pain and griping in the region of the navel. The pain generally comes on in paroxysms, followed by intervals of ease or rest.

In this form of colic, a cure may generally be effected with a free use of the diaphoretic tea, to which may be added half a teaspoonful of white root at a dose; the stimulating enemas also, may be used, and heated applications placed at the feet. If this does not effect a cure, a course of medicine should be given.

*Painter's Colic*, is a disease peculiar to people who work among paints, such as grinding white lead, painting ships, houses, &c., inhaling gas into the system, which acts as a poison and in time produces colic. The patient at first is affected with constipation of the bowels, foul tongue, bitter taste in the mouth, sense of



weight at the pit of the stomach and abdomen. The pain at first is dull and remitting, but as the disease progresses, the pain becomes more violent and seated at the pit of the stomach; as it increases in violence, however, it frequently extends to the navel, back, loins, bladder, and rectum. In severe cases, it often shoots with great violence to each side of the patient, as though something was piercing or cutting, and the parts become sore.

In this disease, active means must be taken to cleanse and free the system of its offending cause. Thorough courses of medicine should be given, and repeated, until the violence of the disease is overcome, and other treatment as given below in bilious colic.

*Bilious Colic*, is a disease that frequently occurs in the summer and autumn, and prevails considerably in the Southern and Middle States. It is a febrile affection, and is attended with an acute pain about the region of the naval; the patient complains of great thirst, and is affected with nausea and vomiting bilious matter, which is of a yellowish color, and is brought on by eating excessively of unripe fruits, lobsters and round clams, drinking of wines, beers, and soda waters.

In this disease, there is a violent irritation of the bowels, which throws them into a state of spasmodic contraction, caused by the vitiated secretion poured into them from the liver, and surrounding glands.

*Treatment.* In the treatment of bilious colic, a thorough course of medicine should be immediately resorted to; stimulating enemata should be given, to which may be added a teaspoonful of tincture of lobelia. Stimulating teas must be used, and a flannel wet in equal parts of rheumatic drops and vinegar, heated and applied as warm as the patient can bear it. The vapor bath should be given by means of the steam pipe, or by heated applications applied to the sides and feet. After which a course of medicine should be given, and diaphoretic and composition teas, and rheumatic drops should be freely used.



This course should be repeated and continued until the pain abates, and the disease is overcome. After the first course of medicine, if a movement of the bowels is not produced, a teaspoonful of mandrake may be given. In this, as well as all other acute diseases, a cure depends upon the perseverance of proper treatment. After the disease is overcome, the patient's system should be braced up by the usual tonics.

### CHOLERA MORBUS.

In cases of cholera morbus, the patient is suddenly attacked with violent vomiting and purging of bilious matter. It frequently occurs in hot climates at all seasons of the year; but in cold climates, it is most frequent in summer and autumn, arising from indigestible food, and the use of unripe fruit, copious draughts of cold water, and the like injurious substances.

*Symptoms.* This disease comes on with great oppression in the region of the stomach, severe pain in the bowels, followed by nausea or vomiting, and purging of a green, yellowish, or black colored bilious matter, with great prostration, intense thirst, a quick unequal pulse, and frequently with an acute pain about the region of the navel; the discharges are thin and watery. If the disease is not checked, the patient becomes exhausted, the extremities cold, the legs and abdominal muscles cramped, and are frequently covered with a clammy sweat; violent hiccuping, fainting and convulsions, are the signs of approaching death, which frequently takes place in twenty-four hours from the commencement of the disease, and often in much less time.

*Treatment.* In the early stage of this disease, active means should be taken to check the vomiting and purging, and turn the determining powers to the surface, and re-establish the circulation. Bayberry and composition teas may be freely given, stimulating enemata



used, and heated applications applied to the feet ; the bowels should be bathed with rheumatic drops, or pepper tea, and a flannel wet with the same and applied warm. This may be followed by the vapor bath, a free use of the stimulating tea, and a thorough course of medicine, which will generally check the vomiting and purging ; after which the patient should be kept in a gentle perspiration for several hours. The spice biters, or any of the usual tonics, may be given to keep up the strength of the patient, and improve the digestive organs. During this treatment, the dysentery cordial, with the addition of a teaspoonful of rheumatic drops, to a teacupful of the cordial, may be used with much advantage. If the purging is severe, a decoction of fleabane, also, may be used ; during recovery, the patient should pay strict attention to his diet, avoiding all solid and indigestible food, using those articles only which are light and of a soothing nature.

#### CHOLERA.

Spasmodic or Asiatic Cholera, is a fatal disease which has slain its thousands, and is supposed to be very contagious ; we think, however, very much depends upon the state of the system, and the fears or alarms of those people that are exposed, or are obliged to witness its work of mortality.

Cholera has usually proved most fatal in large cities, towns, and villages, situated in low, marshy districts, with narrow, dirty streets, impure air, and the want of cleanliness. It most frequently attacks the vicious and intemperate, and those who reside in low, damp, filthy, houses and cellars. It sometimes, however, attacks persons in easy circumstances, caused by intemperance in eating or drinking, excessive use of intoxicating drinks, exposure to cold or dampness, indigestible food, debilitated constitutions, broken down by the use of poisonous medicines in previous disease.



*Symptoms.* This disease is usually divided into two stages, the premonitory and the collapsed. The premonitory symptoms are attended with looseness of the bowels ; the discharges are frequent and copious, slimy, and usually thin, attended with a severe pain in the intestines, dizziness in the head, and sickness at the stomach. These symptoms are common to a premonitory attack of the cholera.

In a collapsed stage, it frequently comes on so sudden that it prostrates the person to the earth ; he is seized with spasmodic twitchings of the fingers and toes, and the blood frequently settles under the nails ; coldness of the extremities, which gradually extends to the body, sickness, or burning pain in the stomach, nausea and vomiting, violent cramps or spasms, great thirst, anxiety, oppression, and distortion of the features. If the disease is not speedily removed, a universal spasm puts a period to the agonies of the unhappy sufferer.

*Treatment.* In this disease we should endeavor to re-establish the circulation ; this may be effected by administering the vapor bath, and making a free use of the diaphoretic tea ; the body and extremities should be rubbed briskly with tincture of cayenne, or some other stimulating wash, and heated applications applied to the sides and feet. This will restore warmth and action to the surface of the body, equalize circulation, and take off the determination of the blood to the bowels, which will have a tendency to check the watery discharges from them, which is of much importance in the cure of this distressing malady. The most powerful stimulants must be given ; a tea of bayberry and cayenne, with the addition of tincture of scullcap or nerve powder, given freely. If the patient is much prostrated, we should give but a table spoonful of the tea at a time, and repeat as often as every two or three minutes, or oftener, as the case demands ; stimulating enemas must be administered frequently ; they will warm the



system, control the diarrhea, and determine the blood to the surface. Tincture of myrrh, bayberry and dysentery cordial, with the addition of a teaspoonful of rheumatic drops at a dose, and many other astringent articles are highly beneficial.

This treatment should be followed with a thorough course of medicine, and repeated at proper intervals, until the violence of the disease is checked. Between the courses, fleabane tea should be freely drank.

In the collapsed stage, active means should be employed to invigorate the system, and restore the circulation; the anti-spasmodic tincture should immediately be given. Tincture of cayenne, rheumatic drops, and stimulating tea, should be freely used; a teaspoonful of anti-spasmodic tincture added to the enemas, should be administered as soon as possible, and continued until vomiting is induced. In the mean time, heated applications should be applied to the sides and feet, to produce a profuse perspiration. If this treatment is sufficiently persevered in, it will generally effect a cure. During recovery, the patient should observe the usual precautions, in order to prevent a relapse; the usual tonics and restoratives should be used, and his diet of a light and nourishing nature.

#### DIARRHEA AND DYSENTERY.

*Diarrhea* is a disease of frequent occurrence, and is attended with frequent and copious discharges from the bowels, of a thin, slimy fluid, which is of a brown or yellowish green color, and generally very offensive, and often mixed with particles of undigested food, accompanied with tenderness and griping pain in the bowels, and occasionally vomiting.

This disease may be caused by any thing which has a tendency to irritate the mucus membrane, of the intestinal canal, whether it be substances taken into the stomach, which passes into the intestines undigested,



or whether by checked perspiration, the fluids are thrown internally to the intestines, by which they become unnaturally excited.

*Dysentery.* This disease is of most frequent occurrence in autumn, or the latter part of summer, although it is met with, at other seasons of the year. It is most prevalent in warm climates, particularly during rainy seasons. It is frequently caused by an injudicious use of unripe fruit, indigestible food, exposure to dampness, and obstructed perspiration, which brings on inflammatory affections of the lining membrane of the large intestines, which produces frequent and painful discharges from the bowels. The stool is composed of a frothy or mucus fluid, streaked with blood. As the disease advances, the stool becomes more bloody, and other symptoms are present, which characterizes inflammation or fever ; if the discharges are not checked, it soon exhausts and reduces the patient.

*Treatment.* In mild cases of this disease, a cure may be effected by making a free use of dysentery cordial, bayberry and nervine teas, and rheumatic drops ; and a free use may be made of fleabane tea ; the enema used for piles, may be administered, and heated applications applied to the feet. If this does not arrest the discharges, or if an attack should be severe, a full course of medicine should be given, and repeated if necessary. A tea made of blackberry root, two parts beth root, hemlock and bayberry one part, steeped in a suitable quantity of water, and sweetened with loaf sugar ; a table spoonful of this may be given every two or three hours, as the severity of the case may be.

The above treatment should be followed up between the courses of medicine ; the enemas should be freely used, to which may be added a small portion of tincture of lobelia ; they should be strained, or the sediment will occasion pain. If there is much pressure or soreness of the bowels, they should be bathed with rheumatic



drops, and a flannel wet with the same, warmed, and spread over the abdomen, and the enemata rendered quite mucilage with slippery elm. Stimulating teas and heated applications should be continued sufficiently to keep the patient in a gentle perspiration. The above treatment should be continued until the disease is overcome. Particular attention should be paid to the patient's diet until a permanent cure is effected.

*Diarrhea* may be treated in the same manner as is recommended in mild cases of dysentery : it will not generally be necessary to administer a full course of medicine. If the general system should become deranged, however, a course of medicine may be given.

### DROPSY.

Dropsy is caused by an accumulation of watery fluid, in any part of the body. It is distinguished by different names, according to the part affected. The fluids are mostly contained in the cellular membrane, caused by a weakness of the absorbent vessels, which become unable to take up the fluids, and discharge them from the system by its natural evacuations. It frequently attacks the thorax, and is called hydrothorax, or dropsy of the chest. When the cavity of the abdomen is affected, it is called ascites, or dropsy of the abdomen.

Dropsy of most common occurrence, is a general affection of the cellular membrane, which commences by a swelling of the feet and ancles, towards night, which at first, disappears by morning ; the swelling gradually ascends to the trunk of the body, and as it advances, the arms and head are affected ; in this case the breathing becomes difficult, urine scanty, great thirst, bowels become inactive, perspiration obstructed, which brings on torpor, heaviness, and a slow wasting fever. If the disease is not timely arrested, there is frequently a large accumulation of water, which often proves fatal.



*Treatment.* The great end to be obtained in the treatment of this disease, is to throw off the accumulation of water, and to prevent its future collection. This may be done by making a free use of stimulating and diuretic teas, which should be followed by a thorough course of medicine. The vapor bath should be used every, or every other day, sufficiently to produce a profuse perspiration; in the mean time, the patient should drink freely of composition tea. The course may be repeated once or twice a week.

Between the courses of medicine, the patient should drink freely of diaphoretic tea; stimulating enemas should be occasionally used, and diaphoretic tea used sufficiently to keep the patient in a gentle perspiration; the spice bitters should be taken before each meal, during the day, and the patient's diet should be of a light and nourishing nature; animal food should be entirely avoided. If this treatment does not throw off the accumulation of water, and it should become necessary to draw it off by tapping, medical aid should be procured.

## DISEASE OF THE URINARY ORGANS.

Excessive flow of urine, is characterized by an unusual discharge of urine; and it said by medical writers, to have a saltish taste, and is of a strong, violent smell, caused by checked perspiration, intemperance in eating and drinking, immoderate use of acid drinks, such as cider, vinegar and water, beers, and the use of strong diuretic medicines, or any thing which has a tendency to debilitate the system.

*Symptoms* most commonly present in this disease, are excessive flow of urine, which immediately effects the whole body, and is attended with a sense of weakness; the bowels become costive, great thirst, loss of appetite, oppression of the stomach, pain in the head and loins, extremities cold, followed by gradual emaciation of the whole body.



*Treatment.* In the treatment of this disease, means should be taken to produce a healthy action in the system ; diaphoretic tea should be drank, sufficient to produce perspiration ; nervine tea, also, should be used ; on going to bed, the feet put into warm water, and heated applications applied ; stimulating enemas also, should be used. If the case is an obstinate one, a course of medicine may be given, and the vapor bath administered, and repeated if necessary. The patient's system should be strengthened with the use of the spice bitters, tonic powders, or restorative cordial, and he should be particular about his diet, and avoid exposure to cold or dampness.

*Retention of Urine.* This is brought on by obstruction in the urethra or neck of the bladder, or by inflammation. The distinguishing symptoms, are a swelling of the lower part of the belly, occasioned by the distended bladder, a frequent desire to pass water, attended with excruciating pain in the region of the bladder.

*Treatment.* In retention of urine, stimulating enemas should be given, rendered quite mucilage with slippery elm, to which may be added a teaspoonful of tincture of lobelia. Mucilages and stimulating teas should be given, and heated applications applied to the feet and sides. If the case is severe, a thorough course of medicine should be given. If this does not produce a sufficient discharge of urine, the catheter or bougie should be introduced through the urethra into the bladder, by which means the water may be drawn off, and the oppression of the bladder relieved. This, with the above treatment will generally effect a cure.

*Suppression of Urine.* This either arises from inflammation, or from the kidney's not secreting urine ; consequently, there is little or no urine conveyed to the bladder. It comes on with a sense of pain in the back and lower part of the abdomen, and a frequent desire to pass water ; if the patient is able to pass any urine,



it is attended with a scalding sensation, and a violent burning pain, perspiration is produced ; it frequently has a strong urinous smell.

*Treatment.* In the treatment of this form of disease, active means should be taken to allay inflammation, and restore the kidneys to a healthy action. Stimulating and diuretic tea should be freely used, and the stimulating enemata administered three or four times a day ; nervine tea, also will be found beneficial. A decoction may be made of Indian hemp and milkweed root, and a teacupful drank four or five times a day, and heated applications applied to the feet. If this does not effect a discharge of urine, a course of medicine should be given, and repeated if necessary ; the intermediate treatment followed as recommended above ; the above teas should be rendered mucilage by the use of slippery elm. This treatment should be followed up until the difficulty is overcome, and the patient restored by the usual tonics.

## HEMORRHAGES.

*Bleeding from the Lungs.* This frequently comes on without any warning. Sometimes, however, previous to its attack, there is a sense of weight about the chest, difficulty of breathing, palpitation of the heart, and a dry, tickling cough, and a long train of other symptoms too numerous to mention.

*Treatment.* If the case is a mild one, a cure may be effected by the free use of a tea made of raspberry, witch hazel leaves and white root, and heated applications applied to the feet ; the diaphoretic tea, made weak, may occasionally be taken to produce a gentle perspiration ; this will equalize the circulation, and generally check the hemorrhage.

In case, however, the hemorrhage is not checked, half a teaspoonful of beth root may be given, repeated



once in three or four hours, and one of the stomach pills may be taken as often. If this does not check the flow of blood, the vapor bath may be administered, followed with a course of medicine ; the above treatment to be continued until the discharge of blood is stopped. The system should be invigorated with appropriate remedies, and the irritation allayed by the use of mucilages, such as slippery elm and gum arabic tea ; the cough balsam should be used to relieve the cough. If this treatment is prudently administered, hemorrhages may generally be arrested, and the patient restored to health.

*Bleeding from the Stomach.* This disease is usually termed vomiting of blood. It may be occasioned by external wounds, as blows, bruises, strains or lifting heavy weights, introduction of poisonous substances into the stomach, which produce inflammation. If the blood is not discharged by vomiting, it passes <sup>off</sup> by the bowels, which causes black and offensive stools.

This disease usually comes on with nausea and vomiting, preceded by cold chills, a sense of weight and pain in the region of the stomach. The blood which is discharged, may be distinguished from that which is discharged from the lungs, by its being thicker or clotted, and of a dark color.

*Treatment.* In the treatment of this disease, an effort should be made to equalize the circulation, and relieve the stomach and bowels from the clotted blood, which if retained has a tendency to derange the general system. The same course may be pursued as recommended in the treatment for bleeding from the lungs ; stimulating enemas should be freely used. Take of yellow dock root, bruised, and boil in sweet milk ; a gill of it may be taken three or four times a day ; this is a laxative, and is beneficial to cleanse the bowels. During recovery, the patient ought to use light and mild substances as food, easy of digestion, and be exceedingly cautious to avoid exposure.



WHOOPIING COUGH.

Whooping cough is mostly confined to children ; adults, however, are by no means exempt from its attacks. It prevails epidemically, and seldom attacks the same individual more than once ; it is very common in the winter and spring. It comes on with the symptoms of a common cold, a dry harsh cough, and slight fever, which by degrees becomes more harsh, and assumes a peculiar sound ; a fit of coughing frequently occurs, which is quite tedious, and continues until a copious expectoration of mucus substance, or vomiting takes place, by which the fit is terminated.

*Treatment.* Whooping cough, under ordinary circumstances, is more troublesome than dangerous. Its danger, however, is in proportion to its violence, and the strength of the constitution of those it attacks. The object to be kept in view, in the treatment of this disease, is to loosen the cough, and allay the spasmodic irritation ; to accomplish this end, a free use of cough balsam and composition should be made ; slippery elm and diaphoretic tea, also, will be found beneficial in allaying irritation. If the phlegm should collect in the air passages of the lungs, and the breathing oppressive, a lobelia emetic should be given ; if feverish, or other symptoms arise, indicating a derangement of the system, a thorough course of medicine may be given, and repeated if it should be necessary. If the patient should become restless, or irritable, the nervine tea may be given, to which may be added a quantity of tincture of lobelia.

DYSPEPSIA OR INDIGESTION.

Dyspepsia may be caused by poison being taken into the stomach, or any substance which is hard of digestion, intemperate eating, the continued use of spiritous liquors, mercurial salivations, excessive cold or hot substances taken into the stomach ; white vitrol,



antimony, arsenic, and the like poisonous substances, used in the regular practice of medicine, are all calculated to disease the stomach. Hence people that have had severe fits of sickness, and been dosed thoroughly with mineral medicines, are exceedingly liable to this disease.

*Symptoms* that characterize this disease, are loss of appetite, pain in the stomach, nausea, heart burn, sour stomach, poor digestion, a sense of weight, or distress in the stomach after eating, followed with trembling or fainting, constipation of the bowels, cold hands and feet, and general debility of the whole system.

*Treatment.* It is necessary in the treatment of this disease, to regulate the general system. This may be effected by taking diaphoretic and composition powders, and paying particular attention to diet; all articles of food should be light, and easy of digestion; unbolted wheat bread, rice pudding, and light vegetable food should be sparingly used. The patient should make a frequent use of the warm bath; if this is not convenient, the hand bath may be used every morning, and the surface of the body rubbed with a flesh brush, or coarse towel; great care should be taken to keep the feet warm and dry; flannel should be worn next to the skin, and other clothing according to the season and climate.

Spice or wine bitters may be taken half an hour before eating each meal; a stomach pill may be taken night and morning, or oftener according to circumstances. Stimulating enemata should be used once or twice a day. If this should not remove the costiveness, a fourth of a table spoonful, or more, of bitter root may be given with the spice bitters. If sourness or acidity of the stomach should exist, a small quantity of saleratus, magnesia, or bicarbonate of soda, may be taken.

After pursuing this course for a few days, if the patient does not feel benefitted, he should be carried through a course of medicine; or, if the general system is much deranged, and the patient's health impair-



ed, a course may be given at the commencement ; it will be found beneficial to carry the patient through a course of medicine, every week or fortnight until his health is restored. Between the courses the above treatment should be followed up ; the great object is to invigorate the system, and restore the animal functions to their wonted tones.

### JAUNDICE.

This disease is generally known by the yellowishness of the skin. It may be caused by whatever checks the flow of bile from the liver, such as inflammation of the biliary duct ; or gall stones lying in the passages ; or it may be produced by disease of the liver, in which case the bile becomes too thick to be discharged by the biliary duct.

*Symptoms* that most usually characterize this disease, is yellowishness of the eyes and skin, whitish or clay colored stool, and urine of a light saffron color ; it comes on with loss of appetite, bitter taste in the mouth, pain in the right side, sense of heat or prickling of the skin. In severe cases, it becomes of a dark color, which has given it the name of black jaundice,

*Treatment.* In the treatment of this disease, we should endeavor to remove the obstructions, and invigorate the system. A course of medicine given at the commencement, will be found beneficial, followed with a free use of tonic powders, or wine bitters. The diaphoretic tea should be taken once or twice a day, and stimulating enemas used to evacuate the bowels ; if much constipation of the bowels should exist, a dose of bilious pills may be taken once a week or fortnight ; as a laxative, half a teaspoonful each of bitter root and barberry, may be taken once a day. The course of medicine may be repeated once a week, and the same treatment pursued as given above, until the disease is removed and the patient restored.



## PLEURISY.

Pleurisy is an inflammation of the membrane, called the pleura, which lines the thorax or chest. It may be caused by taking cold, checked perspiration, drinking cold liquids when the system is hot, wet clothes and feet, going out of heated rooms into the cold air, drinking strong liquors, or any thing which has a tendency to throw an undue quantity of blood upon the internal organs.

*Symptoms.* The symptoms in this disease are similar to other inflammations and fevers. It generally comes on with chills and shivering, followed by heat, and a severe pain in the side, which is greatly increased by coughing, or taking a full respiration, breathing difficult, and the patient finds great difficulty in lying on the side effected ; the pulse is hard, full and strong.

*Treatment.* An attack of this disease is generally severe, and if not arrested it soon terminates in death. Active means should be taken for its removal ; we should commence by giving the patient large and frequent doses of diaphoretic and composition tea ; heated applications should be applied to the feet, and the vapor bath given as speedily as possible, followed with a thorough course of medicine, and making a free use of stimulating enemias. After the emetic has done operating, the side should be bathed with rheumatic drops or liniment.

If the pain should continue severe, burdock leaves, wilted, should be applied to the side, and a free use made of the diaphoretic tea, to which may be added half a teaspoonful of pleurisy root at a dose. Mustard draughts applied to the feet, have proved highly beneficial. The courses of medicine should be repeated, in from two to six hours, according to the violence of the case, and the other treatment continued. Thorough means should be used until the disease is overcome. The treatment in lung fever is applicable in this case, to which the reader is referred.



## MORTIFICATION.

When any part of the body loses all motion, sensibility, and natural heat, and becomes of a brown, livid, or black color, it is said to be affected with gangrene or mortification. Mortification most frequently takes place in putrid complaints, such as fevers, sore throats, cuts, bruises, ulcers, dysentery, inflammation of the bowels, &c.

When mortification takes place, the circulation of blood stops, and the part loses its vitality, and soon becomes insensible. Hence we see patients who have been in excruciating pain, arising from inflammation, all at once become free from pain; this indicates that mortification has taken place.

*Treatment.* Whenever any part of the system is affected with inflammation, and becomes inactive or debilitated, great care should be taken to guard against mortification. This is best prevented by keeping up an active circulation in the parts affected; courses of medicine should be given to regulate the general system, and repeated if necessary, which will reduce the inflammation. If the internal parts are affected, rheumatic drops should be taken in teaspoonful doses; bayberry and diaphoretic tea may be freely drank. Stimulating enemas should be frequently used, to which may be added a teaspoonful each of tincture of myrrh and scullcap.

For external applications, where mortification has taken place, the parts should be bathed with equal portions of rheumatic drops, anti-spasmodic tincture, and tincture of myrrh, and the parts thoroughly rubbed. A poultice made of smart weed, bruised, and boiled in a decoction of white ash bark, and thickened with Indian meal; this should be spread on suitable cloth, and the surface sprinkled over with cayenne, and applied to the affected part. Charcoal and yeast poultices, also, are highly recommended. The poultices must be re-



newed frequently, and the affected part washed at each renewal, with a strong decoction made of white ash bark, or any of the astringent and cleansing washes. If the mortification is so far advanced, that the parts become dead, the poultices must be continued until suppuration takes place, when the dead flesh should be removed, and the common elm poultice applied, and renewed, until the parts are sufficiently cleansed. The parts should be washed daily with a decoction of witch hazle and raspberry leaves ; when the sores are sufficiently cleansed, the healing salves should be applied, and the patient's system invigorated with diaphoretic and nervine tea, and the usual tonics. The wine bit-  
ters are highly beneficial and should be freely used.

### RHEUMATISM.

Rheumatism is divided into two species, acute and chronic ; they differ some in their character and symptoms, but are treated nearly the same. Acute rheumatism is generally produced by taking cold, checked perspiration, excessive labor, exposure to cold, going with wet feet, &c., and comes on with inflammatory swelling of the joints, with a severe pain in the back, hips, knee joints, and other parts of the body ; the parts frequently become red and swollen.

Chronic rheumatism differs from acute in its being attended with little or no fever or inflammation. It is frequently caused by the use of powerful medicines, such as mercury or mercurial salivations, wearing thin clothes, sleeping in damp beds or rooms, suddenly cooling the body when hot, or any thing which obstructs perspiration. Rheumatic difficulties affect the system the most in wet or rainy weather.

*Treatment.* In mild forms of this disease, a cure may be effected by making a free use of diaphoretic, cayenne, and composition teas, and the affected part thoroughly bathed with rheumatic drops and liniment ;



stimulating enemas should be used to evacuate the bowels, and heated applications applied to the feet on going to bed.

In more obstinate cases, where it is attended with acute pain, besides the above treatment, the vapor bath should be administered, and followed with a thorough course of medicine, and repeated as often as necessary. If the feet and limbs are the seat of pain, they should be washed in a decoction of wild cherry bark, to which may be added a suitable quantity of hemlock boughs, and the affected part steamed over it, in the usual manner of steaming a limb or joint.

In chronic forms of this disease, courses of medicine are necessary, in order to produce a healthy action in the system. The other treatment the same as above. The patient should not expose himself to cold or damp air, and his diet should be of a light and nourishing nature, avoiding animal food and spiritous liquors, and using suitable tonics to invigorate the system.

### SCALLED HEAD,

This is an eruption which usually appears on the head and face, and frequently attacks children, who are kept on improper food, and neglect cleanliness. It commences with dark spots on the head, followed with a troublesome itching, which soon discharges an offensive matter. The eruption continues to spread, and if not checked, the whole head becomes covered with scabs.

*Treatment.* In the treatment of this disease, means should be taken to purify the fluids and to produce a healthy action in the system. Diaphoretic and composition tea should be taken sufficiently to produce a slight moisture of the skin. Spice bitters and sarsaparilla syrup should be taken daily. Meadow fern ointment should be applied to the head; or hogs lard simmered with the green of elder, may be applied. On



going to bed, the head should be covered with burdock, mullen, or horseradish leaves, and bound on with a cap or handkerchief; this will favor perspiration and bring off the scabs. They should be renewed when they become dry, and the parts washed clean with a decoction of witch hazle and raspberry leaves, made into a weak soap suds.

After the scabs are removed, if there is much supuration, elm poultices may be applied, and the parts frequently washed with a decoction composed of raspberry leaves, pond lilly, and bayberry. After the parts become thoroughly cleansed, meadow fern, or some other soft ointment should be applied to favor the healing process. If the patient's system should at any time become deranged, a course of medicine should be given, and repeated if necessary; proper attention should be paid to the bowels. The diet should be of a light and wholesome nature, avoiding all fat or salt substances.

#### AGUE IN THE FACE.

Tic Douloureux, as this disease is frequently termed, is one of the most painful of chronic complaints; it is chiefly confined to the face, and is a nervous affection. Those nerves running over the cheek, and extending to the teeth, temples and forehead, and to the corner of the eyes, are the ones most commonly affected. It generally comes on with shooting pains about the eyes, temples, forehead, cheeks, and frequently the whole nervous system becomes irritated. The acute pain occurs in paroxysms of the most excruciating character, succeeded by longer or shorter intervals, and the face frequently becomes swollen.

*Treatment.* As this is a nervous disease, a free use should be made of nervine teas; nerve powder added to the diaphoretic tea may be drank, and the affected part bathed with anti-spasmodic tincture, or rheumatic drops. A flannel wet with equal parts of rheumatic



drops and vinegar, should be warmed and bound on the affected part ; heated applications should be applied to the feet, and also laid near the face. If there is much inflammation or swelling of the face, an elm poultice may be applied, to which may be added a suitable quantity of ginger, Lobelia emetics frequently prove beneficial.

*Toothache* usually proceeds from decayed teeth, when the nerve becomes exposed ; sometimes, however, it proceeds from other causes. A person must use his own judgement as to the propriety of having it extracted. If decayed, the pain is sometimes relieved by wetting a piece of lint with rheumatic drops, and applying it to the decayed tooth ; or the face may be steamed or bathed, as directed above, which is probably the best thing that can be done for common toothache. But if teeth are much decayed, they should be extracted, as they frequently affect the adjoining teeth. Those who wish to preserve their teeth, should keep them clean, and free from tartar or scurf.

## WORMS.

There are several species of worms which infest the intestines of animals and men. There are three kinds frequently found in man ; the small white, or pin worm, the round, long, and the tape worm. Dr. Howard remarks, that worms choose different portions of the intestines to live in ; for instance, the small white worm selects the rectum ; the round worm the small intestines, and sometimes the stomach ; and the tape worm the whole intestinal tube. They proceed from various causes, but are seldom found except when the stomach is weak and relaxed, and the digestion bad. Children who eat great quantities of unripe fruit, or raw herbs and roots, are exceedingly liable to have worms.

*Symptoms.* Symptoms most common to persons affected with worms, are paleness around the nose and



lips, flushes of the cheek, starting and grateing of the teeth when asleep, swelling of the upper lip, loss of appetite, offensive breath, great thirst, swelling of the abdomen, griping or colic pain, dry cough, choking, and frequently fits.

*Treatment.* Bitter tonics, and laxatives, are the most efficient remedies to remove worms. The worm powders may be given two or three times a day; tansy and wormwood, and the like vermifuges, are beneficial. A decoction made of Jerusalem oak and wild cherry, is very good; half a pint may be drank during the day; also, a strong decoction made of butternut bark, and sweetened with molasses, given in half teacupful doses, or less, according to circumstances, until the bowels are thoroughly moved. If the symptoms indicate that pin worms infest the rectum, stimulating enemata should be freely used.

#### LOCKED JAW.

Locked jaw is a spasmodic contraction of muscles, which firmly sets the jaws, and is generally caused by severe wounds in the flesh, such as punctures, lacerations, and amputation of limbs, when a proper action is not kept up in the system.

*Symptoms.* The first symptoms are stiffness in the back part of the neck, which extends to the jaws, and roots of the tongue, the speech falters, swallowing becomes difficult, pain in the breast, jaws become more stiff, and finally are set or clenched together, and remain firm. Other parts of the body, however, have more or less spasmodic motion, until the whole system becomes stiff and motionless.

*Treatment.* Locked jaw seldom occurs in the bontanic practice, if proper treatment is persevered in. If symptoms of locked jaw should arise, a thorough course of medicine, with vapor bath, and stimulating enemata,



with the addition of anti-spasmodic tincture, should immediately be resorted to, and repeated if necessary. If in any case, the jaws should become firmly set, stimulating enemata should be given, to which should be added two or three teaspoonsful of anti-spasmodic tincture, and repeated every ten minutes ; at the same time two teaspoonsful added to half a teacupful of composition tea, and a spoonful poured into the mouth, by placing the finger inside of the mouth, between the lip and teeth, drawing the finger outwards, which will enable it to pass into the mouth between the teeth ; this will assist in relaxing the jaws ; this course should be pursued until vomiting is produced ; heated applications also, should be applied to the sides and feet.

After a short interval, the patient should be carried through a course of medicine, and repeat if necessary. The patient should make a free use of nervine and stimulating tea ; if the difficulty should grow out of wounds or bruises, stimulating washes, and other appropriate remedies should be used, to keep up a healthy action, and other treatment as the circumstances require. Cases have been cured by this treatment, where the jaws have been set for days, and the patient given over by the M. D's. to die.

### CONVULSIONS OR FITS.

Convulsions or fits, are a great degree of irritability of the muscular system. They are often caused by exposure to cold, and increased determination of blood to, or an irritated state of the vessels of the brain, overloading the stomach, breathing vitiated or impure air, irritation of the bowels, want of cleanliness, costiveness, worms, external injuries, incisions or cuts with edge tools, and various other irritations.

*Symptoms.* The most prominent symptoms in this disease, are distorted features, violent agitations of the body, breathing quick and laborious, the eye lids open,



and the eyes fixed in their sockets, or rolled about in every direction, the pupil dilatated, the body bended back, the fists clenched, and foaming at the mouth ; sometimes the convulsions prove suddenly fatal, and at others they last a considerable length of time ; the pulse is small and irregular.

*Treatment.* The most energetic means should be employed in the treatment of this disease ; two or three teaspoonsful of anti-spasmodic tincture should immediately be given, and repeated as the urgency of the case requires ; stimulating enemias, also, should be administered to evacuate the bowels. As soon as the fits abate, a free use should be made of cayenne and bayberry teas, to produce perspiration, nerve powder and tincture of scullcap to quiet the action of the muscles, and a thorough course of medicine to cleanse the system of its obstruction. When the fits have subsided, mild stimulants and tonics should be given to invigorate the system, and to prevent an occurrence of the fits. If, however, symptoms of the fits are perceived, the same treatment should be thoroughly followed, until they are broken up.

#### ST. VITUS' DANCE.

This complaint is most confined to young people ; those of a weak constitution, and are much confined, living upon scanty and improper diet, are most frequently attacked with this disease. The males between the ages of ten and fifteen, who expose themselves by wetting their feet, or labor beyond their strength, are liable to this disease.

It usually comes by nervous excitement of the limbs, such as twitching of the fingers, and muscles of the face ; the legs are so much affected, that it produces awkwardness in walking. As the disease advances, the patient's arms become unmanageable, moving about in an ungraceful manner, and he finds it difficult or im-



possible to convey food to his mouth ; his speech falters, and the patient is unable to stand, and a general excitement pervades the system.

*Treatment.* In the treatment of this disease, means should be taken to relieve the spasmodic affections, invigorate the general system, and tranquilize the nerves. Diaphoretic tea should be taken sufficiently to produce a gentle perspiration, and the nervine tea drank freely ; stimulating enemas should be used, and if much constipation exists, a dose of bilious pills may be taken. If this treatment does not relieve the nervous excitement, a few courses of medicine should be given at proper intervals. The spice or wine bitters may be taken two or three times a day ; the diaphoretic and nerve powder may be taken occasionally, and half a teaspoonful of bitter root every, or every other day. If patient's pay attention to their diet, avoiding tea, coffee, butter, and all oily substances, and follow this treatment closely, they seldom fail to obtain relief.

### CHICKEN POX.

This is an eruptive disease, similar to measles. It commences by flushes of the face, thirst, restlessness, and pain in the back and extremities ; about the second or third day, small pimples may be seen about the breast and face, which spread downwards to the feet, and become filled with a whitish fluid ; in four or five days they become dried up, which form a crust or scab.

*Treatment.* If the patient does not take a cold, little more is necessary than to make a free use of diaphoretic or composition tea, and keep the system warm, and the bowels properly evacuated by enemas. If unfavorable symptoms arise, a course of medicine may be given, and the treatment adopted, as given under the head of measles.



## SCURVY.

Scurvy is a term applied to that disease which is produced by a long abstinence from vegetable diet, exposure to dampness, long sea voyages, and the continual use of salt provisions. It generally commences with lassitude, dejection of spirits, anxiety, faintness, oppression at the breast, nausea and vomiting, gums become spongy, the teeth loose, livid spots appear on different parts of the body, and stiffness of the joints and feet. As the disease advances, bleeding takes place from the nose, lungs, stomach, intestines, &c.

*Treatment.* Persons who are afflicted with this disease, should abstain from all salted animal food, and live as much as possible upon vegetables; if any meat is eat, it should be fresh, such as roasted lamb, beef steak, without any gravy, fresh soups, onions, carrots, pickles, parsnips, turnips, cabbage, &c. The like vegetable diet is regarded as a specific in the treatment of this disease.

If the joints become stiff, and the general health impaired, and digestion poor, a course of medicine should be given, and the vapor bath administered every other day; the courses of medicine should be repeated as the urgency of the case seems to require, and proper attention paid to the bowels. Wine bitters and sarsaparilla syrup may be taken two or three times a day. Lemon juice is also highly recommended; a suitable quantity put into a glass of water, sweetened, may be taken several times a day. A tea may be made of narrow dock root, and half a teacupful drank several times a day, between taking the bitters and syrup. This is of great service, and should always be used when it can be obtained.

## PILES.

Piles arise from a diseased state of the rectum, and anus, attended with tumors, most commonly situated



within the anus, or at its verge. Sometimes the tumors form a ring around the internal surface of the rectum, which renders the passing of the fæces exceedingly painful and difficult. Those tumors or swellings are forced down when the patient goes to stool, and frequently returned with considerable difficulty. When the discharges are accompanied with blood, they are termed bloody piles; otherwise they are termed blind piles. Pregnant women are exceedingly liable to this complaint, and people at middle age of life; it seldom attacks youth, or troubles aged people.

Purgative medicines are a frequent cause of this complaint; or it may be caused by exposure to cold, continued costiveness, strains, or carrying heavy burdens, eating unwholesome food, and a continual use of fresh meats, or any substance that has a tendency to weaken the intestines, more particularly the rectum.

*Treatment.* In mild cases of piles, little more will be necessary than to occasionally give a dose of laxative syrup, and the enema given for piles, administered twice a day; the spice bitters should be taken two or three times a day; vegetable food should be used, such as Indian meal puddings, unbolted wheat bread, &c.

In more severe cases, where the parts become swollen, enemas should be frequently used, made by steeping a suitable quantity of witch hazle, sumach, raspberry leaves and scullcap, in half a pint of water, to which may be added, a teaspoonful of fine elm, and half a teaspoonful of tincture of lobelia; a teacupful of this may be administered at a time; a small quantity of rheumatic drops may be added to the enemas as soon as it can be borne; the pile ointment should be used daily. If the parts become much swollen it should be spread on a piece of linen, and secured to the parts by a bandage. The laxative syrup and tonic medicine should be given to regulate the bowels, and general system. This course should be continued until a cure is affected. If the general system, however, becomes



much impaired, a course of medicine may be given, but the most dependence is to be placed on the enemata, in the cure of this disease.

### PALSY.

Palsy generally comes on with a sudden loss of motion and sensibility of some part of the body. It frequently attacks one entire side of the body; at other times, it only attacks the hand and arm, or a leg, or it may extend to the head and tongue, which causes stammering, or loss of speech. In case of the whole body, or a vital part becoming attacked, such as the brain, lungs, or heart, it very soon proves fatal.

This complaint may arise from any thing which has a tendency to deaden the action of the nervous influence, from the brain to the organs of motion; disease of the spinal marrow, and other important nerves, are a frequent cause of this complaint. The aged and infirm, or the young of a weak, lax habit, who lead a sedentary life, are most liable to its attacks.

*Treatment.* In the treatment of this disease, our first endeavors should be to produce circulation, and restore sensibility to the affected part. The patient should drink freely of strong diaphoretic tea, and the vapor bath administered, followed with a thorough course of medicine, and the affected parts bathed with rheumatic drops, or liniment; also stimulating enemata should be freely administered.

Between the courses of medicine, diaphoretic and nervine tea should be given, and the parts frequently bathed with rheumatic liniment, and thoroughly rubbed; a flannel wet with rheumatic drops, warmed by the fire, should be laid on the insensible parts, and heated applications applied to them and to the feet. The spice or wine bitters may be used two or three times a day. This treatment should be continued until sensibility is restored, repeating the courses of medicine every other day, or once a week, and other means taken to strengthen and invigorate the system.



## CORNES.

Corns are chiefly brought on by tight shoes, which compress the feet, whereby the thickening of the cuticle or outer skin is produced, which forms bunches of a hard, horny substance, that make their appearance on the toes and sides of the feet. They are very sensitive, when pressed upon, and walking increases the pain. They are frequently very difficult to cure.

*Treatment.* If the corns are very painful, relief may be obtained by soaking the feet in warm water, until the corn becomes soft, and shaving it down thin, taking care not to wound or produce pain or bleeding of the living flesh ; a piece of strengthening plaster, or any adhesive salve may then be applied. A plaster of shoemaker's wax, also, has been found beneficial. A strip of suet skin, or bladder, soaked in rattlesnake's oil, nerve ointment, or lard, rubbed until it become pliable, and wrapped around the toe, and properly secured ; this application was extensively used by Dr. Thomson. It should remain on until worn out, and repeated if necessary. The object is to keep the skin soft and moist. The cure of corns, however, mostly depends upon persons wearing large and easy shoes.

## DEAFNESS.

Deafness may be caused by diseases affecting the head, such as scarlet fever, measles, inflammation, or it may be caused by the hardning of the wax, or by some foreign substance in the ear, debility or relaxation of the auditory nerve, violent colds, which affect the head, too much moisture, or great dryness of the ear, or by any thing which proves injurious to the internal organs of the ear, or sense of hearing.

*Treatment.* When deafness is caused by hardning of the wax, the ear should be syringed once or twice a day with warm water, or milk and water ; after each



washing, a little oil may be dropped into the ear, keeping it stopped with cotton. If the deafness is caused by too much moisture of the ear, it should be syringed with an infusion of raspberry leaves, with the addition of a small portion of rheumatic drops, used warm, and the ear to be cleansed with it, and then used cold to strengthen or brace up the internal parts. When deafness is caused by a severe cold affecting the head, it should be kept warm, and a free use made of the diaphoretic or composition tea ; if feverish symptoms arise, a course of medicine should be given, with other appropriate remedies, and repeated if necessary.

#### EARACHE.

Earache may proceed from any cause which produces inflammation, as sudden exposure to cold when heated, or it may proceed from insects, or any hard substance in the ear, or from ulcerations, which frequently follow measles, scarlet fever, or putrid sore throat. Inflammation of the ear, is usually attended with excruciating and throbbing pain ; the patient is often delirious, and sometimes convulsions ensue. If inflammation is not checked, ulceration follows, and there is a discharge of offensive yellowish matter from the ear.

*Treatment.* In severe cases of earache, active means should be employed to allay the inflammation, and prevent suppuration ; roasted onions should be applied to the ear, and two or three drops of olive oil may be dropped into it, and the ear filled with cotton, saturated with tincture of myrrh, to exclude the air. Also, a free use should be made of the diaphoretic or composition tea, to produce perspiration. Relief may be obtained by applying heated applications to the sides of the head, to warm and relax the affected part.

If feverish symptoms, or delirium should arise, a course of medicine may be given, and repeated if necessary, and Indian meal poultices applied in case of



suppuration. If there should be any hardening of the wax in the ear, it should be syringed several times a day with a tea of raspberry leaves, and a few drops of tincture of lobelia, or rheumatic drops added to it. In case of insects getting into the ear, and causing pain, if they cannot otherwise be got out, a few drops of antispasmodic tincture, or tincture of myrrh, may be dropped into the ear to destroy them, and the ear syringed with warm water, or milk and water, to extricate them.

### FALLING OF THE FUNDAMENT.

The cause of this complaint is the frequent use of purges, which particularly affect the large intestines ; it is also caused by habitual costiveness, and the result of small worms, hemorrhoids, and chronic dysentery. It frequently affects children that are troubled with summer complaint, excessive irritation of the rectum, and also those of a weak habit, whether young or old, and is very troublesome.

*Treatment.* In the treatment of this complaint, the parts should be replaced, previously anointed with lard, to prevent irritation, and the parts washed with a tea made of hemlock bark and witch hazle leaves, two or three times a day ; enemas should be used several times a day, by making an infusion of sumach, witch hazle leaves, pond lilly, and hemlock, and adding a small quantity of fine elm to the enema when administered. The washes and enemas should be continued until a cure is effected, and great care should be taken to prevent costiveness. Tonics and astringent medicines, should be taken to strengthen and regulate the bowels and general system.

### SHINGLES.

This complaint is generally caused by sudden exposure to cold, when heated, violent passions, over-exercise, intemperance, and unwholesome food.



*Symptoms.* This disease generally makes its appearance by elevations and itching on different parts of the body, headache and sickness ; rings or patches form around the body, sometimes running over the shoulders, succeeded by pimples or blisters, which contain a clear fluid.

*Treatment.* In the treatment of this complaint, but little is necessary to be done, except to make a free use of the diaphoretic and composition teas, spice bitters, or any of the tonic preparations ; in case of constipation of the bowels, enemas should be used to regulate them. The clusters, or patches, may be bathed with vinegar and water, or rheumatic drops, and occasionally washed with warm water and tincture of lobelia. If the system should become much deranged, it will be necessary to administer a course of medicine, with other appropriate remedies. If inflammation takes place, or ulcers form, they should be treated the same as directed under that head. The diet should be of a light and nourishing kind, avoiding all oily and greasy substances.

## FAINTING.

Fainting is frequently caused by fear, grief, joy, and other violent emotions of the mind, breathing impure air, tight lacing, loss of blood, or any thing which has a tendency to weaken the action of the heart ; hence arises the paleness of the face, and the suspension of animation.

*Treatment.* If a person becomes faint, he should be laid on a bed, or his head otherwise brought on a level position with the body, in order to favor the flow of blood to the brain, and cold water sprinkled in the face ; vinegar, camphor, or hartshorn, put on a handkerchief, or a suitable cloth, and applied to the nostrils, or it may be applied by holding a vial of it near the nose. Every thing tight by way of dress, or otherwise, about the



waist, should be lossened. If this does not bring the patient too, a suitable quantity of rheumatic drops may be given, stimulating enemias administered, and if necessary a course of medicine.

## CHILBLAINS.

This is a painful swelling of the toes, heels, fingers, nose and lips, and becomes of a red or blueish color ; the person is annoyed with an obstinate itching, and a sense of twingeing in the affected part ; if the swellings are neglected, they frequently ulcerate. People are very often affected with it in cold weather, arising from continual exposure to cold, or from a suspension of animation ; persons of a cold weak habit are most commonly afflicted with this complaint ; the severity is frequently increased on going to the fire when the body is chilled, owing to a conflict between heat and cold.

*Treatment.* People subject to chilblains, should take equal parts of cayenne and ginger, and sprinkle a small quantity in the feet of their stockings, and should be worn daily, especially if exposed to cold ; or if the affected parts become swollen, they should be bathed with rheumatic drops, or liniment, and anti-spasmodic tincture, and washed on going to bed, with a decoction of smartweed, wild cherry, or cayenne added to the water, and bathed with the above liniments, and heated applications applied.

## COSTIVENESS.

Costiveness frequently attends various disorders, or it may proceed from errors in diet. People of sedentary habits making use of high seasoned food, strong tea, or coffee, and get insufficient exercise in the open air, are exceedingly liable to this complaint. If a person is costive, he is affected with headache, sickness at the stomach, want of appetite, flatulency or wind in the



stomach and intestines, swelling of the abdomen, bitter taste in the mouth, parched tongue, and offensive breath, with some degree of fever, general dullness and melancholy, or dejection of spirits.

*Treatment.* If constipation of the bowels arise from disease, it will be necessary to invigorate the general system. This may be done by making use of stimulating teas, and enemas ; spice bitters may be taken twice a day, rendered laxative by one fourth of a teaspoonful of blackroot. If constipation occurs, and the patient is otherwise in good health, a couple of bilious pills may be taken on going to bed, or the laxative syrup taken sufficiently to produce a looseness of the bowels, and enemas used once or twice a day ; sarsaparilla syrup is an excellent article to remove costiveness ; boneset, golden seal, barberry, bitter root, dandelion, elder flowers, and yellow dock, are all laxatives, and may be used with advantage. Much, however, depends upon a proper regulation of the diet ; fat meat, butter, and all greasy substances, and high seasoned cake, must be refrained from ; vegetable substances, or unbolted wheat bread, hasty pudding, potatoes, rice, gruels, jellies, and ripe, wholesome fruits, may be eat in suitable quantities.

## HEADACHE.

The most common cause of this complaint is a foul stomach. It may arise, however, from a cold settling in the head, or for want of proper rest, exposure to the rays of the sun, constant application to hard study, or any thing which throws too great a determination of blood to the head ; hence, it often attends symptoms of fevers, and other diseases. If it arises from some obstinate nervous affection, the patient will be liable to a frequent return of it, and it will be more difficult to cure, than in most other cases.

*Treatment.* If headache arises from a nervous affection, a free use should be made of nervine and diaphor-



etic tea, and two or three stomach pills taken in the course of the day ; stimulating enemas should be administered, to which may be added a teaspoonful of nerve powder ; on going to bed, heated applications may be applied to the feet. If it should arise from costiveness, the same treatment may be pursued as given under that head.

Whenever it arises from a foul stomach, which may be ascertained by a bitter taste in the mouth, and a sense of weight or oppression at the stomach, and frequent distressing nausea or sickness, a thorough course of medicine should be given to regulate the digestive organs.

I was much afflicted in early life, with severe attacks of sick-headache, and never escaped more than a week or fortnight, without an attack, from which I obtained no permanent relief, until I resorted to thorough courses of medicine, which so effectually removed the malady, that I have been six months at a time without any serious attack.

### ITCH.

Itch is a disease of the skin, and rarely effects the general health. It is generated by personal uncleanness, and impure air, or improper diet, and is frequently contagious. It has its origin in the skin, and shows itself in the form of small pimples, or watery pustules between the fingers, and upon the wrists, arms, legs and waist ; those pimples are attended with intolerable itching, and is increased by the heat of the body, which induces the individual to rub or scratch, which breaks the pimples and frequently produces large sores.

*Treatment.* Many things are known to be good for the cure of this disagreeable disease ; among them are the meadow fern ointment, or an ointment made of yellow dock root, and applied externally. The composition and diaphoretic teas should be used, and the body



washed daily with soap and water, and bathed with tincture of lobelia ; after the surface becomes dry, the ointments may again be employed. This course should be pursued until a cure is effected.

### RINGWORMS.

Ringworms make their appearance by an eruption of the skin, forming in a circular patch, consisting of small red pimples, which contain a thin acrid fluid ; the patches or circles spread, forming a ring, and the inner skin appears quite healthy. In most cases they are not very troublesome, being only attended with a slight twinging or itching.

*Treatment.* But little more will be necessary in the cure of ringworms, than to keep the parts thoroughly clean ; it should be washed daily with castile soap and water, after which it should be bathed with rheumatic drops, or bayberry tea, and the meadow fern ointment spread on a linen cloth, and applied over the parts ; this will exclude the air, and favor the healing process ; an ointment may be made of yellow dock, or the healing salve applied, and the person may drink the spice biters and sarsaparilla syrup. These remedies in most cases will effect a cure.

### SORE EYES.

Inflamed or sore eyes, arise from various causes, as exposure to cold, acid fumes, too strong light, intemperance in eating and drinking, or going too long without sleep, riding in cold, dry winds, and is supposed sometimes to arise from an acrimony in the blood ; it is also thought to take place from contagion, and sometimes prevails as an epidemic ; in this case, it must proceed from a vitiated state of the atmosphere.

*Treatment.* In case there is not any inflammation in the eyes, they may be washed several times a day, with



the preparation given under the head of eye-water ; milk and water, also, may be used, avoiding every thing which has a tendency to weaken the eyes, such as strong light, or exposure to cold damp air. If the eyes should be very sore, and attended with much inflammation, a course of medicine should be given, and slippery elm poultices applied, or an alum curd ; a thin piece of gauze may be laid over the poultice before it is applied ; these should be renewed as often as they become dry ; at each renewal, the eyes should be thoroughly washed with warm milk and water, or with raspberry and witch hazle tea, and bathed with the eye-water : if the poultices become too warm and cause much pain, they may be occasionally wet in a cold infusion of gold thread. If the case is an obstinate one, it will be necessary to repeat the courses of medicine, at proper intervals. During the course of medicine, the pain may be much relieved by laying a cloth upon them, previously wet in cold water. Between the courses the patient should drink freely of diaphoretic and composition tea, and take of the spice or wine bitters two or three times a day, avoiding exposure, and subsisting upon vegetable diet.

### POISONING.

Poisons are generally divided into three classes ; Animal, Mineral and Vegetable. Animal poison proceeds from bites of the rattlesnake, or of the mad dog, fox, wolf, cat, and also from the bites and stings of various animals and insects, peculiar to different countries.

*Mineral poisons* may be distinguished from vegetable, by their action on the system ; the former corrodes, stimulates and inflames ; while the latter generally stupifies, without leaving any marks of inflammation. Mineral poison seldom proves fatal, until after most excruciating pain or convulsions are experienced, for at least two or three hours. Some of the vegetable



ones, however, terminate life in a few minutes. Mineral poisons consist of arsenic, mercury or quicksilver, corrosive sublimate, antimony, saltpetre, nitrate of acid, or aquafortis, sulphuric acid, or oil of vitrol, white vitrol, or sulphate of zinc, blue vitrol, or sulphate of copper.

*Vegetable poisons* consist of prussic acid, digitalis, or fox glove, deadly night shade, stramonium, or thorn apple, cicuta, opium, morphine, ipecac, and numerous others of a less poisonous nature. The above articles, both mineral and vegetable, are more or less used in the regular practice of medicine, although they are admitted by medical writers, to be deadly poisons. When taken by accident, or in over doses, it is expected that death will immediately follow; consequently, medical writers give the symptoms and treatment to be pursued in case of poisoning from each article. As strange as it may appear, those very articles are given to us with the pretension to cure our aches and ills. It is not to be expected, however, that those who obtain a knowledge of a more safe and certain way of curing disease, will make use of those poisonous substances; therefore there will only be given a general treatment of poisoning by accident.

The symptoms which arise from all the mineral poisons, are very similar; in large doses they excite vomiting and may be discharged from the stomach without doing much injury, but when retained in the stomach, it destroys life in a few hours. The patient feels a burning sensation in the throat, great thirst, griping pain in the stomach and bowels, violent hiccuping, breathing and swallowing difficult, bloated or livid countenance, delirious, fainting, coldness of the extremities, quick, small pulse, stiffness of the limbs, and a universal convulsion generally ends the scene.

Vegetable poisons are characterized by stupor, drowsiness, acute pain in the throat, extending to the stomach and bowels, nausea, and frequently vomiting, loud and laborious respiration, pale or livid countenance,



dimness of sight, shivering and delirium, great restlessness, convulsed motion of the face and limbs, and great prostration of strength. If the poison be not speedily ejected from the stomach, the scene soon ends in death.

*Treatment.* If it is known or suspected that poison has been taken, it should be immediately ejected from the stomach, by a thorough emetic; anti-spasmodic tincture is the most convenient, and probably the most effectual remedy that can be used. It should be given in larger quantities than usual, and repeated every five minutes until vomiting is induced; stimulating enemas also should be administered, to which may be added two teaspoonful of tincture of lobelia. The patient in the mean time should drink freely of diaphoretic and composition tea. This course should be pursued, and the vomiting continued until the stomach is thoroughly cleansed from the poisonous substances; after which the diaphoretic and stimulating tea should be drank sufficiently to keep the patient in a lively perspiration. If he should be stupid or too much inclined to sleep, vinegar and water, or lemon juice may be given, which will have a tendency to neutralize the narcotic properties of the poison. After three or four hours repose, if the patient is effected with soreness, or inflammation of the stomach, a thorough course of medicine should be given; after which, mucilages and nervine teas should be freely used, and spice bitters or other tonic preparations used sufficiently to enable the patient to regain his strength.

*External Poison.* It will only be necessary for the patient to drink diaphoretic and nervine teas, and wash the surface of the body, or the part affected, with tincture of lobelia, red raspberry, or princes' pine tea, salt and water, milk and water, or any of the cleansing and soothing washes.



## MENSTRUATION.

Menstruation is a monthly discharge from the womb of females, which generally commences about the fourteenth or fifteenth year, and continues until they are forty-five or fifty years of age ; it is however suspended during pregnancy, and frequently in disease. The health of females depends very much upon their regular monthly evacuations ; a great number of the distressing difficulties which afflict a large portion of females, might be avoided, if proper information on this subject was accessible to the heads of each family. We have not room, however, in this work, to speak at suitable length on all those diseases peculiar to the female sex ; neither would it be proper in a work like this, designed so exclusively for family use. We would therefore recommend to the heads of each family, to obtain the small work, entitled, the Woman's Friend, or the Midwife's Practical Directory, by Thomas Hersey. It comes at a low price, and is a book of great worth, and ought to be owned by every family. We shall, however, give the treatment of a few of the most common female complaints.

## SUPPRESSION OF THE MENSES.

If menstruation is checked by any unnatural cause, as taking cold, severe labor, going with cold and wet feet, or mental agitation, active means should be taken to re-establish a regular discharge. Women should be exceedingly careful not to expose themselves to cold at any time, but particularly near the time they expect their monthly evacuations, and especially after they have commenced. Many a good constitution has been ruined, and the happiness of many a female destroyed for life, by carelessness at this critical period ; indeed, a very considerable number of the diseases of women, arise from this one cause.

*Treatment.* In case of non-appearance of the menses, in the young female, or its retention in older per-



sons, owing to a lax or feeble constitution, diaphoretic tea, spice bitters, or female powders should be taken several times a day, and occasionally a course of medicine, taking proper exercise in the open air, keeping the feet dry and warm ; the vapor or warm bath should be occasionally taken, and the surface of the body rubbed night and morning with a coarse towel or flesh brush ; light and nourishing food should be used, and other active means taken to invigorate the general system. Near the time the return of the discharge is expected, cohosh, or rattle root tea may be drank ; composition and other teas as recommended above ; it will generally answer the desired end.

If, however, it should arise from cold taken at, or near the time of monthly discharges, active means must be taken for its removal, or serious consequences will follow. If any feverish or unfavorable symptoms arise, a thorough course of medicine should be given, and repeated if necessary, and a free use made of diaphoretic, cayenne, and bayberry teas ; the female powders should be taken three or four times a day, and rattle root also, may be used. After the discharge is effected, if it should be too profuse, the patient may drink witch hazle and raspberry tea, and if necessary, a small portion of beth root may be added.

### PAINFUL MENSTRUATION.

The suffering of women, who are subject to this complaint, is often of the severest character, resembling in point that of pain in labor. In cases of painful menstruation, the breast frequently appears to sympathize with the womb, and becomes swollen and very painful ; there is pain also, in the hip, back and loins, headache, sickness at the stomach, vomiting, and many other unpleasant and distressing symptoms.

*Treatment.* The most effectual means in curing this distressing malady, is making a free use of stimulating teas ; composition and diaphoretic tea should be freely



used ; warm fleabane tea is also highly beneficial ; stimulating enemata should be freely used, and the parts over the region of the womb, bathed with warm rheumatic drops and vinegar, and a flannel wet with the same laid on the abdomen ; fomentations of hops or herbs, are frequently used with much advantage ; heated applications should be placed at the sides and feet, and stimulating teas given sufficiently to produce perspiration. If this does not afford relief, a thorough course of medicine may be given, and repeated if necessary.

### PROFUSE MENSTRUATION.

This complaint may arise from general debility of the body, or a particular weakness of the uterus, or womb ; it may be profuse, either from its too frequent occurrence, or from too great a quantity, when at a proper period ; there is frequently attending this disease, a discharge of real blood, which proves very debilitating.

*Treatment.* In the treatment of this disease, means should be taken to strengthen the general system, more especially the womb. A tea of raspberry and witch hazle leaves, and a small quantity of beth root added to it, may be freely drank ; diaphoretic and bayberry tea may be drank sufficient to keep the patient in a gentle perspiration ; stimulating enemata should be used, and heated applications applied to the feet. A tea made of witch hazle, raspberry and scullcap, and injected into the vagina, about blood warm, will strengthen the womb, and have a beneficial effect in checking the discharges ; the above treatment should be thoroughly followed up. If this should not sufficiently check the discharges, a course of medicine should be resorted to, or any of the treatments for hemorrhages, are applicable in this case ; the female powders and spice bitters should be used to strengthen the general system.

*Fluor Albus or Whites*, is a discharge from the womb and vagina, of a white or milky color, and is a very offensive, as well as weakening or debilitating complaint. It may be treated the same as recommended above.



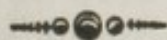
## CONCLUSION.

In bringing this work to a close, it may be proper to remark, that the reader should bear in mind the general principles on which diseases are treated ; in sudden attacks we should not stop to find a name for the disease, but administer medicine at once, either by stimulating, steaming, physicing, vomiting, or by giving a thorough course of medicine, in order to remove the obstructions, purify the fluids, and re-instate the general system. If this end is obtained, it is of but little consequence whether we know the name, or fully understand the nature of the disease ; with the description we have given, however, the different diseases may be, in most cases, readily known. In the treatment of children, the same course should be pursued as in adults ; medicines, however, should be of a milder nature and the doses regulated according to age and circumstances.

It may be thought that we are somewhat limited in the list of compounds and remedies for disease ; but this idea will vanish, upon the application of these which are given ; they will be found adequate to remove all curable diseases, when properly administered. Hundreds of cases might be given, in which they have been administered with success, which would not only be useful, but interesting to the reader, but the want of room obliges us to omit them. The work is already larger than was anticipated at its commencement. We find in its perusal, a few typographical errors, and occasionally a misuse of small words, which were overlooked in the proof sheets, owing to the multiplicity of business in which we were engaged.



## GLOSSARY.



*Abdomen*, The belly.

*Absorbents*, Small delicate vessels, which suck up substances.

*Absorption*, The taking up of substance by absorbents.

*Anus*, The fundament, or extremity of the large intestines.

*Caloric*, The matter of heat, or that which produces sensation of heat.

*Constipation*, Costiveness.

*Capillaries*, Small blood vessels which connect the arteries and veins.

*Cerebrum*,  
*Cerebellum*, } The brain.

*Chyle*, Milky fluid which is separated from the chyme and enters into the formation of blood.

*Congestion*, Too great an accumulation of blood in any part.

*Convulsion*, A violent contraction of the muscles by spasms.

*Contagious*, Disease communicated from one person to another.

*Diaphragm*, A muscle which separates the chest from the abdomen—the midriff.

*Duodenum*, The upper portion of the small intestines connected with the stomach.

*Delirium*, An alienation of mind, or wandering of the senses.

*Digestion*, Dissolving of aliment or food in the stomach.

*Emesis*, Vomiting.

*Enema*, Injection or clyster.

*Exhalents*, Small vessels which carry off the perspiration or waste fluids from the system.

*Excretory ducts*, Small vessels in the fabric of the glands.

*Epigastric region*, That part of the abdomen that lies immediately over the stomach.

*Febrile*, Indications of fever.

*Fæces*, Discharges from the intestines.

*Febrifuge*, A medicine that has the power of arresting the progress of fever.

*Gangrene*, Mortification.

*Gastritis*, Inflammation of the stomach.

*Gastric*, Relating to the stomach.



*Hypochondric region*, The right and upper portion of the abdomen.

*Hemorrhage*, Bleeding from any internal organ.

*Hectic*, A slow habitual fever.

*Lacteals*, The vessels which absorb the chyle from the intestines, and pour it into the thoracic duct.

*Morbid*, Diseased, sickly, unnatural.

*Mucus*, A slimy fluid secreted by the mucus membrane.

*Narcotic Poisons* that destroy the sensibility of the nerves.

*Nausea*, An inclination to vomit.

*Œsophagus*, The gullet or meat pipe.

*Ossified*, Changed into bone.

*Paroxysm*, A periodical attack of disease, which lasts for a limited time and then ceases.

*Pericardium*, The membranous sack surrounding the heart.

*Pulmonary*, Relating to the lungs.

*Pylorus*, The lower or intestinal orifice of the stomach.

*Retching*, Straining to vomit.

*Respiration*, The act of breathing.

*Remittant*, Ceasing for a limited time.

*Stranguary*, A difficulty in voiding urine.

*Spasm*, Cramp or convulsion.

*Secretion*, The act of separating from the blood, substances different from the blood itself, as bile, &c. &c.

*Synovia*, A white fluid peculiar to the joints.

*Thorax*, The chest.

*Tepid*, Warm in a small degree, luke warm.

*Torpid*, Stupid, inactive, numb.

*Trachea*, Windpipe.

*Tissues*, The texture which composes the different organs.

*Vena cava*, The two large veins through which the blood is poured into the heart.

*Vertigo*, Dizziness or giddiness of the head.

*Viscera*, Contents of the thorax and abdomen, as the lungs heart, stomach and intestines.

*Viscid*, Sticky, gummy, glutinous.



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**J. TAYLOR,** Medical Botanist.



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