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Beside the main topic this Book also treats of
CONSUMPTION

FORESTALLED AND PREVENTED.

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INTRODUCTION TO THE READER.

Several reasons have induced the Author to write, or rather compile, this little book, some of which will be enumerated in this Introduction.

The work is designed, not so much for the Medical Profession (which the writer deems himself by no means competent to instruct), as for general readers.

Pulmonary Consumption is the great ravager of our climate.

The late Dr. James Johnson, of London, said, "Pulmonary consumption alone is computed to carry off fifty-five thousand British subjects annually, or, cause one fifth, or sixth, of the whole mortality."

In this city, and the towns bordering upon the Atlantic, the mortality, from this destroyer, is about as great as that of England; and what seems to render the deaths from this disease the more to be deplored, is, the class of persons
who fall victims to its ravages. These are, more generally, the young, and fair, and enterprising citizens, both male and female, among us. It is generally agreed among medical men, that the most which can be done for consumptive patients, must be in the way of prevention, rather than cure. If anything can be done (and it is believed much can be) in preventing so direful a disease, it will be conferring a signal benefit upon the community to lay these salutary measures fairly before them.

The writer belonged to a consumptive family, and was, in early life, a fair candidate for this disease; yet he has, by much precaution, under a good Providence, succeeded so far in overcoming this predisposition to consumption, that he has been able to pursue a course of medical study, and devote much attention to investigating this disease. With the hope that he may be useful to many who might never come under his professional care, he has been induced to write, and compile, this short treatise, and give it to the public. Relying on their candor, and the courtesy and kindness of the medical profession, he commends the work to the perusal of the community, trusting that
INTRODUCTION.

It may be of some service to that class of persons for whom it is more especially designed, namely, those who are predisposed to Pulmonary Consumption.

Multitudes of young persons fall into this disease from not knowing how to take care of themselves. It is hoped this little work will, at least, enable them to understand what measures ought to be pursued to forestall and prevent this most formidable destroyer from making such direful ravages as it has for several years past.

The minister of the gospel who has been called, as the writer often has, while in the exercise of parochial duties, to sit by the couch and bend over the bed, where were languishing and dying the loveliest portion of his flock, must have a heart very unbecoming the functions of his office, if he has not, in the deepness of his sympathy, asked himself the question, Can nothing be done to stay the ravages of this destroyer? Were it not believed that something more can be accomplished, by way of prevention, than has been heretofore, the labor of writing and compiling the following pages would have been spared. I say writing and compiling, for I do not pretend that the mass of
the matter is original. *The work is designed to bring together on this subject*, in a commodious form, the remarks of others, as well as the views of the Author. Credit is generally given on the page where a quotation is made, but I would here say that I am indebted to the late Dr. Johnson, to Laennec, Armstrong, and Dr. Warren, of Boston, for quotations, as will be seen in the work; and for a portion of the chapter on the Structure and Use of the Lungs, to Dr. Fitch, for which I give full credit here, as his name was omitted in that chapter.

**The Author.**

*Boston, Feb. 2, 1846.*
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CONSUMPTION FORESTALLED
AND PREVENTED.

PART I.

CHAPTER I.

ORIGIN AND CAUSE OF THE DISEASE.

Pulmonary Consumption is a hereditary disease, or rather, it arises from a scrofular diathesis, called by Laennec,* "The development in the lungs of a particular species of Accidental Production." By accidental production, he

* M. Laennec, who did more in exploring this disease than any one of his age, was born in Lower Brittany, Feb. 17, 1781, and died August 13, 1826, of pulmonary consumption, a victim to the disease which he had spent most of his life in exploring.

It is a singular fact that so many eminent physicians, who have made consumption a peculiar study, should have died of this disease—as was the case with Laennec, and Armstrong, and Benjamin Lincoln, of this country, lecturer in the Medical School of Vermont, and many others.
means that predisposition to consumption which is inherited from consumptive parents, or, the existence even, of what has been called tubercles in the lungs.

This production, or predisposition, or tubercles, is developed by colds, inflammation of the lungs, pleurisy, eruptive fevers, unhealthy localities, intemperance in eating and drinking, suppression of any natural evacuation, constitutional syphilis, insufficient clothing and undue exposure, neglect of exercise, abuse of mercury and other medicines, excessive mental exertion, various kinds of mechanical labor, such as the manufacture of needles, filing of iron, laboring in cotton and other manufactories where much of the dust must be inhaled, a stooping position of the body, either in sitting or walking, unnatural compresses about the chest, long and excessively loud speaking, playing on wind instruments, &c. &c.

There are many diseases accompanied by cough, expectoration, emaciation, and hectic fever, which are not, properly, Pulmonary Consumption, though they may have been mistaken for genuine Phthisis, or consumption.

Consumption usually approaches insidiously
upon young persons of "light hair, fair skin, blue eyes, florid complexion, contracted chest and high shoulders." They are generally (though not always) descendants of those who have fallen victims to the same disease.

The first ostensible sign of the disease is a short, dry cough, much resembling a common cold. Until recently, it has been extremely difficult for the physician to arrive at a decisive prognostication of this disease in its incipient stage, as the cough, though somewhat peculiar, is not a sure criterion, and as the expectoration at first does not vary from the usual kind, pus not being expectorated till the disease has made considerable progress. But, in the present improved state of medical science, aided by what physicians call Physical Signs, that is, by the application of the ear and instruments to the chest of the patient, the existence of true consumption may be readily ascertained by the skilful practitioner; and, had he an opportunity of examining consumptive patients earlier than he usually has, he might be of much more service to them than he often is.

A patient in true pulmonary consumption presents a picture, at once deeply interesting, and
exceedingly distressing. The symptoms are well described by a physician who lived several centuries ago, and are the following: "As soon as the hectic fever is established, wasting of the body becomes manifest, the cough, expectoration, perspiration and diarrhoea are more abundant. The nose becomes sharp and drawn; the cheeks prominent and red—and appear redder by contrast with the surrounding paleness; the conjunctiva of the eyes is of a shining white, or, with a shade of pearl blue; the cheeks are hollow; the lips are retracted and seem moulded into a bitter smile; the neck is oblique and impeded in its movements; the shoulder blades are projecting and winged; the ribs become prominent, and the intercostal spaces sink in; the nails become incurvated, and the large joints of the fingers more prominent."

These are the marked symptoms of the disease in its worst form. I have often looked upon patients, thus wasting, with the deepest anxiety and feelings bordering upon melancholy. I cannot help calling to mind the following language of Dr. James Johnson: "When phthisis is regularly established, it forms one of the most distressing pictures which the human
frame exhibits in its progress to corruption! The hectic flush on the cheeks, the vermilion lips, the burning heat in the palms of the hands and soles of the feet, with evening fever, are periodically changed for cold colliquative sweats, hollow, pale, languid countenance, sharpening features, augmented expectoration, and progressive emaciation! Such is the series of heart-rending symptoms which are daily presented to the agonized friends, whose distress is heightened by the never-dying hopes which perpetually spring in the hectic breast! Whether it is that the delicate organization which predisposes to this destructive disease contributes to amiability of temper and sweetness of disposition, is doubtful; but certain it is, that the malady in question falls in general on the best, as well as the loveliest part of creation."

The number of deaths from consumption in Boston, the past year, as stated in the City Register, was four hundred and thirty-six. This is a large increase upon preceding years. In the city of New York, during the first two weeks of December last, there were sixty-seven deaths from consumption, as stated in the Medical and Surgical Reporter of that city.

2*
To consumption, Sydenham said, two thirds of those who died of chronic diseases in Great Britain, fell victims. Drs. J. Johnson, Heberden, Young and Abercrombie say about one in four or five of all the deaths that happen in England are from consumption. Laennec says, "in Paris, and the great cities in the interior of France, the proportion of deaths from this disease is one in four or five." In New England the proportion is about one in four or five; probably, as much as one in four in Boston. It is less prevalent in more northern latitudes, as Russia, Canada, and among the Alps in Switzerland, where the winters are long and severe, and there are few sudden changes. By an examination of the Boston Medical and Surgical Journal, in which the deaths in Boston are reported weekly, I find, on an average for several years past, about three hundred have died annually by this disease.

Much more might be said of the causes and symptoms of consumption, but in treating of the prevention of this disease, we must necessarily speak particularly of its causes, in order to point out the course to be pursued to avoid its development, and more or less will be said of the
symptoms accompanying its progress; therefore, we shall say no more of its cause in this place.

The *predisposition* to consumption, or what is called its *hereditary* cause, is not under the control of man. But, if the disease can be delayed and finally deferred (as it is believed it can, by the use of proper means), this predisposition will be lessened in every succeeding generation, until the dreadful scourge, instead of committing greater ravages, year by year, as has been the case in our country, will be nearly averted. To aid in accomplishing such an object, is the design of this work. But before stating these means of prevention, I shall speak of the structure and use of the Lungs, and of the development of tubercles of various kinds, and whether consumption is curable by nature or not.

**CHAPTER II.**

**STRUCTURE AND USE OF THE LUNGS.**

There have been various opinions respecting the structure of the lungs. Some have supposed that the air cells were formed by the
inner membrane of the bronchi divided into cells like those of a sponge.

Some have thought they were formed by a simple cellular tissue, disposed without any regular order, derived from the cellular envelopes of the various vessels by which the lungs are penetrated. This has been the general opinion of anatomists.

Others, however, have ascertained by the microscope and by injections of mercury, that the bronchi are divided at their extremities into a multitude of small canals, grouped; somewhat in the manner of the end of the branches of the cauliflower. Laennec, than whom better authority on this subject does not exist, is inclined to this opinion, though the opinion did not originate with him.

"It is very difficult to see things in the lungs distinctly, on account of the black pulmonary matter which is always found in those of adults after death. It is this matter which causes the small black dots which we sometimes see in sputa of the dry catarrh.

"Another cause which prevents our coming to a correct judgment on this subject, is found in the serous and sanguineous infiltrations which
are usually discovered in the posterior or back parts and near the roots of the lungs."

The lungs possess the upper, lateral and back parts of the chest. They are divided into two lungs, like sacs; one on the right, the other on the left side. The heart is situated between them. It forces the blood through the lungs, and through the whole body. The whole blood of the body thus passes through the lungs. It is sent out through the arteries red blood. It returns by the veins to the right side of the heart black blood. It loses its dark color by passing through the lungs. The red blood, in its rapid current through the arteries, sustains life. It goes to the hair-drawn extremities or capillaries, and there parts with its vital principle, which it received from the air in the lungs. From this, it is evident that the lungs are vital organs.

The mechanical object of the lungs is to present an extended surface of blood to the air. The air cells exceed in number all accurate calculations, and have been thought to be more than one hundred and fifty millions in a single man, and present a surface of blood to the action of the air, twenty-five hundred times as
great as the surface of the human body. The lungs respire from three to five thousand gallons of air in twenty-four hours. Much more air is respired in exercise than in a state of repose. The lungs are designed to aerify the blood, to supply vigor and strength to the animal. They give him action. Not a finger, or a toe, or any part of the body, can be moved unless the lungs are supplied with air. That the strength and vigor of the constitution, and its vital powers, are derived from the lungs, seems evident from the fact that the more we exert ourselves, the more we respire. Thus, in climbing up, we inhale much more air than in descending. We breathe quicker.

In the horse (as all dealers in the horse tell us), the speed and strength depend on the size of the lungs. So in man—you will find the one of broad chest and expansive lungs, stronger than he of narrow chest and contracted lungs. So, also, between the male and female. In the male, the lungs are one third larger than in the female. This accounts for the superior strength of the man above that of the woman. The same principle accounts for the activity of those animals which breathe in an open atmos-
phere, and the sluggishness of those which hy-
bernate in caves and dens and rocks. The lat-
ter make no exertion, and breathe but three or
two times a minute. So, also, with fish. They
use but little exertion, and breathe very little
air. Though they can dart quickly, yet they
cannot endure long fatigue. By the formation
of their gills, but a small surface of blood can
be acted upon at once by the air. The weak-
ness of their nervous system is the reason why
they will so soon turn upon their backs, if
you strike upon the ice or fire a cannon directly
over them. Boy's sport by killing them in
this way.

But there are *birds* which are so supplied
with lungs, as to be able to endure much fatigue
and exert great strength. Such is the eagle.
Almost the whole body is filled with air, as also
are the quills. The same is the case with the
condor and the pigeon. Some of these birds,
like the eagle and the hawk, are capable of
carrying a weight equal to their bodies. We
account for this immense strength of vital power
by the large quantity of air which is consumed
by the lungs.
The same truth is inferred from the fact that one ounce of blood lost from the lungs, renders the patient more feeble than the loss of five times the quantity from other organs.

The same truth also accounts for the superior strength of those inhabiting cold climates. Cold air rarefies the blood much more than warm air. The North man is always superior to the South man in strength and valor. Witness the Goths and Vandals.

These, and many other facts that might be named, fully substantiate the opinion that the use of the lungs is to supply vitality, and hence also motion and activity, to the animal frame.

Passing by several diseases, or states of the lungs, such as Hypertrophy, or superabundant nutrition — Atrophy, or the lessening or compression of the lungs — Emphysema, or distension of the air cells of the lungs — Ædema, or infiltration of the lungs — Apoplexy, or hemorrhage of the lungs — and Pneumonia, or inflammation of the lungs, in accordance with the object of this work, I shall now speak of Phthisis Pulmonalis, or Tuberculous Consumption.
CHAPTER III.

TUBERCLES.

Tuberculous Consumption is really the true or hereditary consumption. Laennec (to whom I am indebted for the remainder of this chapter, with a few additions) enumerates insulated tubercles under four classes—miliary, crude, granular and encysted. Tuberculous infiltration he also divides into three varieties—irregular, grey and yellow.

The miliary tubercle is the most common form in which tuberculous matter appears in the lungs. The tubercles resemble small grains. They are of a grey color, but sometimes colorless, sometimes semi-transparent, and sometimes transparent. They are very small, and vary in their size; the largest being about the bigness of a hemp, and the smallest about that of the millet, seed. They appear to the naked eye to be nearly round, but when examined by a microscope, are found to be irregular, or angular. They are so intimately connected with the substance of the lung, that when detached, they take away a portion of it with them. They
grow in groups, and before a thorough union, a small yellow, or dark speck appears in each tubercle. This speck enlarges until it involves the whole tubercle. After a time, the whole of the tubercles are changed into a whole yellow mass, and finally into a whitish yellow color. This mass forms what is called the crude tubercle.

When the tubercles are few in number, they grow to a much larger size than when they are numerous. They have been found as large as a filbert or an almond.

The *granular tubercles*. These granular tubercles are nearly the size of a millet seed. They are round, colorless, and not transparent. They are numerous, and generally diffused through the whole of one lung. They are not in groups, and sometimes, from their immense number, form solid masses. In these masses the granulations are all distinct and separated from each other by cellular substance. They pass into yellow and dark tubercles.

These miliary granulations are never found except in lungs in which other larger tubercles exist at the same time.

Accidental circumstances may change the color of tubercles. Thus they are changed
yellow by jaundice, brown by gangrene, and black pulmonary matter sometimes makes grey spots by mingling with the yellow whitish color of the tubercle.

The **grey tubercle**. This is frequently found around tuberculous excavations. This infiltration is said to exist sometimes where tubercles do not. In some cases, tuberculous masses are found where there has been no previous development of miliary tubercles. Such masses are of a grey color and quite impermeable by air. They are nearly as compact as cartilage, and the vesicular structure of the lungs is quite destroyed by them. As they begin to soften, there are seen small, yellow, opaque specks. These go on softening and increasing till the whole mass is changed into a yellow tuberculous matter. There is also the jelly-like infiltration. This is found frequently between the miliary tubercles. It is humid, colorless, and appears like a fine jelly. It continues to thicken, and finally becomes converted into tuberculous matter. These masses often occupy almost the whole of one lobe, while they neither change its shape nor produce any protuberance on its surface.
The tubercles, however formed, finally soften, and become thick, cheesy, and are converted into pus. The softening begins in the centre and gradually advances towards the surface, and finally changes the whole into pus. The pus is not all alike—some is thick and without smell, and yellow, some more liquid, less transparent, colorless, or streaked with blood. It has a strong resemblance to whey, having small pieces of curd floating in it.

When the tuberculous matter is formed, it finds its way into the bronchial tubes. The passage is always smaller than the excavations, and, consequently, the passage and excavation are both fistulous. In this manner numerous irregular excavations are formed, sometimes extending wholly through the lung.

There is also the encysted tubercle. In this the cartilaginous membrane is very perceptible before the softening of the tubercles. In these the tuberculous matter, before it is thoroughly softened, adheres strongly to its sides, and when it is removed, the membranes are smooth and polished, though uneven and rugged. Sometimes these cysts become ossified.

Sometimes, when there exists a large number
of tubercles in the lungs, death will ensue before they become softened so as to discharge their contents into the bronchi. In this case, there can be no ulcerous excavations. If the number of tubercles be small, they may be all found excavated after death.

The development of tubercles is generally successive. Laennec enumerates them as existing in the following manner. 1. In a state of granulations, either grey or colorless, and semi-transparent. 2. Grey, but large and yellow, and opaque in the centre. 3. Yellow and opaque throughout, but still firm. 4. In a state of grey tuberculous infiltration, gelatinous, or yellow. 5. Softened, especially in the centre. 6. In the state of excavations more or less completely empty.

Tubercles usually begin to develop themselves in the top of the upper lobe of the right lung. (Some physicians have found them oftener developed in the left.) Here, we usually meet with excavations of a large size. There is scarcely any part of the body wherein we do not find tubercles in a phthisical subject.

They are generally found in the following order of frequency. In the bronchial, medi-
CONSUMPTION.

astinal, cervical and mesenteric glands, and in the other glands throughout the body—in the liver, in the prostate, in the surface of the peritoneum and pleura, the epidermis, vasa deferentia, spleen, heart, the brain, and cerebellum, the bodies of the cranial bones, the substance of the vertebrae, in the ligaments, and, finally, in those tumors called scirrhus or cancer.

It has long been supposed that tubercles were the result of inflammation. The ancients, and some eminent physicians of modern times, have maintained that tubercles are the result of inflammation, but this opinion is now given up by the best pathologists. It has been given up for the following reasons. It is seldom we find phthisis supervene to pneumonia; in post-mortem examinations tubercles have rarely been found in the lungs of those who have died of pneumonia; the intermediate degrees between inflammatory engorgement and pulmonary abscess have never been discovered. In some cases, though the inflammation cannot produce tubercles, it may hasten their development.

But "the single fact," says an eminent pathologist, "of the existence of chronic pneumonia, very different from the tuberculous affection,
both in its anatomical characters and symptoms, is sufficient to decide the question in the negative."

The idea that pneumonia, or inflammation of the lungs, or colds, or catarrhs, *produce* phthisis, or consumption, where there was not a hereditary tuberculous diathesis, or predisposition, cannot be sustained. There is no evidence to substantiate such an opinion. Persons have phthisis who have not had a cold for years, and many, who frequently have colds, never have phthisis, but live to old age. If phthisis sometimes occurs in persons subject to colds, there are a far larger number who have colds frequently, and yet never have phthisis.

It is, however, true that the first development of phthisis is by the signs of a cold. The *first* cold of a person is a critical state, not as causing phthisis, but as manifesting the development of it in the lungs. I should sooner think that a cold might be a preservative against consumption, than the cause of it.

I now come to consider the question, whether phthisis, or pulmonary consumption, is curable by nature or not.
Laennec's opinion is, that if tubercles are the result of inflammation, pleurisy would seem more likely to prevent, than facilitate, the formation of them into pulmonary consumption; since it extinguishes nearly all their vital energy. He thinks pleurisy is often the effect of tubercles, but not the cause of them. Tubercles are not the effect of pleurisy. So that, if the old opinion, that tubercles are produced by inflammation or irritation were true, then pleurisy would tend to prevent their ending in consumption, and consequently be sought rather than dreaded.

The development of tubercles may be retarded, both by nature and art. Laennec says, "In some cases consumption is cured by nature, in the last stages, after the softening of the tubercles and the formation of an ulcerous excavation."

His supposition was, that the progress of the softening of the tubercles was arrested by the supervening of catarrh. He says, "While examining the lungs of subjects that had suffered from chronic catarrh, I have observed irregular cavities lined by a semi-cartilaginous membrane, and these cavities accord perfectly with tu-
TUBERCLES.

berculous ulcerations, except that they were empty. I found that such subjects all referred their catarrh to a severe previous disease, which bore the character of consumption so much as to make their case, at the time, appear desperate. On the other hand, in subjects dead of consumption, whose disease had lasted very long, we very commonly find similar excavations entirely lined with a similar cartilaginous membrane, and free, or almost free, from tuberculous matter. The formation of semi-cartilaginous membrane on the surface of tuberculous excavations must be considered as a curative effort of nature.” He considers the cicatrices thus formed as injuring the general health but very slightly.

It seems proved by this writer, that catarrh, supervening upon phthisis, often relieves or remedies it. As evidence of it, he gives several instances of dissections where ulcers of the lungs were cured by transformation into semi-cartilaginous fistulae.

From the above remarks we are warranted in believing that nature may effect a cure, even when we are assured, from percussion and auscultation, mediate and immediate, that consumption really exists.
Laennec's twenty-fifth case is entitled, *Tuberculous Phthisis Cured*. It is an incontrovertible proof that phthisis can be cured, and is cured, by nature.

In the Edinburgh Medical and Surgical Journal I find the following:

"Dr. J. Hughes Bennett states, that of seventy-three bodies he has examined since last November, he found puckerings or concretions in the lungs in twenty-eight. They were combined with induration alone in twelve, with cretaceous or calcareous concretions in sixteen. They occurred in the right lung seven times, in the left lung twice, and in both lungs nineteen times. He thinks that these observations, conjoined with those of Roger and Boudet, serve to establish that the spontaneous cure of pulmonary tubercle occurs in the proportion of from one-third to one-half of all the individuals who die after the age of forty. Dr. Bennett observes, that as empirical means for accomplishing a cure have notoriously failed, perhaps a study of the method in which nature operates may be more successful. There seems no reason why cavities in the lungs should not heal with the same frequency as ulcerations or abscesses in other internal organs, if the further
deposition of tubercle could be arrested. This is only to be accomplished by overcoming the pathological conditions on which the deposition of tubercle depends. These are—first, a morbid state of the blood, the result of imperfect nutrition; secondly, local inflammation, by means of which an unhealthy exudation is poured out that assumes the form of tubercular or scrofulous matter. The indications for treatment are—1st, To overcome the dyspepsia and acidity in the alimentary canal; 2nd, To furnish the material necessary for the formation of a healthy chyme; and 3rd, To combat the local inflammation. The dyspepsia and vomiting are often to be alleviated by naphtha. He attributes the good effects of this remedy to its power of allaying the irritability of the stomach, and thus enabling the patient to take nourishment. In following the second indication, he now, after four year's employment of it in private, as well as in dispensary and hospital practice, strongly recommends cod-liver oil as a most valuable remedy.”
PART II.

CHAPTER I.

AIR.

The lungs are constructed for the purpose of respiration. They are as much adapted to breathing as the ear for hearing, tongue for tasting, and the hands and feet for their proper uses. As soon as the air strikes them, when they are in health, they commence the work for which they were designed by the allwise Creator; and when they cease that work, all vital action ceases also. As the lungs were made for breathing, so the atmosphere is adapted to being breathed. Had the lungs been constructed precisely as they are, with all their adaptation to respiration, still a fluid was necessary in order that this wonderful organ might come into play. This wonderful fluid the same beneficent Being has provided in the atmosphere. But it is a heterogeneous fluid, impregnated with animal, vegetable and mineral substances, dif-
fused in endless variety through all its different strata. It is ever varying in its properties, in density, temperature and impregnations. Hence, if we consider that in every breath we inhale this fluid, expanded over the most delicate blood vessels in the lungs, we can readily see that its influence upon our health must be great.

In our climate a large proportion of the diseases which prevail originate, or are very much influenced, by atmospherical changes. The chief guards against these changes will be pointed out in another part of this work, while those things which pertain to the importance of the air which we breathe, will be noticed under the present head.

The necessity of pure air is of the first importance. It has already been said that a scrofular diathesis is the foundation of Pulmonary Consumption. I was forcibly struck with the following remarks on this subject, in a recent article in Chambers' Journal, on the first volume of a Report of the Health of Town's Commission. It is as follows:

"The startling facts brought forward as to the creation, we may call it, of scrofulous affections by impure air, are new, and present some
of the gloomiest features of the volume, inasmuch as they prove the fatal effects of the pernicious influences complained of, in the existence of a deteriorating population, diseased in themselves, and bequeathing disease to a still more wretched posterity. Joseph Toynbee, Esq., one of the witnesses examined, appears to have devoted special attention to this part of the subject: on being asked as to his observation of 'the effect of defective ventilation,' he replies—'The defective ventilation appears to me to be the principal cause of the scrofulous affections, which abound to an enormous extent amongst our patients. When I have had a scrofulous patient come before me, I have always been able to trace this as one of the agents.' He cites the work of a French physician, M. Baudeloque, in which it is stated 'that the repeated respiration of the same atmosphere is the cause of scrofula; that, if there be entirely pure air, there may be bad food, bad clothing, and want of personal cleanliness, but that scrofulous disease cannot exist.' The following facts are further quoted: — 'The development of scrofula is constantly preceded by the sojourn, more or less prolonged, in air which is not sufficiently
freshened. It is impossible to deny that hereditary disposition, the lymphatic temperament, uncleanliness, want of clothing, bad food, cold and humid air, are of themselves circumstances non-effective for the production of scrofula.

"When it is seen, on the other hand, that this disease never attacks persons who pass their lives in the open air, and manifests itself always when they abide in an air which is unrenewed, and this, whatever may be the extent of other causes, it appears evident that the non-renewal of the air is a necessary condition in the production of scrofula. Invariably, it will be found on examination, that a truly scrofulous disease is caused by a vitiated air, and it is not always necessary that there should have been a prolonged stay in such an atmosphere. Often a few hours each day is sufficient; and it is thus that persons may live in the most healthy country, pass the greater part of the day in the open air, and yet become scrofulous, because of sleeping in a confined place, where the air has not been renewed. This is the case with many shepherds. It is usual to attribute scrofula, in their case, to exposure to storms, and atmospheric changes, and to humidity. But atten-
tion has not been paid to the circumstance, that they pass the night in a confined hut, which they transport from place to place, and which protects them from wet; this hut has only a small door, which is closed when they enter, and remains closed also during the day; six or eight hours passed daily in a vitiated air, and which no draught ever renews, is the true cause of their disease. I have spoken of the bad habit of sleeping with the head under the clothes, and the insalubrity of the classes where a number of children are assembled together.'

"An instance is adduced in corroboration: 'At three leagues from Amiens lies the village of Oresmeaux; it is situated in a vast plain, open on every side, and elevated more than 100 feet above the neighboring valleys. About sixty years ago, most of the houses were built of clay, and had no windows; they were lighted by one or two panes of glass fixed in the wall; none of the floors, sometimes many feet below the level of the street, were paved. The ceilings were low; the greater part of the inhabitants were engaged in weaving. A few holes in the wall, and which were closed at will by means of a plank, scarcely permitted the air and
light to penetrate into the workshop. Humidity was thought necessary to keep the threads fresh. Nearly all the inhabitants were seized with scrofula, and many families, continually ravaged by that malady, became extinct; their last members, as they write me, died rotten with scrofula.'

"A fire destroyed nearly a third of the village; the houses were re-built in a more salubrious manner, and by degrees scrofula became less common, and disappeared from that part." Other facts are brought forward, all tending to prove the fatal effects of vitiated air, and the beneficial results of a constantly pure atmosphere, not only on the health, but on the morals of the people. Other authorities — Dr. Blacke, Dr. Blakely Brown, Dr. Duncan, and Professor Alison — fully confirm these statements; in addition to which we are informed that 'defective ventilation may be considered one great cause of all the diseases of the joints which we so frequently meet with, as well as of the diseases of the eye and skin — shingles, lepra, and porrigo, or ringworm. Besides the eye, the ear is injuriously affected by vitiated air, which thus becomes the cause of many cases of deaf-
ness. It is a fact, that at least two times more of the children of the laboring classes are affected by the ear-ache and deafness, than of children of the rich and better-conditioned classes, less exposed to the like influences.'"

This article is of vast importance in our present position, if scrofula be, as it has been supposed by the best medical practitioners, the foundation of tubercular consumption. It inculcates the absolute necessity of pure air, if we would avoid this formidable disease.

I here adduce another quotation from an eminent writer.

"Every population throws off insensibly an atmosphere of organic matter excessively rare in country and towns, but less rare in dense than in open districts; and this atmosphere hangs over cities like a light cloud, slowly spreading, driven about, falling, dispersed by winds, washed down by showers. It is not vitalis halitus, except by origin, but matter which has lived, is dead, has left the body, and is undergoing, by oxydation, decomposition into simpler than organic elements. The exhalations from sewers, churchyards, vaults, slaughter houses, cess-pools, commingle in this atmos-
phere, as polluted waters enter the Thames; and, notwithstanding the wonderful provision of nature for the speedy oxydation of organic matter in water and air, accumulate, and the density of the poison (for in the transition of decay it is a poison) is sufficient to impress its destructive action on the living, to receive and impart the processes of zymotic principles, to convert, by a subtile, sickly, deadly medium, the people agglomerated in narrow streets and courts, down which no wind blows, and upon which the sun seldom shines.”

“A small quantity of organic matter can only escape with the carbon and aqueous vapor (37½ ounces daily, according to Dalton) from the skin and lungs. The presence of a putrid atmosphere is perceived by the senses in parts of all towns; and Liebig, by operating on large masses of the atmosphere, has obtained ammonia, which is a product of the putrefaction of animal matter. The existence, therefore, in the atmosphere of animal matter, is incontestable; and, as it must be most dense in the densest districts, where it is produced in the greatest quantities, and the facilities for decomposing it in the sunshine, and sweeping it away by cur-
 rents of winds, are the least, its effects — disease and death — will be most evident in towns, and in the most crowded districts of towns. It is to this cause that the high mortality of towns is to be ascribed; the people live in an atmosphere charged with decomposing matter of animal and vegetable origin."

The night air, as well as that which is impure, should be avoided. The practice of rushing from crowded and heated apartments, especially when in a state of perspiration, is most pernicious. But as people, especially the young, will not avoid these nocturnal exposures, the medical practitioner must counteract their deleterious effects as well as he can. None who indulge in them can be certain of being preserved from consumption, but the following remarks may be serviceable to those who thus expose themselves.

The body should be as warm as possible short of perspiration. If the body is suffered to grow cold by lingering about the vestibules and doors before venturing into the outdoor air, the person will be much more likely to suffer from the exposure. The body should be comfortably clothed.
The lungs should be guarded. Instead of this, men go with half a dozen thicknesses over their backs and other parts of the body, and but a single covering, and that often a thin one, over the breast. This delicate organ is exposed to a change of temperature of from thirty to forty degrees difference in a single moment. This is indeed a great change, and it is not a little singular that thousands should be so careful in covering the surface of the body with one garment after another, and never think of the delicate texture of the lungs, which is immediately exposed to the freezing blast of a northern winter. This seems the more singular, when we know that the lungs suffer much oftener from exposure than any other organ. It is better to avoid such sudden atmospheric changes, if it can be done. But when this is not done, it has been recommended “to guard the organs of respiration from the direct influence of the night air, by such mufflings about the face, as may not only retain a portion of the air expired from the lungs each time, but communicate a degree of warmth to each inhalation of atmospheric air.” This may
do good, but I should much prefer avoiding the exposure.

Persons who are exposed should always walk with a quick step. The writer of this, has always been careful to walk so briskly, as to keep up the internal heat, so that he has seldom suffered, though out in all kinds of weather, both by day and night. He has been frequently asked, why he walked so swiftly? In this way, diseases, not of the lungs only, but of all the internal organs, are prevented.

“After the evening walk, some mild warming liquid should be taken. This helps restore the balance of the circulation, which will always be varied by exposing ourselves to a cold atmosphere.”

After having taken all possible precaution against night air, the next thing which should demand attention, and which is of considerable importance, is to avoid the Easterly winds. Having dwelt for the last ten years on this bleak coast, and been an invalid, I have watched our Easterly winds somewhat narrowly, and I think I may safely say, that I have scarcely known a day, from the middle of March to the 1st of
June, when the wind has not been from the East some portion of the day.

There is something very peculiar in these winds—something which interferes with the functions both of body and mind. I am a complete thermometer for an Easterly wind, and, I suspect, in this particular, my own case is not widely different from others of delicate nerves and slender constitution. I can usually tell whether the wind is East, or not, before rising from my bed. Its deleterious effect upon the mind is no less than on the body. It renders a man sad, dumpish, dejected, angry, waspish and melancholy. The best remedy we can use against these winds is the bath, warm clothing and proper meats and drinks, of which I shall speak in another place.

"While we would guard against the deleterious effects of an atmosphere vitiated by being often respired," as above stated, "we would caution persons against sitting in a current of air, or having a draught pass through the room. We have traced many grave diseases to such a source. An apartment may be well ventilated without a stream of air constantly passing through it."
By a proper and judicious use of the bath, clothing, and diet in eating and drinking, we can inure the constitution to almost any climate, as will appear in the sequel.

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CHAPTER II.

*BATHING.*

We read of the fabled ages of gold, silver and iron. Ours is the age of water. This is the theme in city and country. Cold, pure, soft water, the universal solvent, the best drink for man and beast, the great promoter of cleanliness, health and happiness.

It is not designed in this article to speak particularly of Hydropathy, as it is generally understood, nor of the benefit of Cold Water Armies, how good and valuable soever they may be in their places. The special object of the writer is to speak, as a physician, of the Bath, as conducing to the comfort, health

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BATHING.

and happiness of man, and as a preventive and remedy of disease.

The skin, which is the covering of the body, has been considered its "fundamental organ" by some eminent physicians. All acknowledge the importance of cleanliness, but few know the sympathy between the skin and the internal viscera. There is an intimate sympathy between the skin and the lungs. This is often seen in the case of those persons who are troubled with a severe cough during the cold season of the year, and who are free from it in the warm season, when the perspiration from the skin is profuse. The first effect of external impressions from the atmosphere is on the skin and lungs. We are unable fully to explain this sympathetic effect between the skin and lungs and other viscera. But, that such a sympathetic action takes place between these organs, is demonstrated in the cold bath. When the body is immersed in water of a temperature considerably below that of the body in its natural state, the vessels on the skin are rendered torpid, and the blood is thrown upon the internal organs. At the same time, a sympathetic torpor takes place in the capillary vessels of the lungs, which
occasions the *panting* for breath experienced upon suddenly entering the cold bath. But reaction soon takes place, and the functions of the skin are renewed with increased energy. This is but a repetition of what takes place in sudden atmospheric changes. In our climate, proverbial for its sudden changes, the *lungs* are the organs which suffer most. The delicate and feeble, especially females who usually go lightly dressed, suffer more than others from aerial vicissitudes operating upon the lungs through the medium of the skin. I should in this place say more about *diseases of the lungs* (of which I have personally had some experience), did I not design to speak more at large on *pulmonary consumption*, should opportunity present, at a future time. My object at present is to show only the connection between the skin and the lungs, as preparatory to what may be said about bathing. There is also an intimate sympathy between the skin and stomach, kidneys and liver. But this will not now be considered.

In the greater part of the derangements of the lungs and other viscera, we shall find the functions of the skin first impaired. The insen-
sible, and even sensible, perspiration is checked. The balance of the circulation is deranged. Hence the chills and flushes which alternately succeed each other. Here commence the slight effects of pulmonary difficulties, and these troubles are in proportion to the violence of the atmospheric influence upon these organs, through their sympathy with the skin. This point being settled, we can readily see the course of relief pointed out, and the remedial measures to be pursued. *It is to restore the proper functions of the skin.* This may often be accomplished by various kinds of bathing, but the judicious use of the bath exerts its most salutary effects in *preserving* these functions. It is often a remedy for disease, but it is more than a *remedy* for disease by *preventing* it, inasmuch as, according to the old proverb, "an ounce of prevention is worth a pound of cure," and as, he is a greater surgeon who *saves* limbs than he who *cuts them off*. Upon this principle, it is said, the Chinese pay their physicians so long as they themselves are in health, but take away their salaries as soon as they are sick. Many of the most grave diseases, which "flesh is heir to," are cutaneous, and would never exist, were proper measures
employed to cleanse and purify the skin. The truthfulness of this maxim undoubtedly led the Jewish Lawgiver and the Arabian Prophet to prescribe so many ablutions in their canons. It is not intended by this remark to place the writings of Moses and Mahomet upon the same footings, but, simply, that in their frequent purifications of the surface of the body, both of them prescribed a course, and made compliance with it a religious duty, which was calculated to promote the health, happiness and longevity of their followers. Bathing was much practised by the ancient Greeks and Romans. They expended vast sums of money, not from the coffers of individuals only, but also from the public chest, in erecting stupendous and beautiful baths. These, at the present time, like all the other works of art in those countries, are in ruins. Still, the ocean, lakes and rivers supply their places.

It is not simply in reference to cleanliness that I would call the attention of the public to the bath, but as a means of preventing and removing disease. I suspect the bath is in much more frequent use in this country now than it was a quarter of a century since. But
its use at the present time is little in comparison with what it is in the Eastern world. According to modern physicians and others who have travelled in Asia and the northern parts of Europe, baths are frequently used at the present time. One of the most eminent physicians of modern times says, "It is a mistake to suppose that it is only in a hot climate, where the perspiration is abundant, that the cleanliness of ablutions is necessary. In the wilds of Russia the peasant steams himself in a hot vapor, and then rolls himself in snow. By early inuring himself to these transitions, he preserves health to old age, and seldom requires medicine."

No one can study and understand the proper functions of the skin and the sympathetic influence exerted by it on the internal organs, without realizing the truth of what is said above relative to the effects of the bath in preventing and curing disease. It is, beyond doubt, the best preventive of disease known, when properly used, and it certainly exerts no inconsiderable influence in removing disease. But it should never be resorted to by the invalid without the advice of an experienced and judicious physician. I mean, when there is the slightest probability
that any of the internal organs are diseased, or greatly debilitated. I have known both the cold and warm bath prove highly injurious to invalids. I think it would not be too much to say, I have known them to convert slight diseases, and those that might have been remedied by proper treatment, into grave and incurable ones, especially the cold bath, when used improperly and indiscriminately. To point out when bathing may be employed with safety and utility, is one important object of this essay.

The cold bath — when may it be safely and usefully employed? This question may be the most properly answered by the effects which its use produces.

It may be used by sponging a part or the whole surface of the body, and wiping and rubbing the skin, first with a soft napkin, and then with a coarser one, or with a brush, or with the hand, which some consider the best flesh brush. This manner of using the cold bath is generally safe, if commenced in the warm season. In the case of those who are feeble, it is the best and safest way of applying cold water to the surface of the body.

A second method of using the cold bath is by
immersing, or plunging the whole body into the water. This produces a greater shock to the system than sponging the body. The blood is suddenly driven from the extremities and capillaries of the skin, and thrown upon the large vessels and trunks of the interior.

A third method is by showering or affusion. In this, also, the shock is greater than in sponging, and may exceed that of plunging if the amount of water used is considerable and descends from the height of a number of feet.

These three are the usual methods in which the cold bath is administered. In all of them the effect is similar in kind, though it may vary in degree. The shock given to the system produces a reaction in proportion to the strength and vigor of the constitution. The collapse of the capillary vessels is soon overcome by the power of the heart and arteries, and a general warmth and glow of the whole system succeed, which is both pleasant and salutary. A new and more vigorous impulse is given to the perspiratory vessels of the skin and glandular organs. The excretory vessels are roused to renewed action, and the whole system is invigorated,
which is evinced by a sense of elasticity, flow of spirits and pleasing sensations.

If this reaction takes place soon after the bath, it is the best indication of its beneficial effects. If a gentle glow or warmth immediately succeeds the shock of the bath, it is a sure proof of its utility; but if the reaction is slow in taking place, it is of doubtful benefit; and if it does not follow the bath at all, it is proof that the use of it, instead of having a salutary effect, is hurtful and dangerous. I have known instances where the bath has been persisted in for some time, when, instead of a glow, it was followed by a chill, and it was ruinous to the constitution. No person should use the cold bath, when, after bathing, it leaves the system cold or chilly. If there is any organic disease of the large viscera, such as the heart, liver, or spleen, or functional derangement of the heart, it will be injurious or dangerous to use it; and, as this may be the case while the invalid himself knows it not, he should never use the bath until he has been carefully examined by a skilful physician. The seat and cause of the disease should be thoroughly explored, and the chest and abdomen examined
by percussion, compression and auscultation, and all the physical signs of visceral disease strictly scrutinized, before he is advised to resort to seashooting or to the use of the cold bath in any of its forms. I cannot too strictly enjoin upon the invalid the absolute necessity of consulting his physician before he ventures upon an experiment on which his future health or life may be so dependent.

It is a good way for the invalid to commence with the tepid bath, and gradually lower its temperature, if its effects do not prove injurious, until it be of the coldness of the atmosphere.

The cold sea-water bath, or salt dissolved in the water, is always preferable to fresh water. This seems to depend on the stimulus of the salt upon the skin.

I do not think the greatest benefit of the cold bath is to be found in its proving a remedy for disease, though as such it is highly valuable. It is in preventing disease that its worth is preeminently seen. If commenced in infancy, almost any child may be inured to its use, and its constitution so tempered as to be but little affected by atmospheric vicissitudes. If commenced at adult age, before disease has begun
its ravages, or the constitution is greatly undermined, any one may so far harden himself to our climate that its sudden changes will do him but little injury. I consider the cold bath, if commenced early, and properly administered, as the greatest safeguard against the various diseases of our climate with which we are acquainted. If it be true, as has been said, of the Aborigines of this country, that they immerse their newly-born infants in cold water, it is, to say the least, not a very unwise or injudicious practice. No person can live in our climate without exposure to its vicissitudes, and there is no guard so effectual as the use of cold water in some way applied to the surface of the body. As a remedy in certain diseases, it is invaluable; such as small-pox, scarlet fever, measles and other rashes. In all these we may wash the skin freely with cold water, from the commencement to the close of the disease. It is thus rendered soft, the acrid matter passes off more freely through the pores, and the fever is abated. In small-pox the cold sea-bathing has been found highly salutary. Dr. Eberle, in his Practice of Medicine, on scarlet fever says, "The application of cold water to the surface of the body cannot be
too strongly recommended in the higher grades of this affection.” And he quotes the following passage from Bateman. “As far as my experience has taught me, we are possessed of no physical agent, by which the functions of the animal economy are controlled with so much certainty, safety and promptitude, as by the application of cold water to the skin, under the augmented heat of scarlatina and some other fevers. This expedient combines in itself all the medicinal properties which are indicated in this state of disease, and which we should scarcely expect it to possess, for it is not only the most effectual febrifuge, but it is in fact the only sudorific or anodyne which will not disappoint the expectation of the practitioner.” “I have had the satisfaction, in numerous instances, of witnessing the immediate improvement of the symptoms and the rapid change of countenance produced in the patient by washing the skin.”

The following quotation is from Dr. Warren’s book on the Preservation of Health.

“The application of cold water to the human body is beneficial principally in two ways; first, as a purifier; second, as a tonic. 1st, it purifies the body by removing from its surface
those excretions, which are continually poured out. The skin is an outlet, by which are discharged matters necessary to be thrown out of the system, for if retained, they would produce disease. These matters cause an incrustation over the surface of the skin, and this to a certain extent obstructs the little orifices, through which these exhalations take place. Physicians and surgeons are in the habit of observing deplorable instances of filthy concretions on the skin of poor patients, and this kind of neglect, unfortunately, is not wholly confined to the lower classes.

"Besides these exhalations, the surface of the skin becomes more or less charged with cuticular exfoliations, which ought to be daily removed. The linen taken from the body of a poor person is sometimes seen to shed a shower of flakes of separated cuticle. The regular removal of these substances not only gives a more free outlet to cutaneous exhalation, but the act by which they are removed, also serves to promote the healthy action of the capillary vessels of this organ.

"2d. The effect of cold water as a tonic is well known. The refreshing influence of water
applied to the face, neck, hands, and arms, is a matter of general experience. The operation of cold water, applied to the whole surface of the body, is to produce an agreeable and refreshing sensation. This is followed by a glow more or less considerable, depending partly upon the difference between the temperature of the water and that of the body, and partly on the state of the body itself, to which the application is made. Immersion of the hand, or any other part of the body, in cold weather in tepid water, is followed by a sense of chilliness, while immersion of the same part, for a limited time, in iced water, is followed by a sensation of positive heat. Immersion of a part, or the whole of the body in cold water causes an increase of vigor. This is particularly obvious in hot weather. When one, who is exhausted with heat and fatigue, plunges into cold water, or receives the affusion of it over the whole surface of the body, the languid frame is immediately invigorated and prepared for new labors. This change is probably attributable to a uniform contraction of the small vessels, and a more regular flow of blood through the relaxed organs, thus reviving their vigor.
"In the same way congestions, by which the vital actions are impeded, are removed, and this not only in the external or cutaneous portion of the body, but also by the reflex nervous action of Dr. Marshall Hall, or sympathy as it has been formerly called, in the great central organs, the heart, lungs, stomach and intestines. Thus a great many diseases may be removed in the incipient stage; for vascular congestions, or accumulations of blood in particular vessels, by which the circulation is obstructed, constitute the origin of a great number of diseases. All those who have been in the habit of using cold water know, that an incipient catarrhal affection often disappears on its judicious application to the surface of the body. This disease is a congestion of the blood in the vessels of the membrane lining the nostrils, trachea, and lungs, arising in this instance from the application of cold air to the surface of the body. When cold water is applied to the skin it produces increased circulation in this part, and the blood is thus diverted from the internal organs. A similar train of occurrences takes place in the germination of many diseases. The effect of the judicious application of cold water to the surface of
the body is, therefore, to relieve temporary languor, remove incipient disease, and give permanent tone to the animal system."

I now proceed to make some remarks upon the *warm bath*. Says the distinguished writer Dr. Johnson, "As the first instance of cold bathing, *as a remedy*, was that of Melampus bathing the daughter of the king of Argos; so Medea's cauldron is supposed to be the first record of the warm bath. From the derivation of the word, 'care destroyer,' and the fabulous stories of old age restored to youth by the effects of Medea's boiler, we may suppose that the *warm* bath was highly appreciated in ancient times." I have no doubt that a general use of the warm bath in our country would produce the most salutary effects upon the health and longevity of its inhabitants. The time will come when a change "so devoutly to be wished" will take place, and the bath be generally used. There are, at present, many objections which are utterly unfounded, but which must, nevertheless, be removed, before this desirable era will dawn upon us with its blessings.

It is objected to the *warm* bath, that it renders persons *effeminate and debilitated*. This
is proved to be an erroneous opinion, from the fact that in those Southern and Eastern countries where it is in general use, the inhabitants are healthy and live to a good old age. That the warm bath, like every other good thing, may be so abused, carried to such a pitch of excess, luxury and extravagance, as to prove deleterious, there can be no doubt. That it was carried to this extent among the Romans, is readily granted. But it was when they were luxurious in everything—when vice of every kind so abounded, that even the use of the bath, salutary as it is, could not save them. Then (as Music, the daughter of heaven, when she had been exiled from her proper place, has been made to serve the purposes of Satan,) the bath was made subservient to their sensuality and effeminacy. What good thing may not be abused? When used with moderation, it neither debilitates nor tends to promote effeminacy. In debilitated subjects, it strengthens the system and is much safer than the cold bath. It has already been said that the cold bath is improper and dangerous in many diseases. Not so, the warm. Its effects are the reverse of the cold. It elicits the blood to the surface, causing it to
fill the whole cutaneous system, and thus relieving the internal organs. It is very salutary after exhaustion. It improves the pulse, elevates the spirits, and increases the appetite.

As a remedy for disease, it is far preferable to the cold bath, but not as a preventive. It may be employed with safety in a far more numerous class of diseases than the cold bath. I have known it relieve, or greatly mitigate, among others, the following diseases: scrofula, indolent swellings of the joints or lymphatic glands, gout, incipient consumption, chronic obstructions of the liver and other viscera, old syphilitic difficulties, stone, inflammation of the bowels, and the whole host of cutaneous diseases, numerous as they are. A judicious use of the warm bath in the relief of diseases cannot be too highly appreciated.

To those who are not specially diseased, it is one of the greatest luxuries of life, and as such, it has ever been esteemed in the Eastern world. Homer tells us that Ulysses refreshed himself with the warm bath when he had returned home from his toils and wars. It may be administered at any time, but promotes perspiration the most when taken in the evening. It may be taken
to good advantage, when the person can retire immediately after it to bed. I think this the best time to receive the warm bath. If it be taken at any hour of the day, it should be followed by gentle exercise for an hour or more. There are various kinds of baths now administered, such as the Russian vapor, medicated, sulphur, iodine, &c. All these, when judiciously and properly used, may be serviceable and worthy of the attention of the valetudinarian or invalid.

Every person must see the great utility of purifying the skin, when the amount of perspirable matter which passes through its pores is duly understood, and the sympathy between that and the internal viscera fully appreciated. This sympathy has been glanced at in the former part of this essay. Lavoisier, a celebrated French chemist, and many others, have estimated the exhalations from the skin alone to be about two thirds of the whole amount of meats and drinks taken into the system. How powerful, then, must be the free perspiration from this covering of the body, to preserve the whole internal structure in health; and what a potent energy is it capable of exerting in relieving dis-
ease and restoring the deranged and disordered functions of the whole animal economy!

The Vapor Bath is spoken of in the following language by Dr. Erasmus Wilson, in his treatise on Healthy Skin.

"The vapor bath offers some points of difference from the preceding, in the circumstance of extending its influence to the interior as well as to the exterior of the body. The bather is seated upon a chair, in a position agreeable to himself, and the vapor is gradually turned on around him, until the requisite temperature (from 90° to 110°) is attained. The vapor is consequently breathed, and thus brought into contact with every part of the interior of the lungs. The vapor bath has undergone much improvement within the last few years, and its powers as an agent for the cure of disease have been increased by the discovery of various vegetable substances, whose volatile elements are susceptible of being diffused through the vapor, and, thus introduced into the blood, are made to act upon the system.

"I have lately had an opportunity of examining and testing the merits of some admirably-conducted baths of this kind, kept by Mr.
Sturgeon, of No. 3 New Basinghall street, and my opinion is strongly in their favor.

"Bathing and exercise are very closely allied to each other—they both stimulate the actions of the skin, and both, if carried too far, are productive of fatigue. Bathing, again, is indebted to exercise for some of its useful properties. In like manner, the rules of bathing and those of exercise are very similar. Bathing, to be efficient in preserving health, should be regular, should be commenced by degrees, and increased by a process of training, and should not be permitted to intrude upon hours devoted to some important function, such as digestion. It must not approach too near a meal, that is to say, if it be attended with the least fatigue; nor must it follow a meal too closely, three or four hours being permitted to elapse. The time occupied in bathing in cold water by invalids should not exceed a few minutes, ranging, perhaps, from two to ten; but persons in health may carry it to the point of satiety, provided always that they combine it with active exercise. The period for the tepid, warm, or vapor bath, is from a quarter to half an hour, unless special indications require to be fulfilled."
"Another curious and important law is associated with the influence exerted by the bath over the state of the pulse, which is, a power of absorption by the skin below the neutral range, and an augmented transpiration above it. The absorbing power is modified by various circumstances, such as the quantity of fluids already contained within the tissues of the bather, the state of the body in relation to food, activity of nutrition, &c. In this sense, medicated baths have the power of acting upon the system. The process is, however, slow, and requires long immersion when the water bath is used, but more active with the vapor bath."

I shall close this chapter on bathing by the following extract from Dr. Combe.

"The vapor bath is calculated to be extensively useful, both as a preservative and as a remedial agent. Many a cold and many a rheumatic attack, arising from checked perspiration or long exposure to the weather, might be nipped in the bud by its timely use. 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 pro-
ductive of great relief. Even in chronic pulmonary complaints, it is, according to the Continental physicians, 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. If one tenth of the preserving attention and labor bestowed to so much purpose in rubbing and currying the skin of horses, were bestowed by the human race in keeping themselves in good condition, and a little attention were paid to diet and clothing, colds, nervous diseases and stomach complaints would cease to form so large an item in the catalogue of human miseries.”

* These baths are now administered, in great perfection, at the office of the Journal of Health, No. 12 Franklin Street, Boston; also by Dr. A. Hunting, 24 Broad st., Providence, R. I.
CHAPTER III.

DRESS.

The next thing which we shall mention, as a guard against consumption, is dressing properly.

Light dresses, unless in very warm weather, should not be worn. By commencing, however, in childhood, we may become habituated to the use of very little clothing. I once asked an Indian from Maine, who was visiting a town in this vicinity, when it was very cold, if he was not cold, having little covering upon his arms and legs. He replied, "Why is not your nose cold?" There is much good sense and true philosophy conveyed in this thought. If we should accustom ourselves to a greater uniformity in clothing through the year, it would tend much to promote our comfort and health. We should not be so sensibly affected by the changes of the atmosphere. The daily changes of dress have a still more pernicious effect than those of the seasons. I have been accustomed, for a number of years, to wear the same clothing, with the exception of an over-coat in win-
ter, through all the seasons, and have found it preferable to any other course. I have not found that inconvenience from changing, from woolen to cotton, which many have experienced. I have found frequent changes of my under garments to be of essential service. It excites the perspiration, and improves the functions of the skin. Silk is a bad material for an under garment. If it were entirely laid aside, it would much diminish scrofular and consumptive complaints. Woolen has generally been considered the best material to be worn next the skin. I think I have found cotton, however, to be preferable. Why it is so, I cannot say, but it certainly has a tendency to check rheumatic affections.

There is one point, to a consideration of which I would call attention, and that is, protecting the lungs. They are vital organs, and easily affected; but usually they are much less protected than other parts of the body. We frequently see gentlemen with fold upon fold over other parts of the body, while the chest, or lungs, or rather the whole front part of the chest, has but one, or at the most, two thicknesses over it; and those so constructed as to admit the air
freely to the skin. Many a gentleman has lost his life by a vest, coat and overcoat so constructed or worn as to display a white shirt bosom. No one can look into our streets, or crowded assemblies, without having this startling fact stare him full in the face. Thus the portion of the body which should be the best guarded, by that tyrant Fashion is left almost in a state of nudity.

All compression of the chest or waist, by unnatural bandages, or corsets or stays, should be laid aside. It affords one pleasure to be able to say that in this respect there has been a manifest improvement within a few years; and yet, I cannot omit in this place the following quotation from an excellent little book from the pen of Dr. John C. Warren, of this city.

"There is one part of female dress, the dangers of which have been made known, but which still, I fear, continues to be practised; I mean the girting of the chest.

"In what notions of beauty this practice took its origin, I am unable to discover. The angular projections formed by a tightly drawn cord, are in direct opposition to the models of Grecian or Roman beauty. In the flowing robes of the
Juno, the Vesta and Diana, every part is light and graceful. Nor have I been able to discover, in the representation of the Muses or the Graces, any habiliment which would lead us to believe they wore stays or corsets. The taste of the other sex is uniformly opposed to the wasp-like waist and the boarded chest. Yet, strange as it seems, there is scarcely a young lady of fifteen, who has not imbibed a disposition for this species of application, and scarcely a well-dressed lady of any age, whose chest is not confined in such a manner as to impede the motions of respiration and the free use of the muscles of the lower extremities. It is true, we are constantly told that they are uncomfortable without these appendages; but this only shows, what great inconveniences we can, by habit, become accustomed to. The Indian nations, who consider the flattened forehead to be a beauty, confine the heads of their infants between two pieces of board corded together, and the child exists under this pressure and may grow up. Yet there can be no doubt that diseases are generated by it; that some lose their lives and others their intellects. Still the fashion continues from age to age; for I have now
in my possession flattened heads, which must have lived some hundreds of years since, and others which have belonged to individuals of the existing generation.

"Nature has so contrived the human chest that there is no superfluous play of the parts composing it. Its movements are just sufficient to give such an expansion to the lungs and such an extent of oxygenation of the blood, as are adequate to the wants of the individual, under different occurrences. In females, the chest is shorter than in males; and to compensate for this, the motion of the ribs is naturally more extensive and more frequent. Whatever limits this motion, is therefore peculiarly injurious to the sex; especially as they are more disposed to consumption, and other chronic affections of the lungs. Now, the ligatures in the fashionable dress are placed precisely on that part, where the motion should be greatest; that is, below the middle of the chest. It is precisely here, that, in case of fracture of the ribs, when we desire to stop the movements of the chest, we apply a tight bandage;—though rarely do we venture to make it so tight as the ordinary corsets. The effect of such pressure, begun at an
early period of life, will be understood from what has been stated in regard to the spine. The bones must yield to it; their shape becomes permanently altered; the lower part of the breast contracted; the space destined by nature for the heart and lungs diminished; and what the fatal results of all this on these tender and vital organs are, every day's experience shows us. The influence on the health, though slow, is certain. It may not at once produce consumption; but it lays the foundation for ills it would pain you to hear, and me to describe. I will only say, by way of specification, that, among other diseases of which this is the fruitful germ, I have known three instances of perpetual headache, at last bringing on insanity and terminating in death. The immediate cause of the disease was the compression of the heart and great blood vessels, and the consequent accumulation of blood in the head.

"As young ladies are disposed to this practice, probably by fancies communicated by their companions, those who have charge of them should not only prohibit these applications—they should, for themselves, observe whether anything is wrong; and after the young ladies
have reached the age when dress is considered a primary object, they should resolutely oppose every encroachment on the rights of the vital organs, beyond what is required by a decent attention to the prejudices of the day.”

CHAPTER IV.

FOOD.

This is of the utmost consequence. I have never known a large and frequent eater to live long. I have now in remembrance many whom I have looked upon, and, had it not been for fear of breaking the tenth commandment, should have wished I could have possessed their constitutions, but who have gone down to the mansions of the dead; and it is believed almost solely by excessive eating. Many sons and daughters of Epicurus will smile at this, and live on in the same way, as they have done, and meet the same fate.

There is, unquestionably, too much animal food taken in the present system of gormandizing among us. I would not be understood as
advocating the ancient doctrine of Pythagoras, or of many moderns, that no animal food should be taken. Our anatomical and physiological frame proves the contrary. The Creator never designed that man should "live by bread alone," but has created meats for him. But, nevertheless, I have no doubt but that a large proportion of the diseases among us, originate in the use, or rather abuse, of animal food. Its injurious effects, however, are to be ascribed principally to excess in quantity. The following remarks perfectly harmonize with my own views on this subject.

"In the whole catalogue of human maladies, how many are brought on by deficiency in the quantity of food? Very few! While, on the other hand, there is hardly a disease that is not ameliorated by diminishing the usual scale of our sustenance. Nature herself, in most instances, inculcates this important lesson. When any of the numerous tribe of acute and dangerous diseases approaches, the appetite is immediately withdrawn altogether; and in a great proportion of the chronic ailments, it is impaired! How have we improved this hint of nature? By not only turning a deaf ear to it, but
by acting diametrically opposite to the salutary monition. No sooner does the appetite fail, than the cook, and confectioner, and chemist, are up in arms to redress this _grievous calamity_, and caudles, condiments, and tonics, pave the way for bleeding, purging, and water gruel!"

"Thousands," said the celebrated Boerhaave, "die of repletion to one from inanition. Large quantities of nourishing and stimulating food are taken to remove debility or give strength; when, in nine cases out of ten, that debility is only symptomatic of some organic or functional disease, which is aggravated, instead of being relieved, by the course pursued. Many fatal acute diseases arise from an over fulness, from too much blood: thus multitudes in the prime of life and vigor of health die suddenly, while we seldom hear of the feeble, abstemious valetudinarian being taken away by a _mysterious Providence._"

Where death does not occur suddenly from this excess, the constitution is undermined, and the way prepared for the introduction of that nameless multitude of distressing complaints denominated "nervous," and the speedy development of pulmonary consumption.
Let me say, then, in one word, I consider *too much* food to be one prominent cause of consumption. The remedy then, in this particular, is within the reach of every person, namely—such a degree of abstinence as, instead of producing, shall forestall disease.

Let any one read the life of Lewis Cornario, a noble Venetian, and, unless he lets appetite control reason, he will learn a lesson never to be forgotten. This man, at the age of forty years, found himself much debilitated by disease brought on by intemperance. After spending considerable money in search of health, and growing nothing better, he was told by his physicians that nothing could relieve him but a rigid course of *diet*. He put himself upon such a course, and lived sixty years with but one fit of sickness, and that was induced by his being over persuaded by his kind friends to increase his allowance two ounces in a day. He died at the age of one hundred years, in perfect health, or of old age.

I am fully aware of the unpopularity of inculcating these views. Man is not only "a bundle of habits," but a *slave of appetite*; and, were one to come from the dead and warn him
against indulgence, he would not be persuaded to forego it.

The following quotation is from a Treatise on Pulmonary Consumption and Scrofulous Diseases, by Sir James Clarke, one of the most eminent physicians of the age.

"An imperfect supply of food, or food of an innutritious quality, forms a very efficient cause [of scrofula], although we have rarely an opportunity of observing the effects of this alone; because, when the means of procuring proper nourishment are wanting, other causes are generally in action at the same time, such as residence in ill-ventilated and dark apartments, exposure to cold from imperfect clothing, &c.; all of which are often combined, and hence more speedily effect the deterioration of the health. But proper food, when taken in excess, or when of too exciting a quality, may also induce tuberculous cachexia in youth,—a circumstance which is not sufficiently attended to,—I may say not generally understood, even by medical men; nevertheless I hold it to be a frequent cause of scrofula. The adaptation of the food, in quality and quantity, to the age of the individual, as well as to the powers of the di-
gestive organs, is too little considered, and the evil consequences of this neglect are often evinced in the children of the wealthy classes, who are allowed an unrestricted use of the most exciting kinds of animal food, than which there cannot be a greater error. By a too stimulating diet at this early age, the digestive organs become over excited; the biliary and other secretions connected with digestion are diminished; congestion of the abdominal circulation, ensues; and the skin, sympathizing with the irritation of the internal surfaces, becomes dry and harsh, and cutaneous eruptions, or copious perspiration, are common consequences. The ultimate effect is often tuberculous disease, which is generally attributed to imperfect nourishment; and on this erroneous view steel and other tonics and stimulants are often prescribed, by which the evil is increased."

I shall conclude this item by saying a word about the time of taking food. Breakfast should be taken early, dinner as near the middle of the day as possible, and a light supper two or three hours before retiring to bed, and no lunch, cake, or "tit bits" between meals. Every well-informed physiologist knows that this eating in
advance, or between the regular meals, is productive of immense evil.

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CHAPTER V.

DRINK.

It has been of but little use to descant upon the derangements of mind and body which arise from excess in inebriating drinks. Moralists, divines, physicians and philosophers, have long and often protested against them. The maniac, the dropsical and diseased of every kind from this cause, meet our eye in every street. The groans of the suicide, the once affluent, now in the rags of squalid poverty, strike our ears and meet our eyes in every retreat, work-house, jail and hospital throughout the land. The ties of nature, morality and religion, are daily severed by the inebriating bowl. "There is a character, a manner, an aspect in the inebriate, even when sober, which stamps him unequivocally. He becomes heavy and awkward in his gait; bloated in his countenance; his eyes and eyelids are inflamed; he falters in his speech; his nose is red; his complexion sallow; his face covered with eruptions or excrescences; his ab-
domen rather tumid; his breath fœtid; his urine often turbid and sedimentous; his skin and muscles flaccid; his hands tremulous. Finally, if no particular organic disease becomes prominent, he emaciates, and is overtaken by premature old age."

But the object now before us is not to lecture against intoxication.

Tea and coffee have been often inveighed against by physicians and reformers, but they are not as deleterious as they are often represented to be. I would, however, advise persons predisposed to consumption to dispense with their use. They enervate and injure the nervous system.

Pure, cold, soft water is infinitely the best drink, and that should not be taken in too large quantities, especially with our food. It is better not to take drink with our meals. All the changes in our drink from clear water, are for the worse and not for the better.

CHAPTER VI.

EXERCISE.

Our systems cannot long be preserved in health without exercise. Philosophers and phy-
sicians in all ages have inculcated its importance, in guarding against the encroachments of disease. Those in health should daily take exercise in the open air.

"By toil our long-lived fathers earned their food, Toil strung their nerves and purified their blood."

To the husbandman, or him who labors in any active manual employment, nothing need be said on the necessity and importance of exercise. Such experience its utility without troubling themselves about it. But with the invalid and the sedentary, the case is far different.

Gymnastic exercises were in much repute among the ancient Greeks, and some other nations; and they have been highly beneficial. They are coming into good repute in our country, and in our own city. Pedestrian exercise is highly valuable; but for the valetudinarian and sedentary, riding on horse-back is the best method of exercising the trunk.

But for the class of persons for whose more especial benefit I am writing, much caution should be observed in taking exercise. By neglecting this, much injury is frequently done.
The attempt to strengthen the constitution by vigorous exercise taken at intervals, is frequently very pernicious. Galen, in his discourse to Thrasibulus, speaks against the exercise of the Gymnasium. Violent exercise is frequently as injurious as indolence to the feeble, and those predisposed to consumption. Aneurisms of the heart and arteries are often produced by violent exertion in early life. Sudden and over-exertion should be carefully avoided by all nervous persons where there are indications of functional or organic diseases, and palpitations, shortness of breath, and flushings of the face, are frequently indications of such derangements.

"It is with exercise, indeed, as with food and drink. By long habit we may become gluttons and drunkards, apparently with impunity; and so, by early and long continued habit, we may become capable of walking a thousand miles in as many consecutive hours, or of laboring hard sixteen or eighteen hours out of the twenty-four. But although no organ or part gives out at the time, we are inevitably laying the foundation for future diseases in all these instances. If habit, then, cannot secure us from the injurious effects of inordinate exer-
EXERCISE.

*exercise*, how can we expect to escape when we fly to it, or indulge in it at irregular periods? In fine, moderate and slow exercise in the open air is extremely salutary; but where it is carried to the length of much accelerating the velocity of the circulation, it endangers derangement of the heart, lungs, brain, or any weakened viscus, in valetudinary constitutions." The above extract is from Dr. James Johnson.

I would here remark, that almost any person may, by commencing early and persevering in an active course, train himself, so as not only to bear this kind of exercise with impunity, but, also, to find it of great service to him. Even the vigorous exercise of *running* will have a happy effect, in some cases, by expanding the chest. Dr. John Armstrong, an eminent practitioner of medicine, and who had much experience in consumptive cases, says, "By causing a child to lie on the floor, with the arms stretched out, for half an hour, twice a day, and by using the dumb-bells, and all exercises which are calculated to increase the strength of the muscles of the chest, and trunk, as dancing, riding, fencing, sparring, the breathing will be benefited; and it should run very fast to make
it long breathed. You will generally find it surprising how greatly the breathing is improved by the expansion of the chest."

I shall have occasion to speak of this again, when I come to treat of mechanical measures. It should be recollected that Dr. Armstrong is here speaking of a child, which will bear vigorous exercise better than an adult. I would, however, recommend to persons predisposed to consumption, gradually to increase the power of their exercise, as well as the length of it. If they can accustom themselves to it, without injury at first, to any vital organ, so as to compel them to pant for breath, it will aid in expanding the lungs.

Some years since, I advised a young student to take more bodily exercise, as I found he was suffering from inaction. The next thing I heard was, that he had walked off twenty miles very quickly and much to his injury, as it was a far greater amount of exercise than he had taken at once for a long time.

Persons of sedentary habits very frequently fly to the axe, or hoe, or the most vigorous exertion, at intervals, to promote health. They labor under a great mistake. The exercise of
the invalid, and of the sedentary, should always be moderate. *Pedestrian* exercise, where it can be borne, is preferable to any other. Where the strength is inadequate to *that*, passive exercise, such as riding, sailing, swinging, &c., should be our resort.

It has already been stated, that certain kinds of labor tend to produce or develop consumption. The following remarks by J. R. Bennett, in the British and Foreign Medical Review, upon Dr. Guy's paper on the influence of employment in the production of phthisis, are worthy of attention.

"The ratio of pulmonary phthisis to all other diseases, is highest among men exposed to the inhalation of dust, and high among the intemperate. The age at which the disease occurs, is early in proportion as the occupation is such as to present a high ratio of cases. The practical inference deducible from these observations is, that the predisposed to phthisis should choose out-door occupations, and among in-door employments those entailing most exercise, and that they of all others should avoid intemperance and inhalation of dust."

In the British and Foreign Review, also, we
find the following, upon the same subject:

"The effects of sedentary employments in inducing phthisis, are seen in the manufacturing town of Lille. Here the weavers, lace-makers, embroiderers, &c., die phthisical and scrofulous in great numbers. The General Hospital there presents a remarkable proof of the fatal effects resulting from deficient exercise. The building is also an hospital or asylum for foundlings. The infants received here are sent into the country, and on attaining a certain age, are brought back to be educated. The girls are employed in spacious apartments at sedentary employments, the boys go out to follow different trades in the city. The latter, free to go about, and with ample scope to exercise; are strong and robust; the former are pale, languid and chlorotic. They seldom die of acute disease, but suffer from scrofulous affections, and especially caries of the vertebrae. The employment in mills generally, is unhealthy in proportion as the rooms are narrow, dark and crowded, the labor prolonged, and the labor light, or rather, not demanding much muscular effort."

Dr. Warren remarks on this subject:

"There is a class, which has risen into exis-
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In a few years, to whose condition I feel myself called on to advert. A large number of persons in this country have lately engaged in the labor of manufactories. The establishments, in which these labors are carried on, are, it is well known, better regulated than those in the Old World, and the amount of health of the individuals employed in them is undoubtedly greater. The operatives necessarily employ sufficient bodily exercise.

Notwithstanding these favorable circumstances, no one, I think, will maintain, that they possess so robust an appearance, and enjoy so high a degree of health, as do the members of families, both male and female, who are occupied in the pursuits of agriculture. The difference in the influence of these occupations is attributable to the difference in the variety of labor, and to that in the atmosphere which is respired by these classes. As to the former of these circumstances, no important changes can be expected, but in the latter much improvement may be made.

The operatives in our manufactories, especially females, ought to form and pursue a regular plan of exercise in the open air during the
intervals of labor. This plan, I am aware, will seem to impose on them an additional burden, but the practical effect would, I am confident, be beneficial. A walk abroad two or three times in the day, at all seasons, would bring into action other muscles than those which are usually exerted in their daily toil, would give fresh vigor to the circulation of the blood, and inspire them with new cheerfulness in their monotonous routine. In this way it may be hoped that an impending physical degeneration may be avoided in a large and interesting portion of our society."

"Exercise during the early period of life should be regularly enforced, or rather the natural disposition to exercise in young children of both sexes, instead of being repressed, should be encouraged in every variety of form. Exercise, when practicable, should take place in the open air; even young infants should be carried into the air soon after birth, and should be taken out daily. Every family possessed of a moderate competence should have a play-room devoted to the use of their children in bad weather. There should be, during the whole period of their education, a balance between the hours of exercise and the hours of study; the younger
the subject, the greater must be the proportion of physical action."

The exercise of ladies is particularly referred to in the following extracts, the first from Dr. E. Wilson. Dr. W. says:

"In the recommendation of exercise to ladies, I am continually met by replies such as this: 'My household duties give me sufficient exercise; I am sure that I am tired enough by bedtime;' or, 'I do take exercise; there are my occupations at home, and then my calls.' Now it will be seen at once, that household occupations are not exercise; for, in the first place, they are duties, generally desultory, often irksome, and often anxious; calculated to engender fatigue both of body and of mind, but wholly wanting in the attributes appertaining to true exercise, namely, change of thought, change of scene, and muscular action accomplished in the open air. Again: it is well known, that after being thoroughly fatigued by employments of this nature, a walk is often refreshing and agreeable. Fashionable calls are open to the obvious objection of merely changing the air of one house for that of another, and often without any mental satisfaction arising out of the accom-
plishment of the duty. Shopping is more animating; but here also, more perhaps than in the call, the objection of an impure and confined atmosphere steps in, while the open, fresh, unbreathed air, should be the main object of search."

Joel Hawes, D.D., in his "Looking-Glass for Ladies," observes:

"And it is said of this woman, that she girdeth her loins with strength, and strengtheneth her arms. A due attention to health is here indicated, and if this be not in itself a virtue, it is very essential to the cultivation of all the virtues. A feeble, sickly, delicate body is but a poor tenement to be occupied by an immortal mind; and when it is doomed to inhabit such a body, its noblest energies are depressed, and the highest graces of a virtuous character, unable to develope themselves, are crushed in the bud.

"How the virtuous woman strengthened her loins and her arms, or how she acquired and maintained firm and vigorous health, we can be at no loss to know, after reading what is said of her occupations and habits. Though evidently of a high rank in society, she did not think it beneath her station, nor inconsistent
with her views of delicacy and refinement, to occupy herself in domestic affairs. From the whole description given of her, we are warranted to say, that she was what is sometimes called a stirring body; one who had always something to do, and was always doing it; not wasting her time and strength in ease, in indolence, and inefficiency, but busy, active, industrious; rising early, and seeing that all the concerns of the household were attended to at the right time and in the right manner; and not unwilling, when there was need, to put a helping hand, to whatever work demanded to be done. This secured her health, kept her from ennui, and the dismal train of ills included in nervous affections, made her strong, vigorous, and cheerful, and qualified her to fill, with usefulness and honor, the station assigned her in Providence.

"The virtue—for such I must call it—here referred to, is sadly neglected in the training of our daughters at the present day. At least, one would think so, from seeing the puny forms, and feeble frames, and sickly faces of great numbers of our young females, especially of the higher classes. Account for it as we may, the fact must be admitted, that the muscular vigor
and strength of our fair countrywomen have, for a long time past, been undergoing a melancholy change. Our grandmothers, should they appear among us, would scarcely recognize many of their descendants as belonging to the same race with themselves, so diminished are they in size, vigor and portly gait. But a small proportion of our adult females enjoy complete health; and it has been said, that a full half of the wives of our missionaries have been found, on trial, not to have had sufficient health for the stations they were called to occupy. The evil here complained of is, no doubt, to be traced chiefly to bad training in the nursery and in the family; to an ignorance or disregard of the laws of our physical system in respect to health. But the mischief, commencing here, is often aggravated in schools and higher seminaries of learning, and receives its finish in the intercourse and habits of fashionable life. The mind, or brain, as the physiologist would say, is too severely tasked, is overworked in its tender age; a due attention is not paid to air and exercise; and in the eagerness to have the pupils compass the whole curriculum of knowledge in a given time, it is often forgotten by parents and teach-
ers, how easily the health may be impaired by such a process, and so impaired, that the mind, the heart, the whole character, shall shrink and dwindle into feebleness and inefficiency, and the life become vapid, useless and miserable. The evil here suggested is an appalling one. It deserves the most serious attention of all who wish well to the rising generation. It acts not on the body alone, but on the mind, on the intellectual and moral character; not on the fair sex alone, but on the other sex also, and is raising up a race of feeble, sickly beings, as unfit for the serious duties of life, as they are to enjoy the blessings of full and vigorous health.

"I here touch upon a topic which might well occupy the rest of my Address. It is distressing to notice what tyranny fashion exercises over many of the fair sex. Crowds of them are seen bowing at the shrine of this inexorable goddess, and yielding obedience to her mandates, to the utter ruin of their health and happiness. In many of our cities and larger towns, aye, and smaller towns too, her reign is indeed the reign of terror. She has but to speak, and no matter how absurd and ridiculous, or even torturing, her utterances, she is at once listened to
and obeyed. Not satisfied with dictating rules of dress, diet, air and exercise, she assumes the right to apply instruments of torture to the bodies of her victims, by which they are compressed and broken into a form utterly destructive of nature’s beautiful model, and thus misshapen and deformed, heart, lungs, and other vital organs literally crushed within them, they are compelled to drag out an existence devoid of comfort and of usefulness. I cannot enlarge. I hope the evil here indicated is not so prevalent as it was a few years since. It has in some degree been corrected by the diffusion of better views on the subject of physical education. It still, however, prevails to a melancholy extent; and it ought to be discountenanced and resisted by all who wish well to the rising and the risen generation. If mothers would see their daughters adorned with the character of the virtuous woman, they must learn to train them with a rigid reference to the laws of health, so as to secure the most perfect development both of body and of mind. And our daughters must learn the essential conditions on which health depends, and carefully conform to them. They must learn, that if they would have a sound mind
in a sound body, cheerful spirits with beautiful forms and blooming countenances, they must cease to worship at the shrine of the goddess of fashion, and follow the precepts of reason and common sense,—must breathe pure air, take free exercise, be satisfied with a simple, nutritious diet, and never be afraid to bear a part in the work of the kitchen, and the common affairs of the family. They must learn, in a word, in the whole course of their training, both at home and in the school, to mingle labor with study, active with sedentary employments, and never fall into the absurd notion, that in order to be delicate they must be indolent, or, that in order to be fine ladies, they must form themselves into those inefficient, fainting, nervous things that often pass under that name."

CHAPTER VII.

INTELLECTUAL EFFORT.

Excessive intellectual exertion is quite as pernicious in its results upon health as is that of the body. Studious men, locked
up in libraries, and toiling over the midnight lamp, are the prey of many maladies peculiar to themselves. A high state of intellectual cultivation is rarely gained but at the expense of bodily health. "In the sweat of thy face shalt thou eat bread," was the declaration of the Creator to our primitive parents; and in conjunction with this, the remark of Frederic the Great, "that man seems more adapted by nature for a postilion than a philosopher," is, undoubtedly, true. "While the mind is on the rack of thought, the body is inactive; and while a determination of blood is constantly kept up to the head, and, consequently, an excess of excitability obtains there, the stomach, liver and alimentary canal become torpid; and hence arises a long train of nervous, dyspeptic, and hypochondriacal complaints, to which the literary amateur is proverbially subject." To quote the words of a most intelligent physician, in a letter to Dr. Johnson on this subject, "Unfortunately, the physical is too often in the inverse ratio of the intellectual appetite, and with the bulimia doctorum there is too frequently associated a stomach as weak as blotting paper, to use Vogel's just, but rather ludicrous com-
In the comparison. The effects of literary studies on the digestive organs, and through them on the whole body, have been long observed, and sometimes exquisitely described, both by poets and physicians."

It is seldom that a studious man can sleep well, and it is impossible to enjoy good health without refreshing sleep. The weary brain can no more repose quietly than the strained and over-exerted muscles. Both require time to relax themselves before they can be benefited by "tired nature's sweet restorer, balmy sleep."

Besides, the studious are, more than any other class, exposed to that nameless ill, hypochondriasis. Rarely shall we find a hard student, who is not more or less subject to this evil. Many a young man of my acquaintance, during his academic course, and while toiling for the laurel wreath of college honors, has found himself the victim of various uneasy sensations, beyond the power of his comprehension, resembling most of the organic diseases which run to a fatal termination. These morbid feelings affect every part of the body, and frequently the poor sufferer imagines that he is
laboring under an irrecoverable disease. And when such an idea has taken possession of the brain, it is no easy task to dislodge it from the imagination. Reasoning is vain—argument only rivets him the stronger in his impression. I remember a good lady who was extremely notional relative to her disease. She had often protested that she should die. I had reasoned with her time after time, but to no other effect than to leave her more firmly fixed in her opinion that she would soon die. Being called to visit her suddenly one day, she expressed, as usual, her firm conviction that her diseases would soon bring her to the grave. With a serious countenance, I remarked, Well, ma'am, you cannot expect to live always. You have been feeble a long time, and, we fear, you may not recover. She was entirely unprepared for such a reply, and with a brightening countenance, said, "Why, I am not worse than I have often been before." Soon she gave evidence of being much better than she had been for some time, and before I left, she said, "I feel as though I shall get better, and think I shall recover."

The mind requires in these cases to be dissipated from the pursuits of literature and from
the feelings of the body. It requires some amusing and pleasant occupation, such as a ride, pleasing conversation, light reading, "or any amusement that requires some management, and presents a succession of objects."

"Whenever we find the diseases of literature assail us, we should have the lamp scoured out and no more oil put in it. It is night study that ruins the constitution, by keeping up a bewildered chaos of impressions on the brain, during the succeeding sleep — if that can be called sleep which is constantly interrupted by incoherent dreams and half-waking trains of thought."

When the mental energies begin to flag, we should stop studying. We can accomplish more in one hour, when the intellectual powers are in full vigor, than we can in a whole day, when they are jagged and worried out. "In the 'iter ad astra,' it is sometimes dangerous to goad our Pegasus too much. The path is narrow and intricate — the ethereal courser is often restive when spurred, and flounces out of the proper road."

Had studious men known, and practised upon these principles, they would have been much more serviceable to the world, saved themselves
much mental and corporeal suffering, and many of them escaped an early grave. Especially would this have been the case with a large number who have entered the gospel ministry in this country within the last twenty years. I have this day had conversation with a gentleman who stands high in that profession, and who has labored for a dozen years most intensely in his study. He says "he is breaking down; he cannot endure such intense intellectual effort; it is undermining his constitution, and will soon lay him aside forever." Many are the cases characterised by the expression put into the mouth of the old Dutchman, by the gifted author of the "Temperance Tales," as expressive of the power of a vigorous mind over a feeble body. "The sword is too sharp for de scabbard."

Cicero, in his oration for the poet Archias, has the following passage, which shows us something of the manner of life of that great man: "You will doubtless ask, Gracchus, the reason of my being so highly delighted with this man? It is because he furnishes me with what relieves my mind, and charms my ears, after the fatigue and noise of the forum. Do you im-
agine that I could possibly plead every day on such a variety of subjects, if my mind was not cultivated with science; or that it could bear being stretched to such a degree, if it were not sometimes unbent by amusement?"

We should have more Tullys in the forum, and more men of might in the pulpit, if those who are called to these stations pursued a course similar as it respects their studies.

CHAPTER VIII.

THE PASSIONS.

By the passions, I mean to include everything, from the slightest emotion up to those paroxysms of rage which agitate the whole frame. The play of these perceptions, emotions, or passions (it is of little consequence by what name they are called), in producing corporeal derangements of both function and structure, has often been deplored, but not sufficiently appreciated. "These have been quaintly but not inaptly termed "fulnima perturbationem." Burton denominates them, "the thunder and lightning of perturbation, which causeth such violent and spee-
dy altercations in this our microcosm, and many times subverts the good estate and temperature of it.”—“These various emotions are to the mind, what the various species of food and drink are to the body. They stimulate, they depress, they tranquillize, and they ruffle the soul; but what is more to our purpose, they produce the same effects upon the body. Examples of this are every moment before our eyes. The vascular and nervous systems are perpetually under the influence of the mental emotions. What palpitations and tremors are every morning excited by the post-man’s rap, when we are in anxious expectation of intelligence from absent friends! How often are we hardly able to break the seal of important letters! The effects of the mind on the circulation of the blood were early observed; instance the detection of Antiochus’s passion for Stratonia, by the pulse. But it is not on the heart and large vessels only that mental emotions operate; the minutest capillaries feel their influence. Let the idea of shame cross the imagination of sensibility, and instantaneously the capillaries of the cheek are gorged with blood! Let the emotion be changed to fear; quickly the lily usurps the rose, and the
vessels of the face are blanched and bloodless!"

I have quoted the above, because it is full of good sense and accords with the experience of every observing man. The effects of the imagination upon the body are beyond conception. The imagination is a power of the human mind by which we form ideas of absent objects, as though they were actually present, through the help of memory. No one doubts but that the mind receives impressions of external objects through the medium of the brain and nerves. If you destroy the nerve which communicates between the brain and the ear, no sound will be heard. So of the eye, the tooth, and every other organ. We are not able to explain how the mind acts upon the body, but we know it does act upon it powerfully. History informs us of a "Roman lady who fell suddenly dead of joy upon meeting her son, whom she supposed had fallen in one of the battles of Hannibal. A Jew in France came by night over a dangerous passage on a plank, that lay over a brook, without harm; the next day, on viewing the perilous situation he had been in, he fell down dead."

The animal magnetism of Mesmer was prov-
ed to produce its astonishing effects wholly through the imagination. The same results were witnessed in persons who were not magnetised, as in those who were, provided they supposed they were magnetised. This was proved again and again in the presence of the committee appointed by the French king, of whom Dr. Franklin was one, to investigate the matter. The Tractorism of Perkins was the same. Wooden Tractors were found to produce precisely the same effects, as the metallic, provided the patient supposed them to be metallic. The same was the case with the royal touch for the scrofula or "king's evil." It was given up, says Hume, the historian, after more than 5000 a year had received the royal mercy for a quarter of a century, "because it could no longer give amazement to the populace, and was attended with ridicule in the eyes of all men of understanding." The children in the poor-house at Haarlem is another instance of the same kind. One was taken with the St. Vitus dance, and soon, a number were dancing. The physicians were puzzled, until the celebrated Dr. Boerhaave was called, who threatened to apply red hot irons to the arms of the children, by the
fear of which all were frightened from dancing except the one who was first taken. A medicine will produce a powerful effect when the patient believes it will do so. "During the siege of Breda, in 1625, when the garrison was on the point of surrendering to the enemy, from the ravages of scurvy, a few vials of sham medicine were conveyed into the fortress by the Prince of Orange's orders, and distributed among the scorbutics in doses of a few drops, as the most valuable and infallible specific. The consequences were, that the mental energy inspired by confidence in the medicine, worked miracles. Such as had not moved their limbs for a month before, were seen walking in the streets sound, straight, and whole. Many, who declared that they had been rendered worse by all former remedies, recovered in a few days, to their inexpressible joy."

Anger, grief and fear have all been known to destroy life. The imagination, acting through the medium of faith and hope, has had unbounded influence over human diseases. When the physician has been believed to possess superior skill, the efficacy of his prescription is exceedingly advanced by the patient's confidence in
that knowledge of the prescriber. This truth has been verified, from the days of Hippocrates to the present time.

During the French Revolution and the reign of terror, it has been remarked that diseases of the heart were extremely common, produced, unquestionably, by that constant state of agitation and alarm which seized upon every mind. Corvisart and Burns, as well as many ancient writers, have thrown much light on these subjects, to wit, the influence of the passions upon the body.

"Love," says one, "that cordial drop which heaven has thrown into the bitter cup of life, destroys, and ever has destroyed, more victims than the conqueror's sword! I need not allude to the wide gulph into which the victims of this illicit indulgence are daily plunged, by myriads: this is evident to the most superficial observation. But it is little suspected by the profession, and not dreamt of by the world at large, that the salutary boundaries of virtuous love are so very generally unconsciously overstepped as to occasion a range of moral and physical evil, in the human race, that would startle the most stoical mind, were that range faithfully and accurately delineated."
Under this head, I would caution all persons predisposed to consumption, to avoid *sensual* indulgence. Excess in the indulgence of this natural appetite, implanted in our constitution by the beneficent Creator for a high and noble purpose, facilitates the progress of that dire destroyer, consumption.

The medical practitioner, as well as the divine, has many opportunities of witnessing the deleterious effects of fanaticism and enthusiasm in religion. Religion was designed to calm the troubled sea of human passion, and prepare man for a peaceful exit from this, to a holier and happier world; but through the imbecility of human reason, it has often unhinged the intellectual powers, and converted those cheerful and moderate exercises upon spiritual things, which should ever be characteristic of pure devotion, into engines of destruction to the human fabric. Often do we see these poor victims of misguided zeal, live in terrors and die in despair. These are not the effects of genuine religion. They can no more be charged to that, or disprove its reality or utility, than counterfeit coin can prove there is no genuine, or that the base and alloyed is of equal value with the good.
To the abuse of Christianity, these direful evils owe their origin. Still, they are not imaginary, but real evils. The effects of grief, and sorrow and anxiety of mind, have been noticed by clergymen as well as by medical philosophers, in various ages. Chrysostom describes sorrow “as a cruel torture to the soul, consuming the body and gnawing the very heart.” Melancthon has a passage which translated reads thus—“Sorrow strikes the heart; makes it flutter and pine away with great pain; and the black blood, drawn from the spleen and diffused under the ribs on the left side, makes those perilous hypochondriacal flatulencies which happen to those that are troubled with sorrow.”

Philip, the Fifth, of Spain, died suddenly of grief, on learning suddenly the disastrous defeat of his army near Plaisance. Zimmerman says that when his body was opened, his heart was found burst. Thus he died literally of a broken heart.

I might proceed to a much greater length with the effects of the passions upon the animal frame, but the limits of this work will not admit. The design of noticing them has been to guard the young, more especially, against an undue
indulgence in them. Let all who are predisposed to nervous or consumptive complaints, set a strict watch over them.

"Passions are the elements of life," not to be annihilated, but governed; and if they get the reins, like Phœbus driving the chariot of the sun, they will soon set the world on fire, and dig an early grave, as they often have, for many of the brightest gems in society.

CHAPTER IX.

SLEEP.

Reference has already been had to sleep, but not as a separate agent in contributing to the health and vigor of both mind and body, and thus forestalling and preventing consumption.

Sleep is an astonishing phenomenon, a corporeal quiescence, and apparently, an intellectual annihilation. It has always been beyond the power of philosophers to analyze or explain this wonderful state, in which one third of our life is passed.

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There seems to be but a single function in the human body, which does not require repose, and that is the heart; and some suppose this, also, has its time of rest. The muscles of the body and the intellectual machinery all have their periods of action and rest. In sleep, even, if the mind is active, as some suppose, we are still unconscious of our own existence. I do not believe that there can be evidence adduced that the mind acts while we sleep, for, I do not consider dreaming as sleeping, that is, it is not perfect sleep.

But the point to be attended to in this work, is, when we should sleep, and how long. These are things which we can understand, and, if properly discussed and practised, will be far more serviceable to us than any metaphysical disquisitions and conjectural opinions relative to the phenomena of sleep. When should we sleep? Our Creator seems to have answered this question by making day and night. When light, and heat, and noise, and bustle, cease—when “tired nature” seems to rest; then the organs of the body, the muscles and senses, should sink into forgetful quiescence, and remain so, till the “powerful king of day” and
SLEEP.

harbinger of action folds up the mantle of darkness, and throws over creation the brilliancy of his power. This would seem to be the dictate of nature. This dictate the animal creation obeys, with the exception of a few beasts of prey, which the sons and daughters of etiquette and fashion, by devoting the day to repose and the night to dissipation, have deemed worthy of their imitation. The night, which brings repose to sober men and sober beasts, only rouses their powers to action by gathering around them those artificial stimulants which steep them in the fumes of debauch till morn, and toss them on the ocean of dreams till noon. This is the best way to live a short life: It is like editing a daily journal, destroying time; like the atmospheric rail-car, annihilating space; or, in the graphic language of another, "burning the candle of life at both ends."

He, then, who would live long — who would possess "a sound mind in a sound body," must shun such a course. He must proscribe such a pernicious Fashion, though it be "the god of this world," especially the presiding deity of all large cities. He must learn the lesson which Dr. Franklin told the Parisians the American Colo-
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... had learned, — “that it is cheaper burning day light than candle light” — cheaper, not for the length of his purse only, but also for the length of his life. Let such a lesson be learned — let the night be devoted to repose, instead of dissipation, revels, balls, theatres and crowded assemblies of all kinds — and those of slender form, and naturally predisposed to consumption, would forestall and prevent the grasp of that dreadful ravager of our land, and more especially of our cities.

But it is vain to write, or speak, or preach, or philosophize on this subject. Hundreds of iron pens, and thousands of tongues with brazen lungs, could never write or talk away the evil. As long as present pleasure is esteemed a certain good, and future suffering and disease, uncertain, the great mass of the population will pursue the former and risk the consequences of the latter. It is doubtful whether this evil is checked in the least among those in health by all the lectures given against it from the pulpit, the press, and by the physician. “Morbos odimus et accersisimus” — “we hate diseases and hasten after them.”
The old adage is as true and important, as it is quaint or inelegant,

"Early to bed and early to rise
Makes a man healthy, wealthy and wise."

As to the length of time spent in sleep, children require a longer period than adults; youth longer than the middle aged, and the middle aged more than the aged. In man, that "bundle of habits," much depends upon custom. If a man of middle age allow himself to sleep ten hours, he will seem to need that amount of sleep. But it is very certain that many men enjoy excellent health, who for years have not spent more than five, and at the most, six hours in sleep out of the twenty-four. About eight hours is the medium for persons in health. He who has retired early and rested that length of time, should force himself from his bed, however difficult the task may be at first. Habit will soon render it easy for him to go to sleep and awake at a certain hour, and arise as soon as he awakes. Sleep in the early part of the night, is much more refreshing than in the latter part. Some eminent physicians and philosophers have
gone so far as to say, that one hour's sleep before midnight is worth two after that period.

The soundness of sleep depends very much upon temperament, and temperament upon steady habits and proper diet. He, who would forestall and prevent consumption, must strive to secure "sound sleep by night."

Let the mind be tranquil, the body neither very warm nor cold, the bed in a large airy room, but not in a position to have a current of air pass over it, all bandages loosened, no late study nor food taken immediately before retiring, and you may hope to enjoy the blessing of sleep,—a blessing that cannot be too highly prized, and the praises of which have been said and sung by philosophers and poets in all ages.

"While I am asleep," says Sancho Panza, "I have neither fear nor hope, neither trouble, nor glory; and blessings on him who invented sleep, the mantle that covers all human thoughts; the food and appeaser of hunger; the drink, that quenches thirst; the fire, that warms cold; the cold, that moderates heat; and, lastly, the general coin, which purchases all things: the balance and weight, that makes the shepherd equal to the king, and the simple to the wise."
Sir Philip Sidney calls sleep "the poor man’s wealth,” and it may well be added—every man’s health.

"Come sleep, O sleep, the certain knot of peace, 
The baiting place of wit, the balm of woe;  
The poor man’s wealth, the prisoner’s release.  
Th’ indifferent judge between the high and low."

Shakspeare, Dryden, Young and Drummond have all extolled Sleep; the latter in the following beautiful lines.

"Sleep, silence, child, sweet father of soft rest, 
Prince, whose approach peace to all mortals brings, 
Indifferent host to shepherds and to kings, 
Sole comforter of minds which are oppressed;  
Lo! by thy charming rod, all breathing things  
Lie slumbering, with forgetfulness possessed."

CHAPTER X.

MECHANICAL MEASURES.

One, and, perhaps, the most common of all causes in the early development of consumption, is stooping forwards, both when sitting and walking. This may appear, to the superficial observer, a small affair. But I can assure him,
it is not so. Man was made upright. Persons who sit and walk erect, throwing back the shoulders and projecting the chest forward, rarely have consumption. Indeed, some have doubted whether a person has ever been found in consumption, who uniformly maintained an erect posture. By stooping, the circulation is obstructed, the chest cramped, and the space which should be occupied by the lungs lessened. Many a child at school, by sitting in a cramped condition lays the foundation of future consumption.

The red men, the Aborigines of this country, so remarkable for maintaining an erect posture, and being straight when sitting, walking and sleeping, are said seldom to have consumption. Any person can maintain this position by a little effort. If he cannot do it without, he should use mechanical means to accomplish it. He should wear shoulder braces. They should be so constructed that he cannot bend forward, and to compel him to make the breast bone project in front.

When consumption threatens, or, in its incipient stages, the lungs shrink, and their structure becomes condensed. The chest invariably
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becomes narrowed. The disease usually begins at the top of the lungs, under the clavicle, or collar bone, where they are the most easily obstructed, because they have the least play. Now, if the lungs can be rendered voluminous, and the chest expanded, the disease may be avoided. This may be done by breathing through an instrument so constructed, as to impede the expiration, or breathing out of the air. This will keep the lungs full of air much longer than they would be in natural breathing, and thus keep the chest expanded. A person in health may thus enlarge his chest two or three inches. This will have a very salutary effect in forestalling and preventing consumption. I have seen patients signally benefited in this way, even after consumptive symptoms existed. But when this is the case, great caution should be observed in the employment of the instrument; as it may be used both in a manner, and at a time, that it should not be. Persons in health may use a tube with safety, but not so, those whose lungs are tender, or diseased. The latter should not try this experiment but under the care of an experienced physician, as injury, instead of benefit, would more probably be the
result. No person, even in health, should practise long at a time, and a very few minutes is often all that a feeble patient can bear.

If all the benefit described by some, in advanced cases of consumption, is not derived from thus inflating the lungs, it is very evident that much good may be accomplished among the healthy in enlarging the chest and giving the lungs full play.

Physicians have long since found that in feeble persons much benefit has been derived from a proper use of well-constructed abdominal supporters. It is perfectly philosophical to conclude that, as the whole interior of the trunk is filled with organs, naturally kept in perfect contact, they may support and sustain each other, and, as all these organs are under the natural law of gravity, that whatever allows the lower organs to descend below their natural places, must produce a descent, or, at least, a tendency to descend, in those above, and hence a proper support, applied to the lower organs when weakened or displaced, will support the whole internal viscera. Many persons have found very happy results from wearing supporters around the lower part of the abdomen.
Much more might be said respecting these mechanical means of averting consumption and for relieving debility, but these hints must suffice, as instruction may be had on these subjects from every regular practitioner of medicine, and more especially, from those who have made diseases of the chest a prominent part of their professional studies.

CHAPTER XI.

MEDICINE.

Here I will quote Dr. Johnson's words entire, and then follow them with some remarks of my own.

"Some good and much harm are every day done by the family medicine chest, and the patent medicine warehouse. If the experienced physician is often at a loss what to prescribe, and frequently finds it most prudent to prescribe nothing at all, what infinite mischief must be hourly produced by the patient, and the still more ignorant quack, pouring drugs, of which they know little, into a body, of which they know less! The dictionaries of popular medicine
and gazettes of health slay annually their thousands; not directly indeed, by the actual injury of the remedies which they congregate without knowledge or discrimination, but eventually, by procrastinating the interference of the regular practitioner till the period of cure is past, or until the disease has taken hold on the constitution or part, which will baffle all future remedial measures."

Medicine has been much abused, and I have little doubt but more have fallen victims to this abuse than most persons imagine. The practice of dosing and drugging, indiscriminately, cannot be too sharply rebuked. I have known ossification of the heart and arteries of the chest, and torpor and inflammation of the stomach, produced by this abominable practice. I should not speak thus severely of it, had I not suffered from my youth to the present hour from this evil, but well-meant treatment. From a child, I was dosed by those who had charge of me, to eradicate a humor, as they supposed, till I was nearly drugged out of the world. I took all the domestic remedies (as they are called, until the stomach and bowels, and, indeed, all the digestive organs, were deprived of their natural
energy, and rendered so torpid and inactive, that I have not recovered from the effects to this day. I was so drilled to the use of medicine, that for a number of years after I came to manhood, I supposed that I could not live without it. It would have been worth, in health, to me more than mountains of gold, could some kind friend, acquainted with the evils of constantly taking medicine, have informed me, when young, of the direful effects resulting from its use. I might have shunned that path which ruined my health. I would warn every one against this evil. Let no fond parent, or grandmother, or maiden aunt, prescribe for you the morning bitters and evening herb-tea, and sulphur, and buck-thorn, salts and senna, and an hundred other physics and catholicons and panaceas. Instead of doing good, eradicating humors and other diseases, and strengthening the constitution, they will prove a perfect Pandora's box, laying the foundation for half the "ills that flesh is heir to." Such a course will undermine the best constitution; and, if it does not prepare its victim for an early grave, it will entail upon him a life of bodily misery and distress.

Let it not be inferred from this, however, that
medicine, or the art of healing, is useless. The truth is far from this. It is of immense value, but it should always be taken under the guidance of one who knows the nature of the medicine prescribed, and who has sense and judgment enough to discontinue it when it has done its work. No medicine is of service when its use is as habitual as one's daily food. A man may take a medicine for twenty years, which injures him all the time, and yet he may think it does him good—yea, more, believe he cannot live without it.

Still, the art of medicine is not to be despised, and many diseases, in their incipient stages, may be remedied by it, which without it, and without its being administered timely and properly, would prove fatal.

The person who is predisposed to consumption, would do well to consult his physician early and often; and if he be a skilful one, he will not set him to dosing habitually. He may prescribe a remedy, or he may put the patient upon a regimen, which will be of infinite service to him. But he will never set him to try this and that, and the other medicine, "leading to perplex, and bewildering to blind," both his pa-
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tient and himself. Happy is it for the physi-
cian, and thrice and four times more happy for
the patient; that the medical profession, as a
body, are at the present time not only devoting
much more attention to the prevention of disease
than formerly, but are also prescribing far less
medicine in the treatment of it.

Chapter XII.

CONCLUSION.

I have been brief in the foregoing pages, be-
cause it is well known that little books are much
more frequently read than larger ones, and not
only read, but much more easily remembered.
The origin and cause of this most dreadful dis-
 ease, which annually makes such ravages among
our population, has been pointed out, and the
means to be pursued in order to avoid it. The
language is plain and simple, and can be com-
prehended by all into whose hands this little
work may fall; and if it shall be instrumental
in saving one from an early grave, it will repay
all the labor of the author in writing it. His
reasons for undertaking the work have been stated in the Introduction, and as he may devote his future time very much to the study of this disease, if he should make any discovery, or improvement in preventing or treating it, he will communicate the same to the public, as he has no intention to tamper with secret remedies, or pursue any course of treatment which he has the least desire to conceal from the medical profession. Indeed, he is free, not only to acknowledge his indebtedness to Laennec, and Johnson, and others, in preparing this work, but also to say, that the greater proportion of what is here said, has been said by medical men before; but he is not aware that it has been brought together in a single small and convenient book.

I shall close the work by the following quotation from Dr. Armstrong.

"With regard to climate, I thought favorably of a change some time ago; but so many appalling facts have come to my knowledge, that I have been induced to change my mind. If consumption be threatened, the patient has the best chance at home. If the patient be in threatened consumption, to remove him from
his friends is to wrench him from all the affections which have held him from the time of his birth; and no man can bear this, without receiving a shock which may be exceedingly injurious. Besides which, the fatigue of travelling, the risk of cold, the worry and bustle of inns, the diet, which becomes in some measure dependent upon chance, on the road, the danger of damp beds, and the necessity of changing the abode at different seasons of the year, must all be taken into the account: they more than counterbalance the good which might arise from a less variable climate; and many persons, who have left this country in a state of threatened consumption, have returned with confirmed phthisis. If an individual of a delicate constitution, with a slight cough and a slow pulse, should pass to a warmer climate, he can scarcely ever return with safety to this. Medical men have been too much accustomed quietly to take up with errors of men who lived in times of darkness and ignorance; and the age in which we live is remarkable for the fortitude with which some individuals have thrown off this cumbersome load, and have dared to think and act for themselves. This independence of
mind has led to very beneficial results in the improvement of professional knowledge. It is for you also to endeavor to cultivate the opportunities afforded you, not only for your own sakes and for the sake of your patients, but for the improvement of your profession; and I have no doubt, that at some future period, the whole class of tuberculous diseases will be arrested. It is a field of study which perseverance and observation will find at all times worthy of cultivation."
FIFTH LEVEL