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LETTERS

TO

A YOUNG PHYSICIAN

JUST ENTERING UPON PRACTICE.

BY

JAMES JACKSON, M. D., LL. D.

PROFESSOR EMERITUS OF THE THEORY AND PRACTICE OF PHYSIC IN THE UNIVERSITY AT CAMBRIDGE; LATE PHYSICIAN IN THE MASSACHUSETTS GENERAL HOSPITAL; HONORARY MEMBER OF THE MEDICO-CHIRURGICAL SOCIETY OF LONDON; CORRESPONDING MEMBER OF THE ACADEMY OF MEDICINE AT PARIS, &c. &c. &c

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TO

JOHN C. WARREN, M. D.,

PROFESSOR EMERITUS OF ANATOMY IN THE UNIVERSITY AT CAMBRIDGE; LATE SURGEON IN THE MASSACHUSETTS GENERAL HOSPITAL; PRESIDENT OF THE BOSTON SOCIETY OF NATURAL HISTORY; HONORARY MEMBER OF THE MEDICO-CHIRURGICAL SOCIETY OF LONDON; CORRESPONDING MEMBER OF THE ACADEMY OF MEDICINE AT PARIS, ETC., ETC., ETC.

My dear Friend, —

I have been writing some letters to a young physician, and am about to publish them. I beg leave to introduce them to the public by a letter of dedication to you. To whom can I so properly dedicate them as to my oldest medical friend, one with whom I have lived in close intimacy for more than half a century? Is it not a great satisfaction to look back to the many objects we have pursued, and labors we have performed, together, during this period?

It is not my intention to eulogize you, or to attempt to extend a reputation which has long since spread further than my voice can reach. We have tried an experiment, and I am inclined to state to the young men of our profession what it was, and what have been its results. There will be a little boasting in it; but the young must indulge their seniors in boasting; when they are getting past service, it may be all that is left for them. Allow

me, then, in this public letter to give an account of our experiment.

You and I began our active lives in this city nearly at the same time. It was when Boston had about one sixth of its present population, and I suppose much less than a sixth of its present wealth. We were so circumstanced as to be peculiarly rivals. Our business led us across each other's paths every day for a long series of years. What one gained, the other seemed to lose. It would have been very easy for us to have got up a pretty quarrel at any moment; and having once begun, we might each have got partisans, and all the usual entanglements to such cases appertaining might have followed. Happily, we pursued a different course. We met together with the feelings we had had as fellow-students. We took much delight in consultation and discussion on professional subjects, and were ever ready to help each other. We have, indeed, maintained a strong personal interest in each other's welfare, and promoted each other's happiness. We do not resemble each other in temperament, and cannot see all things alike. From this cause, and not always looking at objects from the same point of view, we often differed in opinion. But we have always agreed to differ. We have not often disputed, and never have quarrelled on account of this difference of opinion, nor on any other account. In our intercourse with the sick, each has given the other credit for what was good in him, instead of studying and publishing the other's faults. In every work for the promotion of medical science, or for elevating the profession, we have coöperated heartily, neither of us trying to push the other aside. And thus it is, that being now, as regards age, in the front rank in our profession,

we have continued to this day on terms of intimacy and friendship. This is something to rejoice in, and something for which we may properly thank God; and I know you will join me in giving thanks reverently.

As we are near the end of our journey, I hope I may be excused for stating this experiment and its results. I would show to young men how grateful these results are. I can say to them that our interests have been promoted by our friendly treatment of each other; that each of us has gained by it much more than either of us could have done by the sharpest quarrels. If they believe me, any two of them, placed side by side, as we were, may be induced to try the plan of a peaceful competition.

Enough, as regards ourselves. As regards the brethren, who have multiplied about us since we began our course, we have much cause for rejoicing. We were *pioneers* in a country not new, but not much cleared. We were not fully aware of it then, but when we commenced our career, our country had just begun to be assured of prosperity after the hard and exhausting revolution it had undergone. I will not indulge myself in relating to the young all the changes which have taken place since I began business in 1800. I will not point out how much, necessary to elevate the profession, was yet to be done. I cannot be supposed to intimate any deficiency in our predecessors. The community was not rich enough to encourage or aid in works for the public welfare. But the time was coming. We happened to be so situated as to be called to work. *Juniores ad labores* was, not in words, but in effect, the motto, under which we were brought into service; and our arms, such as they were, with implements quite inferior to such as the present

day can furnish, were occupied in felling the trees. We worked to get up some log houses, useful for a time, but which we pulled down when no longer wanted. We have since then aided in getting up edifices more costly, and destined, I trust, to be permanently useful.

It has been my delight for many years past, as I believe it has been yours, to point out to others what a respectable body of junior practitioners has been rising up around us. Compare the power of distinguishing diseases, and the discretion in treating them, shown in young men of the present day, with the like characteristics of our medical men forty years ago, and you will find the advance to be very honorable. Medical science has been increasing in Europe and in this country. Our younger men have had great masters. Not to mention our own countrymen, they have had Laennec and Louis, and many others among the French; in Great Britain and Ireland too many to be named; and a host of surgeons, of whom you could best give the list. It may be said that it would have been shameful if they had not acquired much. But no such reproach falls on them; on the contrary, it is due to them to say, that they have fully availed themselves of their opportunities. For my own part, in looking at one, and now another, who have succeeded me in office, I think it enough to boast of that I aided in teaching them how to learn. I should be sorry to believe that they had not gone ahead of their predecessor. I only beg that they will allow him to be a sort of honorary member in the corps of *young physic*.

Let me put an end to this rambling, lest some one smile at the garrulity of old age. I designed this letter not only as a dedication, with reminiscences attached to

it, but also as an introduction, or preface, to the letters which are to follow it. You might guess that I was stirred up to write a book by the success with which my fellow ex-professors had been doing the like. If I could succeed as well as the rest of you, it would be inducement enough. But, in truth, the project has been in my mind a long while. The physical objections to much confinement in my study have kept me back. But early in this year I decided to undertake the task, and from that time have given to it all the labor I was capable of. In this undertaking I flattered myself I could be of some service to young physicians just coming into practice. I did not propose a systematic work; but I thought it possible, availing myself of the form and license of letters, to give whatever useful thing my experience could furnish. Had I kept notes of cases in private practice, I might have been able to give information in a more precise form. But this I have not done, finding that it drew off my attention too much from the case itself. I have, however, always endeavored to keep the results of experience in my mind, so as to have them ready for use at the bedside. Now I have run my eyes over the list of diseases strictly medical, and whenever I have recalled anything worthy to be brought forward, I have stated it, more or less fully, as the case seemed to require. I have not given cases in support of my statements. When I have furnished cases, it has, generally, been by way of illustration, not as proofs. I have described diseases, so far as necessary for my purpose, but without attempting to give full delineations of them. I should except from this remark some morbid affections, which I think have

been imperfectly understood, or not at all described by others. An instance of this you will find in Letter XIII.

It may be said that I have gone into theoretical questions, and certainly into the discussion of first principles, such as do not belong to a plain, practical work. There is an instance of this in the letter on nervous diseases. My reply is, that, for practical purposes, I think a disease should be first viewed in its simplest form and in the clearest light; free from extraneous circumstances. This is what I have attempted to bring about in the discussion above referred to, and on some other occasions.

Let me hope that the work may be worthy of your approbation, and that it may be useful to the class of persons for whom it is designed.

With the best wishes for your health and happiness,

I remain, as always,

sincerely your friend,

JAMES JACKSON.

Hamilton Place, August, 1855.

LETTER I.

INTRODUCTORY.

I CONGRATULATE you, my young friend, on having arrived at the period on which your eyes have long been fixed; the period at which your education is terminated, and at which you are to enter upon the serious business of your profession. Your education, I say, is terminated. You are told, indeed, that you must continue to educate yourself through life. Without quarrelling about words, I think this does not present the subject in its true point of view. I agree that you are bound to study and to increase your knowledge as long as you continue to be engaged in your profession. But you are now educated; you are *brought out*. You are now placed on the course where you are to run your race. You look at the objects before you from a new point. You have put on your working-dress, and you are to go to business.

From this day you must realize, more and more, the difference between the study of the sciences and the application of them to the business of life,—to the practice of your art. You may, before this, have tried your hand at practice; but it has been as an apprentice, and not with the feelings of responsibility belonging to the master-workman.

In some respects I should call on you for instruction, rather than offer instruction to you. For instance, knowing how you have applied yourself, I should regard you as an authority in microscopic anatomy, or on nice points of organic chemistry. But I have been working, in my fashion, for more than half a century. I have been travelling through the country upon which you are entering. Its high-roads and its by-paths are somewhat familiar to me. You have studied them in the books and on the maps, and I doubt not you have studied them well. Yet I may be able to communicate to you some useful knowledge respecting them, although it relates to small matters only. However, that I may not seem to disparage myself, I will acknowledge a hope that there may be some few points of real importance on which I can enlighten you.

It is my object in these letters to point out to you in a familiar manner whatever occurs to me as likely

to aid you, and which the books do not say much about. I shall not be perfectly methodical, yet I shall endeavor to hold to some plan. This may be regarded as an introductory letter, in which I may treat of matters and things in general.

Ours is said to be a liberal profession. This is often said, with some vague notions of its dignity, by those who are not aware why it has been called so. It has been customary, you know, for those, who designed to acquire a knowledge of any mechanic art, to be bound as apprentices to some master-workman. Now, an apprentice is a servant, though he may not be a menial servant. He works for his master's benefit, and at his master's bidding. It was the case formerly, and I believe it is so at the present day, in our father-land, and in Europe generally, that common surgeons and apothecaries learned their arts in the same way. But it was never so as to physicians. They did not pursue their studies under bonds, but like clergymen and lawyers, as freemen. Hence the professions of these three descriptions of men have been called liberal. At present, you know, physicians and surgeons take the same rank, or nearly so, in England, and altogether so in this country. Indeed, with very rare exceptions, the two professions are not distinct among us.

I have been led into these remarks because I think that some members of our profession have called it liberal, with false notions on the subject. They have thought not only that they differed from artisans, but they have seemed almost to believe that they were not practising an art. They have seemed to regard themselves as professors of a science, by which they could explain all the causes of diseases, and the true modes of treating them. I rejoice to say that, in some instances, this is true; and it is among the most delightful parts of our business when we can instruct an enlightened man in the principles which should guide him in the attainment of health. It is not often, however, that we can have this pleasure, for two reasons: First, because many principles, on which we act, are not established on certain ground; and therefore they must be followed with great caution and constant watchfulness. Second, because there are few principles which are universal in their application. In its application every principle is subject to the limitation of other principles. We are not, then, acting on so grand a scale, always guided by well-settled principles of science; we are often glad of the most limited empirical knowledge, and often obliged to choose our course under much doubt. These difficulties are great; but they are not greater than those

attending the application of principles to practice in many common affairs of life, where the circumstances are complicated. There is a marked resemblance, in certain fundamental points, between our art and the arts of agriculture and navigation. In the practice of each of these arts we avail ourselves of the laws of nature to produce certain results. The seaman places his machine — his ship — upon the waters, and avails himself of the winds to propel it. These winds are uncertain; they are not, in any way, subject to his control, so that he cannot be sure as to the duration, the comfort, nor even the safety of his voyage. He cannot furnish a pupil with positive rules, by which to conduct his bark across the Atlantic. The captain must have first a knowledge of the principles of navigation; but this is not enough. In applying them he must have regard to the qualities of his ship, to the strength of his crew, and to the constantly varying circumstances of the weather. The complexity here is much less than that attending the treatment of a disease; for in this we have to do with a living being. It is not strange, then, that the physician cannot always foretell the length or the amount of suffering of a disease, or the ultimate issue of it. All this is consistent with the wisest management on the part of the navigator, or that of the physician. It is much

the same with the agriculturist. He may prepare his ground with the most appropriate manures, and give to it the nicest tilth; he may sow his seed at the proper season; and yet his expectations as to the harvest may be entirely disappointed. Not only may the weather be unpropitious, but, at the moment when the skies and the winds are favorable, and when success seems certain, some insect army may suddenly invade his fields and destroy his crop. Thus there is an uncertainty in dealing with the powers of nature which are most constant; for there is a good degree of constancy in the results of agriculture — so much that we are rarely disappointed in relying on it for the sustenance of man and beast. Yet, from year to year, there is a variation in its results; and, sometimes, the crops fail, in particular regions, almost entirely. Is it, then, surprising that there is much uncertainty in the success of the medical art; an art which has to do with a diseased body, and whose end is to bring back this body to the healthy functions which belong to it? More especially, can this uncertainty be surprising, when this diseased body has been previously damaged, or enfeebled by a long course of errors or misfortunes? While, then, we acknowledge the imperfection of our art, we must deny that this is a proper subject of reproach. It is so, indeed, as

applied to those who profess to have a system, by which they can explain everything and effect everything you may desire. But it certainly is not so when applied to those who pursue an expectant, or an active treatment, as circumstances may make proper; and who exercise modesty and discretion, as well as decision, in the practice of their art.

I am very desirous to place this matter in what appears to me its proper light. Those, who are disposed to think ill of our profession, may ask how we justify the use of powerful and dangerous drugs, while we acknowledge the uncertainty of their effects. The evils, they say, are certain; the benefits, uncertain. This is true; and the question implies a grave objection to the careless use of such drugs. The objection, however, is to the abuse of them. They should not be used without grave consideration. But the physician, who knows all the risks attending the use of powerful remedies, may also know within what limits they are safe; and likewise may know that the danger attending his patient's case is much greater, than that of the remedy. Now, I contend that this is true in regard to men well educated, instructed in good principles, and endowed with sound discretion.

It is my own practice to avoid drugs as much as possible; and I more frequently find it difficult to

persuade people to abstain from using them, than to induce them to take them. But I hope that you will not believe me to be distrustful of the power of drugs to do real service to the sick, under proper circumstances. I am far otherwise. And, in reference to this point, I wish to tell you that your success in the use of medicines may depend somewhat on the temper with which you give them. You must be hopeful and feel an interest in them. Do not, like a cold step-father, leave them to make their own way in the world; but watch them in their course. You cannot make a fire burn well if you put the wood on the andirons with a feeling of indifference. You must study to know the power of the drug you prescribe, the proper dose, and the tests of a sufficient dose, the mode of preparation of the medicine, and then of the patient for the medicine, and all the management requisite for a good result. Do not be in a hurry to give credit to your prescription, as soon as the patient shows any sign of amendment, nor be discouraged if relief do not follow as soon as you had anticipated. In this last case see if there has not been some error in the management of the affair, or if some counteracting cause has not interfered. Do not despair because the medicine has failed on your first trial of it. Try it again, before you condemn what has been recommended as

beneficial by one well qualified to form a judgment on it. I have wandered from my point.

It is a very narrow and unjust view of the practice of medicine, to suppose it to consist altogether in the use of powerful drugs, or of drugs of any kind. Far from it. It is true that the common question addressed to the physician by the patient is, *What shall I take?* That question implies that there is a drug adapted to every disease. But the enlightened physician first considers whether the patient shall take anything. He considers what other modes of relief there are besides pills and draughts. He looks to diet and regimen. To these points I shall have frequent occasion to refer.

Let it be remembered,— and we may address this particularly to the scoffer,— that the true physician takes care of his patient without claiming to control the disease in all cases. He does not regard himself as making an exhibition before a company to show his skill; he makes no boast of what he can do. I wish I could say that this is never done by any of our profession. There are those who, directly or indirectly, trumpet forth their skill and their success, attributing the recovery of their patients to the remedies they have prescribed, and never to the spontaneous efforts of nature. These, whatever titles may be appended

to their names, are true quacks. They *quack! quack!* that they may attract the attention of the passers-by; and, while they extol their remedies for the sick and the suffering, they are seeking only their own profit and their own glory. The true physician, on the other hand, cannot fail to be modest in his pretensions; for he is aware how his knowledge and power are limited, while he feels the magnitude of his task. Is it his business to cure all his patients? It is so, if he can do it, even in the sense now attached to the word *cure*. But, in the original sense of it, he should cure all; for in that sense to cure meant to take care. The priest had the parish for his cure, the physician the sick for his. In this sense the sick were under his cure till they got well or died, if they were willing to remain so. The physician may do very much for the welfare of the sick, more than others can do, although he does not, even in the major part of cases, undertake to control and overcome the disease by art. It was with these views that I never reported any patients *cured* at our hospital. Those who recovered their health before they left the house were reported as *well*, not implying that they were made so by the active treatment they had received there. But it was to be understood that all patients received in that house were to be cured, that is, taken care of.

I have sometimes had patients say I was not doing anything for them, because I had not ordered any medicine to be taken. It may be that the patient in such a case thinks that no medicine will remove the disease, and is right in his opinion; yet, something is to be done, but not by medicine. By diet and regimen much may be done to mitigate suffering and prolong life. In all cases, in the worst, there is one course more prudent than another. If the ship is running on to the shore, or is even breaking up on the rocks, there may be one course better than another in the management of affairs. In the worst peril, when you must leave the bark to which you had trusted yourself, in whose guidance would you place most confidence? Would you leave yourself to the mercy of the waves? Would you trust an ordinary sailor because he bawled the loudest? Or would you follow the advice of the experienced ship-master?

Ours, I said, is a liberal profession. While studying the sciences, which qualify you to practise the art of medicine, while deciding what rules of art you will adopt, you have not been bound to follow any man as a guide; you have not promised fealty to any intellectual master. If you have been as wise as I think you have, you have weighed the characters of your teachers, dead and living, and judged for yourself, in regard

to each of them, how far you might rely on him for accuracy and honesty in stating facts and observations, and for philosophical accuracy in the inferences to be drawn from them. You are bound as by an oath, though you have never held up your hand before man, to use your best judgment in the treatment of those who are committed to your care. You are bound to consult the best teachers, but not to follow the orders of any individual among them.

Ours is a liberal profession, and you may rejoice in being received into it. There are to be found in our ancestry fathers of whom we may be proud. First, Hippocrates, whose title to father was not only because he was the first in time who left any writings worthy to be preserved, but also because he pursued his inquiries in the truest spirit, and in the best mode. Like all scientific writers, he employed the language of the day, and that involved the received doctrines and hypotheses of the day. But he was a true observer of diseases; he noted the circumstances under which they arose, and he stated the treatment he employed. This was a communication of knowledge. If error was mixed with it, the wonder is that so much of it was true and substantial knowledge. I will not give you a list of the worthy successors of Hippocrates. It would be a long list, though I should select

those only whose claims would not be disputed. I might find some such in our own land, who have finished their career in the present century. I will indulge myself in naming one only; one whom I had the happiness to know intimately. He was my first teacher, and I have been accustomed, with some others of his pupils, to call him *old master*. I refer to the late Edward Augustus Holyoke, M. D., of Salem. He, like Hippocrates, lived more than a hundred years, retaining his faculties, mental and bodily, to the end of his century, in unusual perfection. But it is not for his longevity that I mention him as entitled to a high rank in the profession. He was little more than fifty years of age when our Massachusetts Medical Society received its charter, and in that Dr. Holyoke's name stands first on the list of those incorporated. Upon the organization of the society he was elected its first president. Thus it appears that his high claims were acknowledged by his brethren at a time when there must have been very many in the state older than he was. It was on account of his professional merit that he was thus honored; but all the more that his whole character was most worthy of respect. He had the delicacy of taste, as shown in his manners and general bearing, which grows out of a fine organization and of a cultivated mind. This

was accompanied by true piety; that piety, which not only elevates the heart and promotes all holy affections, but also clears the atmosphere in which the intellect dwells; for, it is certainly true that, when all the lower appetites and passions are kept under control, and divine things are made real to the mind, then truth will be discerned most clearly. This is peculiarly obvious as regards moral subjects, but it is not limited to them.

Dr. Holyoke ranked among our first men in his general scientific attainments. But the great object of his life, industriously and faithfully pursued, was the practice of medicine in its various branches. He observed, closely and critically, the phenomena of disease and the methods of treating it. His conceptions were clear, and his memory strong; though, like other old men, he lamented its decay, in the latter part of his life. He had not lost it, however, as was shown on the day which completed his hundred years, and when he began on a new century. On that day a case was presented to him of an unusual character, on which, after examining it, he remarked that he did not recall any like it, unless that of a patient whom he named. This patient was one whom he had seen, once only, forty years before. He had, then, a great store-house of cases in his mind; and of the materials

in this store-house he constantly availed himself. He told me that his habit was, in a difficult case, first to look to experience for a guide; and only when this was deficient, to allow himself to act on hypothetical principles. After considering a case, he would decide upon the treatment which he thought best adapted, and would pursue this with firmness; watching, however, for whatever would correct his opinions. He was too modest to believe that he had become a perfect master of his art, and too wise to adventure rashly where human life was at risk. He had great dignity of character, such that it seemed to prevent the exhibition of any bad passions in his presence; but it was combined with the greatest modesty. This will be understood, when I add that this dignity was founded on purity of heart. His reputation was unspotted. I never heard any one hint even at any moral error in his life.

Dr. Holyoke was in his seventieth year when I went into his study. He had had a very extensive practice, but he had then contracted it so that he attended to his business on foot. After a short time he allowed me to walk with him and see his patients; a privilege for which I have ever felt most thankful. My intercourse with him was highly instructive; it was also most agreeable. He was extremely affable,

and had the simplicity of manner which belongs to the true gentleman. Withal he had a playful humor and a most hearty laugh; but he never wounded any man's reputation. From my very imperfect delineation of his character you may judge how much I must have venerated and loved him; and I hope that this delineation may not seem to you to have occupied too much space.

We belong, then, to a profession in which there have been in every age men whom we may be proud to call our fathers. But a man whose father was ennobled on account of his high character and great services to the cause of humanity, does not necessarily derive advantage from the title which descends to him. He does so only when he imitates the virtues of his parent, and labors for the common good. A desire for profit and reputation might be enough to prompt him to do all this; it would also be good policy. But he will not do it with a full certainty of success if he be not influenced by still higher motives; by a true love of science and humanity.

You must not mistake me. We are not called upon to forget ourselves in our regard for others. We do not engage in practice merely from philanthropy. We are justified in looking for both profit and honor, if we give our best services to our patients;

only we must not be thinking of these when at the bed-side. There the welfare of the sick must occupy us entirely. The sea-captain, in a storm, must not be thinking of the rich merchandise with which his ship is freighted. His mind must then be engrossed by a regard to the lives committed to his charge. Our profession has attached to it great labors and great responsibility. It is for the public good that it should hold out due rewards, so as to attract to it young men of talents and sound learning. Such men, with minds liberalized by scientific studies, and especially by the study of sciences most interesting to humanity, may be expected to act from motives of the highest order. My excellent friend, M. Louis, of Paris, in a letter to me, says that he looks upon a physician "as holding a sacred office, which demands greater sacrifices than are to be made in any other profession." No one is better entitled by his own character than this distinguished pathologist to utter this noble sentiment.

Before concluding this letter I have a remark to make in reference to the acknowledged imperfection of our art. Are there any in our ranks who cease to study it diligently on this account? This, surely, is altogether unjustifiable; for, if it is imperfect, they should study to improve it. Besides, there is abun-

dant reason and encouragement for every one to continue his studies as long as he lives. Imperfect as the healing art is, be assured of this, *no one man knows all that is known respecting it.*

LETTER II.

ON CONDUCT IN THE SICK-ROOM.

In this letter I mean to treat of the deportment of the physician in the sick-room, and of the investigation of the cases presented to him.

The physician should enter the sick-room with the feeling that he has a serious duty to perform. He must remember that his countenance, and words, and actions are closely watched by the patient and by his friends in all cases of severe sickness; and, indeed, where, though the disease is slight, the apprehension of evil is great.

First of all, his deportment should be calm; he should be sober without solemnity, and civil without formality. He should abstain from all levity. He should, indeed, be cheerful, and, under proper circumstances, he may indulge in vivacity and in humor, if he has any. But all this should be done with reference to the actual state of feeling of the patient and of his friends. He should avoid mannerism; and

rather cultivate the feelings which will lead him aright, than be thinking in detail of the particular steps which he should take. The physician should never exact attention to himself. The patient is the central object in the sick-room, or should be so. The physician should recognize this, and, if possible, put his patient at his ease, so as to facilitate his intercourse with him. As far as possible, he should seek information from the patient himself. If the sick one be an infant, or in any way incapable of speaking for himself, the inquiries must be addressed to the mother, or to the nurse. Yet the conversation should relate to the patient only. In the same spirit, paying no more attention to others than decency requires, he should proceed at once to business. In this way, he acquires the confidence of his patient, and will be most likely to get at the truth in respect to his case. Now that is a very hard matter, this getting at the truth. I have often stated to pupils in the hospital, after a hard struggle to get at the truth in some case, this anecdote, which, whether true or not, has served my purpose. It has been said that when Sir Walter Raleigh was a prisoner in the Tower of London, he saw in the yard a rencontre between two men, who were strangers to him. He thought he saw the whole transaction, and that he knew which was the aggressor.

He was much incensed at the conduct of this man; and when his keeper visited him he expressed his feelings in regard to the affair. His keeper then related the whole story, and showed Sir Walter that he was quite in the wrong; that the man whom he called the aggressor was, in truth, the innocent and injured party. Sir Walter then turned round, and, taking up some papers, threw them into the fire, saying, that he had been attempting to write a history, but, if he had been so much deceived in what had passed before his own eyes, he could not expect to tell the truth as to events of distant regions and past times.

I would not inculcate by this anecdote that we cannot arrive at the truth, but that we are very liable to be deceived, and to adopt wrong conclusions even as to occurrences almost under our own eyes. It is a great part of our business to get at, and examine the evidence respecting the cases which are under our care. I hold that a physician must be quite as acute as a lawyer in examining witnesses. The lawyer, when questioning a witness, acts as an advocate, seeking only for what will support his side of the case. Unhappily, the physician sometimes exhibits the same spirit, by seeking for what shall support his own doctrines. But his duty is to examine the testimony presented to him in the spirit of a judge, seeking for

truth only; being careful not to reject that which is well substantiated, because he cannot understand it, or because it contradicts his preconceived notions. It is for facts that we are to seek, — for the actual phenomena, — and we must be careful not to accept opinions in lieu of them. Hence, our scrutiny must sometimes be very close. We must insist on exact answers, though not in a violent manner; for we must always take care not to agitate the sick man.

In the investigation of a case, it is best to have a method. It is not necessary that we should pursue this formally, but we should have it in mind, and, in difficult cases of long standing, it may be necessary to pursue it in a somewhat precise manner. The method should be such that we may be sure not to neglect any point. Chiefly, it should be such as to lead us to an examination of all the functions and all the organs; and of the relation to each other of the different affections of the various parts. My own plan has been this: first, to examine the organic functions, then the animal functions, and then those relating to reproduction: following, thus far, the plan of Bichat. Under the head of organic functions I consider those of assimilation, formation and excretion. The functions of assimilation are those, by which the foreign substance is taken into the organs of digestion,

and all which follow until the nutriment is converted into blood. The functions of formation are those by which the solid organs are moulded and maintained, and by which those secretions take place, which are employed for the various purposes of the body. The functions of excretion are those, by which the parts of the food, not employed for nutrition, are carried off, and those by which the blood is depurated of the materials gathered up from the various parts of the body, where they are no longer useful. The animal functions are, first, those of sensation; second, those of the voluntary muscles, and of the organs of speech; and, third, between these, all the mental functions; including under this head the emotions and passions, as well as the operations of the intellect. I need not treat in detail of the functions of reproduction. Ordinarily, they may seem not to require special attention; but it is not so as regards females; for it is very often, if not always, necessary to advert, with them, to the subject of menstruation; likewise, in married women, we must know when one is in a state of pregnancy, or of lactation. In some cases, of course, the principal or primary disease is found in the organs of reproduction.

Having obtained a methodical history of the functions, we must avail ourselves of the physical signs,

as well as of the sensations of the patient, and any other testimony, in order to ascertain the state of the various organs of the body. In regard to all symptoms, we must learn whether they are constant, or occasional; and if occasional, whether they recur at regular periods; also whether two or more occur in any order relative to each other. In these inquiries, it is sometimes necessary to guard against suggesting symptoms, when the patient is full of imaginations. Hence, not only should the physician avoid a rigid formality, but he should exercise due discretion in the mode of inquiry. By having a method in the mind we can more readily decide, when our examination is finished, although we do not adhere to the method in every examination.

The symptoms may be divided, in the language of the day, into the objective and subjective. The objective are those which we discover by our own observation and examination of the patient. Such are the phenomena of the countenance, the respiration, pulse, &c., &c. The subjective symptoms are those which we must learn from the patient himself, consisting in his own sensation, or derived from his own consciousness. It is obvious that the objective symptoms are most worthy of reliance, because we can measure them for ourselves, and have one standard

for all patients. Far otherwise with the subjective symptoms; since patients, equally anxious to tell us the truth, will describe their sensations in very different terms, when we have reason to believe that they are the same, or nearly the same. This difference relates, in the first place, to the degree of violence, or severity, if it be pain which the patient speaks of. But there is a greater difficulty in regard to the kind, or quality of the sensations. We employ names for objects which are well known, such as animals, plants, or machines; but there are many sensations which are sufficiently definite in themselves, and well known to those who have experienced them, but which are so rare as not to have acquired distinct names. These are described by each patient by such comparisons as occur to his mind. But to two different men, having the same feelings, different comparisons will occur. The two patients will at first seem to speak of different things; and, though the experienced physician will generally discover what is meant, he cannot always do it; and probably, in some instances, he is entirely misled. There are cases, in which we find no objective symptoms, or none of much importance, and must therefore rely on the patient alone. In such, this absence of objective symptoms should be noted, as part of their history. It is one of the great accomplish-

ments of modern physicians that they learn so much more, by their own observations on the patient, than their predecessors did. This is instanced particularly in the exploration of the thorax by auscultation and percussion. But I think it is quite as difficult an art to collect and duly estimate the subjective symptoms. For this purpose one must have a good knowledge of human nature, be in the habit of intercourse with men, and be able to estimate aright the scale on which language is employed by different persons. Besides this difference, which arises from the more or less acute feelings of different persons, there are others which come from the different degrees of precision with which men express their ideas, or from the more or less extensive vocabulary which they employ. Thus, the lawyer, the farmer, and the seaman, would describe their sufferings in very different terms, although one might not be more acute than the other in his feelings.

In first examining a new case, it is not well to ask what is the disease, for that leads the patient to give his opinion, on which it is not well that he should be committed; or else, he replies, it is that which he wants you to tell. It is better to ask in what way he is incommoded, for that is what he does know. Oftentimes it is best to let the patient tell his story in his

own way, without bringing into view your method of examination. When he has finished, you may cross-question him; afterwards you may consider how many of the questions, which you would have asked, he has answered, and then address to him such new ones as will fill up the methodical examination of his case. In grave cases, however, especially when of long standing and obscure, it is best to insist upon a methodical examination. It is the shortest way. This examination will, of course, include the past history, and the present state. In many instances, one interview, or even two, will not suffice for this investigation.

In subsequent attendance on the case it is important to watch the changes in the past symptoms, as well as to note all new ones. Not unfrequently we must make inquiries of the friends of the patient to obtain a full account of the case. I state this in order to give a caution. Without any bad intentions, the friend will sometimes mislead us, owing to his undue anxiety and apprehension, or because he has adopted an hypothesis, and, like an advocate, enlarges upon the evidence in support of that. It does happen, though rarely, that some sinister motive causes the supposed friend to misrepresent the case. I would not inspire jealousy on this subject, but only caution. In getting the his-

tory of the case it is always right, and sometimes quite essential, to get dates; if possible, with accuracy. Ascertain not only the date of the beginning of the disease, but also that of each prominent symptom, and of every change which has occurred, good or bad. In every important case the previous history of the patient should be ascertained, in respect to his own health, and even that of his family; likewise, his habits as to diet, business, pleasures, etc., his temperament and disposition, should be ascertained. If the attack be acute, and, especially, if of a nervous character, we should ascertain whether the patient has been subject to the same.

It is thought quite essential, you know, that the physician should feel the pulse, and look at the tongue; and the objective signs, which we thus discover, are often quite important. I believe Celsus advises that we should not be in a hurry to feel the pulse. But I have found it better to make this examination early in the visit, before the patient has become fatigued or excited; and, if there seems to be any emotion at that time, the examination may be repeated when the patient has become calm. To see the tongue fairly, you should sit between the patient and the light. I make this minute remark because this position will enable you to make other obser-

rations with advantage, such as relate to the countenance, eyes, complexion, attitude, motions of the chest, and of other parts; and these things may be watched without embarrassing the patient, without his being aware of your object, if you are so placed as to see him distinctly. Let me add to this long detail as to the examination of the patient, that, in difficult cases, it is necessary to review, consider, and digest the evidence, and to repeat your examination until you have arrived at all the satisfaction which the circumstances permit.

A young physician, fearful that he may be thought ignorant, is tempted to answer too readily the inquiries of the patient, or his friends, as to the diagnosis, prognosis, and the treatment. He will, however, ultimately, gain by not yielding to this temptation. Sensible men, and sensible women too, will give him credit if he takes time to think before he speaks. I would not counsel any affectation; do not say that the case is uncertain, with a wiseacre shake of the head. This will not ultimately advance your reputation. Be cautious, but, at the same time, frank; and, when you have made up an opinion, state it plainly. Be slow to give an alarm as to the result, especially to the patient; for to judicious friends it is best to state all your apprehensions. It is sometimes quite essential,

though not so often as you might suppose, to hide your fears entirely from the patient, and from anxious friends who surround him. This is justified only where it is evidently for the welfare of the sick, to whom, certainly, you ought not to make your knowledge work an injury. Every one will admit the propriety of this where the mental powers are impaired. But also with young persons, whose minds are immature, and with persons who are morbidly apprehensive, it is often dangerous to acknowledge your fears. When conscious that you are influenced only by benevolent motives, and that you *must* deceive the patient, do it thoroughly; do not try to save yourself by equivocal expressions. If a patient of sane mind and of adult age demands your honest opinion, give it to him distinctly; even then do not couch it in the coarsest terms, but use the mildest words which will answer your purpose.

A common inquiry on the part of the patient and his friends is as to the *cause* of disease. To this inquiry they are sometimes answered by the physician in blind terms, which they cannot understand. It is unworthy of a scientific man to make a reply to such queries in terms which are designedly unintelligible; and yet it is often impossible to do it in terms which will be properly understood. If a professor at a clini-

cal lecture were stating to his pupils his views in such a case, he might, perhaps, occupy an hour in so doing; and this to pupils so far advanced as to understand the scientific terms he would employ. How, then, can he make a brief, and at the same time an intelligible reply to a common patient? But there is another difficulty which I will not disguise. This is, that in many cases we do not know the causes. Thus, in diseases of the skin, it is often impossible to assign the true cause; that is, the true efficient cause. From these considerations I have thought it better to avoid the discussion of causes as much as possible, never hesitating to avow that physicians are much more ignorant on these points than they are supposed to be; or, at least, that this was true in my own case.

I have known one physician who could hardly be made to answer any question, during his visits, on points not relating to his patient. He was, perhaps, too dry, too stiff. But his course was admirable compared with that of the gossiping doctors, who talk over all the affairs of the village, almost forgetting the patient immediately before them. I need not point out the numerous evils of this course.

Of many cases, and even of all, it may be desirable to keep notes; but there are some evils attending this. If the notes are taken during the visit, they must be

brief, often hurried, and then not worthy of reliance. If taken afterwards, at home, many circumstances may be forgotten. Taken during the visit, they distract the attention, and the physician puts his knowledge on paper without fixing it in his mind. We would desire that the physician should give himself to the examination of his case, until it should become daguerreotyped upon his mind. This is not so likely to be done, if he is occupied with his pencil and his note-book. However, men differ in their capacities; and some are able to get the benefit of notes, without the evils which I have suggested. If you do take notes, use them; put them in a form to be useful. Set down carefully all the phenomena — what you do not understand, as as well as what you do. Then transfer the whole in a systematic manner to your large case-book, at home. Review your notes from time to time while the case is going on, and, when it is finished, subjoin to your notes such reflections as they may give rise to.

Your directions as to medicines, diet and general management, should be given with great care. Make them clear and exact, and state whether they are to be followed literally, at all events, or whether anything is to be trusted to the discretion of the attendants. In grave cases, or where the drugs are potent, it is best

to put the directions in writing. If possible, deal with the real nurse, whether she be the mother or a nursery-maid; for directions, which pass from one person to another, are very likely to be misstated. When you make your prescription, settle in your own mind what direct effects are to be expected from the medicine, and in what way it is to benefit the patient. Afterwards note whether the results are such as you had anticipated, or in what way they have been different from your expectations. It is in this way you can make your experience beneficial. It is a grateful thing to see your patient get well in any way; but it is important, for those who are to follow him, that you should know how far your treatment had helped him, or hurt him.

I said that you should enter the room of a sick man in a calm manner, and with a sober air, showing your desire to learn the state of your patient. I will now add, that, if possible, you should leave the room with an air of cheerfulness; such as should give all the hope, which the case will justify, for the comfort of the patient and his friends.

It is your interest, as well as your duty, to render all the service you can to those who call for your professional aid. And, first, you should attend to the calls which are made on you with the least possible

delay; not, however, breaking an old engagement for a new one. Next, be punctual in your attendance. If possible, make your visit when it is expected, and let it be known when you should be expected. Entire precision in this respect is not possible; but it should be approximated. It is proper to decide in your own mind, during one visit, when you will make the next; for you will then think of all the circumstances which should decide you, which you might forget the next morning. If it is a matter of indifference, let it be known that the time is uncertain, so that the patient may be saved from anxiety, or other inconvenience. To a man in full practice these arrangements are attended with difficulty. But one who realizes that they are important to the comfort, and sometimes to the essential welfare of the patient, will be able to conform to them more easily than might be anticipated.

It is proper for a physician, as it is for other men, to take care of his reputation. His success in life depends on it. He should, however, be more ready to meet any charge against him on the score of fidelity and honorable conduct, than on account of skill. He will sometimes suffer from the ignorance of those about him. A stupid and tattling nurse, or a silly fine lady, may do him real injury; and this is the more

vexatious and mortifying because he cannot meet them on fair grounds. If his skill is called in question, he cannot condescend to defend himself against such assailants. If they circulate falsehoods, it may be necessary to expose them. But, if the charges are not grave, it is better to disregard them. Above all, he should not court such persons as I refer to, with a view to prevent injury from them. Foolish friends may do him great harm. They may desert him; but, what is worse, they may give him injudicious praise. If he can help it, he should never let any one cry him up; not even the wise and good. It must be his wish that such persons should think well of him, but not that they should give him extravagant praise. On the whole, one need not fear that he shall not get sufficient credit. I have often remarked that, though a physician is sometimes blamed very unjustly, it is quite as common for him to get more credit than he is fairly entitled to; so that he has not, on the whole, any right to complain.

LETTER III.

ON THE NERVOUS SYSTEM AND ON HEADACHE.

Let us now begin at the head, and go downwards. I shall not notice all the diseases in the various parts, but only those on which I have something to say.

In the head the most important part is the brain, and I must connect my observations on diseases of this organ with those, which relate to the whole nervous system. As introductory to particular diseases of this system, I wish to offer some general remarks and explanations in respect to its physiology and pathology.

To give you my thoughts on the diseases of the nervous system, I must point out wherein it is affected by or through the organic system, and where it acts independently. To make my views clear, I must begin with the simplest living beings, but I will not carry you minutely through the whole series of vegetables and animals.

The polypus is one simple organ; a bag, of which

the outside is as good as the inside, and vice versa; and of which one portion is as good as any other; so that you may cut it in pieces, and each piece may live and model itself into a perfect polypus. The cellular vegetables, such as the algæ, are as simple in organization as the polypus, or even more so. They may be regarded as consisting of simple cells, aggregated together, but each capable of an independent life. As you ascend, you find in animals and vegetables distinct parts, or organs, destined for special purposes. Thus, in vegetables, you find a coating like a skin, or a bark, and you find leaves for respiration. You also find distinct parts for the perpetuation of the species,— the flowers,— many of them among the most beautiful objects in creation. Yet, all that belongs to these vegetables is for the maintenance of individual life, and for the perpetuation of the species.

Here, then, we see, in the simplest of living beings, a capacity for forming such organs as are needed for their humble and limited purposes. It is easy to conceive that beings, coming under the same general character, may be able to form other organs, for distinct purposes, not essential to their own life, nor for the maintenance of their race. Thus, the coral forms a matrix for itself and its progeny, and this answers likewise for its tomb. In this its remains, with those of

its contemporaries and its progeny, continue bedded for ages, and by their accumulation build up rocks in the ocean, and give a foundation for islands. But the most simple instance, and one most to my purpose, is the *thorn* formed on plants. This seems to me the simplest of *outgrowths*. It is formed by the organic system for its use; but it does not perform any function necessary for the life of the plant, nor for that of its progeny. The naturalist might point out to you an abundance of like instances, and go gradually from the thorn, through the more complicated structures, to the nervous system in man. Among animals, low in the scale of beings, you find nerves. Rising in this scale you find a ring, or some larger centre, where the various nerves meet, or from which they are falsely said to issue; and you arrive through the ganglia to the brain, a compound ganglion, with the medulla spinalis attached to it. All these are outgrowths from the organic system; they are maintained in life by that system, and are subject to the diseases which belong to it, such as inflammation, tuberculosis, &c. It is perfectly true that the brain and nerves repay the obligation to the organic system. Man is not planted in the earth whence he may derive his nourishment. Though he gets one essential of his life from the atmosphere that surrounds him, his skin is not encom-

passed by a material, from which his nutriment can be absorbed. He must seek and gather his food; and, to secure enough of it, he finds it best to cultivate the earth which is to produce it. Thus the animal system repays the organic system, by which it was built up, and by which it is maintained.

Now, how are all these functions, organic and animal, performed? As to the organic, we can obtain some notions, though in them there is a mystery we cannot solve. We get so far behind the curtain as to discover the cells, and can trace their subdivision and multiplication; we can see how some are combined to build up the solid organs; and we find the secretions are gathered from other cells, which open and pour them out. Here is something to gratify our wish to comprehend the operations in a living body, though we cannot discover, from the examination of any cell, by itself, for what purpose it is fitted — whether to make a bone or a muscle, saliva or bile. An acquaintance with the normal operations in the organic system enables us to comprehend something as to its abnormal, or pathological operations. We find in inflammation a modification of the formative or nutritive processes; and in some more grave, happily more rare, morbid affections, the organic system appears to form something like new organs, or structures.

These do not conform to anything in the healthy state, and they cause a waste and decay of the whole body. Now, these, and other changes which are wrought by the organic system in its own organs, may, some of them at least, be wrought in the organs belonging to the animal system. Every day we are seeing inflammation and tubercles in, or about the nervous organs. So far we can get at some understanding of the diseases of the nervous system. This system has its functions impaired, or arrested in its various organs by pressure on them, especially when suddenly made. This is one of the effects of inflammation. There may also be destructive diseases in the brain, or other nervous organs; such as softening — a consequence, as some think, of inflammation. In these instances, if we can examine the parts affected, before or after death, we see the changes of structure which have been wrought.

While some of the diseases of the brain and its nervous appendages are explained, as has been stated, there are others not to be explained in the same way. On inspection of the organs concerned, there cannot be discovered any addition to, nor change of, structure. Here we have diseases, of which we know nothing more than clinical examination discloses. We know only the abnormal phenomena. By studying the symptoms, their course, and the order of their occur-

rence, we satisfy ourselves in what part of the nervous system the morbid affection originated; but that is all we can do. And now I wish you to see where the difficulty lies.

We know what are the normal functions of the nervous system, and we know much of the relation of its various parts, or organs. We know that, connected with the nervous centres, there are many nerves leading to every part of the body. We know that these nerves are not all adapted to the same office; but that they perform various offices, quite distinct in their nature. We have nerves of sense, nerves subservient to volition, those through which an irritation in one part causes motion in another, &c. How do the operations take place in these nerves, and how do they differ from each other? How is the image formed on the retina communicated through the optic nerve to the brain? Or, how is the fine aroma of a rose conveyed through the olfactory nerve? No answer can be given to these questions in the present state of our knowledge. They say, men have, each and all, a right to their opinions, and some one may *choose* to believe that vibrations are carried through the nerves of sense to the brain. Let him have his opinion, and then beg him to explain why visual objects cannot be discovered through the ear, or sounds through the nose.

It must be allowed, I think, that there is a specific difference in the action of the nerves connecting the different organs of sense and the brain; and a further examination of the subject would show that there must also be a difference between nerves of sense and those sent to the muscles, each having specific powers and modes of action, or operation. But we cannot point out what their actions, or operations are in any one of the cases of nervous influence. We do not know how any of the natural, normal, or healthy operations in the nervous system take place.

If I have succeeded, you are prepared for my corollary, which is this: the nervous system may undergo important changes in its functions, the effects of which are perfectly and abundantly manifested, while we cannot ascertain in what those changes consist. If we cannot show the difference in the operations of the olfactory and optic nerves, we cannot expect to discover the difference in the healthy and the morbid operations which occur in the brain and its appendages. You will understand that I refer here to cases where no change of structure is to be discovered in the part affected, and where there is not any morbid change in any other part of the body acting on the diseased brain and nerves.

I am aware of a resource for the explanation of

nervous affections among those, who cannot endure to be ignorant of anything, or who will not avow their ignorance. They will resort to the *more* or *less*. They will tell you there is too much tone, or strength, in the part, or too little; or those who would be more definite, will compare the nervous power, calling it a fluid, to the electric power or fluid. These persons will tell you that there is an accumulation of nervous fluid in a particular part in one case, and a deficiency of the same fluid in another. I will not spend words in sifting this and similar explanations, but will say, dogmatically, they come to nothing.

I arrive at the conclusion that many morbid affections of the nervous system do not admit any explanation in the present state of our knowledge; and that our treatment of the same is, and must be, founded entirely on experience; I may say, perhaps, a blind experience.

Let us now proceed to the diseases of the head. Among these we may first consider *Headache*. This occurs as one of the symptoms in many diseases, where the whole system is involved, such as fevers. But headache, independent of these, is of several kinds. Among these is one commonly known as the *Sick-Headache*. This affection is various in its degree, and in the frequency of its occurrence. To some

persons it is a very sore evil, not only from the sufferings which belong to it, but because it occupies so large a portion of their time. As it may occur at any moment, such persons are scarcely able to make any engagements without bargaining that they shall be excused if they have the headache. I think I have known some, who have suffered from this disease from one quarter to one third of the time, for several years in succession. I believe that this disease occurs even in early childhood; more commonly it is not noticed until after the age of puberty. Having once occurred, it often increases in severity and in frequency, to the age of forty or even later. It usually diminishes at, or before, fifty, and ceases before sixty. This disease seems to me to be one of the affections of the brain proper. The prominent symptoms are pain in the head and nausea, to which vomiting is often added; and the first impression is that it is produced by indigestion, or what is called a disordered stomach. It very certainly is provoked, in many instances, by errors of diet; but it is provoked also by other causes, such as the air of a close room, over-labor, or any derangement of the body or mind. The duration of its fits is various. In many persons, coming on in the day, it is relieved by a night's sleep; but in some it continues two, and even three or four days. It varies as

to its intensity; some persons continue their attention to business; while to others this is almost impossible. Some even must resort to the bed, and remain in darkness and silence till the fit is over. It is hardly necessary to describe the paroxysm minutely. In some persons it begins with a blind turn, *scotoma*. Most usually *anorexia*, as well as nausea, attends it. In others, however, the appetite is not entirely destroyed; and these can take a little food, not only without injury, but even with advantage.

Under so much suffering, the patient calls for relief. Occasionally some advantage is gained at the beginning by draughts of warm water, or of weak chamomile tea, so as to promote vomiting. Where the nausea is urgent these may be tried; but ipecacuanha and other emetic drugs should be avoided. Even when they give temporary relief, they are ultimately injurious to the stomach. This is not manifest in a single instance, but becomes very much so when the emetic is frequently repeated. In those persons in whom the paroxysm is usually long, if constipation of the bowels exists, some laxative may be employed with advantage. Aloes is among the best articles for this purpose, unless forbidden by the existence of hæmorrhoids, or by other reasons. Sometimes strong coffee will afford relief. Some persons employ opium; and,

as they think, with benefit. But, when the paroxysms are frequent, much evil may be produced by this article. In these later days ether by inhalation has been tried with occasional relief; but I have not had opportunities for testing this fully.

In a large proportion of cases active treatment may be omitted, as the disease soon subsides of itself; but in all cases the means of prevention must be studied. To this end, we must endeavor to discover the exciting causes of the paroxysm. These may be sought first in the food which is taken. The gross errors of diet are readily discovered; but in some persons the headache is occasioned by articles which may commonly be taken with impunity. A peculiar instance of this sort came under my notice many years since. A gentleman of a philosophical mind, and who was moderate in all things, suffered much from sick-headache. He kept notes of its occurrence, and for some time before the period to which I am to refer, he was attacked by it about once in a fortnight. Being called away from home, he made his dinner at a country tavern on bread and cheese. This was followed by a very severe headache. He now suspected the cheese to have caused the disease, though previously he had felt confident that this article always agreed with him, and he used it often. He abstained from cheese, and

had no recurrence of the headache for eighteen months, when it took place after eating a mince pie. I state this instance as showing that every article of diet should be suspected in turn; and, by experiment, we should ascertain what articles are in fault. But though errors in diet are a very common cause of the paroxysm, they are not the essential cause; at least, I believe so. In some persons, willing to make the trials, I have varied the diet in every way, as to quantity and quality, and yet the disease has continued.

In the largest number of cases this disease begins to grow more mild, and the paroxysms less frequent, before the age of fifty. If it continues to a later period, without any alleviation, there is ground to anticipate some more grave disease of the brain. In one instance of this sort there took place an affection of the brain, which terminated in death, in which I thought there was reason to suspect hypertrophy of the brain. The truth of this opinion was not tested after death, as the patient was at a distance from me. In another case hemiplegia occurred. In both instances the patients were females, between sixty and seventy years of age. One was married, and had had a large family; the other was single, and had led a regular life. Both were well formed and naturally vigorous. Of course, I do not pretend to draw a

positive inference from two cases. These are the two strongest cases I have known, but I have seen others, where slighter evidence favored the same conclusion.

I referred to care of the diet as one mode of prevention. But all the hygienic rules should be carefully regarded by those, who are afflicted with this troublesome disease. What those rules are I may take some other occasion to state.

There is another headache, affecting only one side, and occurring in paroxysms of a few hours daily, which is called *Intermittent Hemicrania*. This is the only regular intermittent disease, which is common in this vicinity. In some instances the paroxysms are more severe on the alternate days. It is usually connected with catarrh in the head, and is more frequent when the influenza prevails than at any other time. In a few instances the pain is on both sides of the head, but the great and severe pain is still limited to one side. It has seemed to me, when the pain was on both sides, that it is a general headache, accompanying the intermittent headache, as it might any other disease; and, in accordance with this, when the violence of the disease abates, the general headache goes off, leaving the hemicrania. I have made this statement, because this pain on both sides may leave a doubt as to the diagnosis. The pain is about the

temple, or around the eye, or both; sometimes extending towards the top of the head. In one instance only I have found the pain in the back part of the head, still limited to one side. The paroxysm usually begins before noon, and not unfrequently early in the morning; but rarely if ever before sunrise. Its duration varies from three hours, to ten and even twelve. The severity of the pain also varies, but in most instances it is very intense, a part of the time at least, so as to entirely interrupt an attention to business; and it very often drives the patient to his bed, in a dark room. The stoutest and boldest men give up to it.

The duration of the whole disease is as much as three weeks in all cases, and sometimes much more. I once saw a case which had lasted three months, and which was entirely relieved by treatment in five or six days. I speak less certainly about the ordinary duration, because the cases I have seen have uniformly been treated by medicine, and have terminated in less than three weeks; even in one week when attended to from the first.

There are some few persons, in whom I have known this disease to occur repeatedly. These have been persons of strumous or tuberculous constitutions.

This is one of the very few diseases in which I can

venture to say that it may certainly be removed by medicine. The treatment is the same as for intermittent fever. I have employed the cinchona in the earlier part of my life, and subsequently the sulphate of quinia; likewise, both formerly and latterly, I have employed the solution of the arsenite of potash. This last I found much more convenient, at least, than any preparation of cinchona, before the introduction of quinia; and I may say that, were it not for a reluctance to use metallic articles, and especially one which has so bad a name, I should employ it in most instances at the present day. Whichever article is employed, it should be given in as large a dose as the patient can conveniently bear. In giving the quinia, I administer it only during the intermission. For an adult, I first order twelve to sixteen grains during this period, and in the next intermission increase the quantity to a scruple, and go on to increase it until the buzzing of the ears, or sense of tension in the head, shows that the dose is sufficient. Subsequently, I keep at as large a dose as can be borne without much inconvenience, until the patient has passed the periods of two paroxysms without any return of the pain. The sulphate is given in divided doses, but as the intermission usually includes the night, and sometimes the night only, it is most convenient to make each

dose large. In using the arsenic, I have not found it necessary to regard the period of intermission, but have exhibited it morning and evening, and in very severe cases, if the patient is not delicate, I have given it at noon likewise. From five to seven drops of the solution may be given at first, and each dose may be augmented by one drop, until some nausea is produced. Then the dose may be diminished by two drops, and, if this does not occasion nausea, the same may be continued until the patient has been well two days. Each dose of the solution should be diluted by at least one tablespoonful of soft or pure water.

I have been thus minute as regards the administration of these articles, because I have found that relief has not been obtained by those of my brethren, who have not regarded the rules which I have mentioned.

There is another headache, which we often meet with, called the *Chronic Headache*. Probably all the cases which pass under this name are not strictly the same in kind; but if they would admit of any classification, it is not known to me. The pain in chronic headache is sometimes limited to the forehead, but, I believe, it more frequently extends over the whole or nearly the whole of the head. This pain appears, in some cases, to be constant; in others, it is seldom absent during a whole day. It may continue

many weeks, many months, and even many years. It would appear to be very severe in some cases; yet it does not, ordinarily, oblige the patient to relinquish his employments. This headache is not necessarily attended by any other derangement in the body, nor in the mind. Sometimes it takes away the cheerfulness, or, at least, prevents all gayety; but this is far from being true in all instances. I have had one patient, who was among our most active business men, who suffered under this complaint for many years, not less, certainly, than twenty. During this time, he employed the remedies, which I directed, both medicinal and hygienic, without benefit. He went abroad, and obtained the best medical aid he could find in London; and he consulted likewise more than one medical man among ourselves. By the advice of one English physician, he kept a seton in his neck for several months; but neither this nor any other treatment afforded him any relief. In this instance, as in many others, attended by obscurity, each physician was ready to suspect the existence of his own pet malady. Accordingly, one thought he was bilious, another that he was simply dyspeptic, another that he needed tonics, and another that there was some low inflammation within the cranium, or at least a determination of blood to the head. Ought not a case of

this sort to be considered as an affection purely nervous, according to the principles suggested in the beginning of this letter?

In every case of chronic headache it is certainly proper to examine closely and repeatedly all the functions of the body, and the state of mind, to ascertain if there is any cause on which the pain depends; and, if so, whether this cause can be removed. There is one set of cases, in which the pain in the head obviously depends on an affection of another part of the system. I refer to the cases, not very rare, where it occurs in children, during the period of their second dentition. Of this more hereafter. I believe that some derangements of the uterus, or ovaries, may give rise to this headache in females. It is among the concomitants of pregnancy in rare instances. I had one patient who recognized this affection as the evidence of pregnancy, just as most women do the occurrence of nausea and vomiting in the morning.

In regard to the treatment, I have very little to say. If the disease can be traced up to an affection of the digestive organs, or of any other part of the system, the appropriate remedies will suggest themselves. Otherwise, I can advise nothing better than a tranquil, though not an idle life; simple but nutritious food, exercise in the open air, as freely as it can

be borne, and a due regard to all the other hygienic rules.

There are other headaches, besides those I have enumerated, but none on which I have any special remark to offer.

LETTER IV.

ON EPILEPSY AND THE CONVULSION-FITS OF YOUNG CHILDREN.

NEXT among the diseases which we refer to the head, I have something to offer upon *epilepsy*. This, you know, is a disease which occurs in fits, or paroxysms; and these take place after very short warnings, or without any, so that often the patient falls down suddenly. Hence these are called *falling fits*. The essential symptoms are loss of consciousness, and spasms more or less severe and extensive. Most frequently, if not always, the head is drawn to one side with a twitching motion; a circumstance on which Dr. Marshall Hall lays great stress. Biting the tongue, and frothing at the mouth, often colored with blood, are common attendants. The duration of the paroxysm varies, from a few minutes to several hours. It does not, however, often exceed half an hour, except in the variety called apoplectic. When the spasms cease, and the consciousness is restored, the patient

does not at once recover the full use of his mind, but commonly falls into a heavy sleep, from which he awakes with a stupid headache. Then, in a few hours, or at most after a day, you will find him quite restored to his ordinary state. In bad cases the intellectual powers are gradually lost, and especially the memory. Sometimes a child, affected, for instance, at six years of age, continues to grow in body, and becomes a man in appearance, while his mind has made scarcely any advance. The loss of memory was most remarkable in Mr. P——, who belonged to a family distinguished for their intellectual powers. He had this disease for many years without any marked change in his mind, except only as to memory. About the time when the first Napoleon became Emperor of France, some reference was made to him; upon which Mr. P—— inquired who he was. His friend stated to him briefly the history of Bonaparte, in such language as most men would have used at that day respecting one who seemed to aim at universal empire. Mr. P—— then said he could not believe that story; that no man could be so bad. At this time Mr. P—— must have been hearing of Bonaparte every day for several years.

Besides the paroxysms which I have briefly described, many persons, subject to this disease, have

very slight affections, which are called *faint turns*, or by other names. In some of them you see very little, if any, change of the countenance. In others, the face turns pale, and then becomes very red, and the whole is over in a minute or less. The shortness of the duration of these *turns*, in some persons, is very remarkable. I had one patient, who experienced them very often, when walking, or when engaged in conversation, while those around him discovered no change in his appearance. The patient described them as consisting of a stoppage of all action of the mind, analogous to stoppage of light to the eye by bringing a dense body momentarily before it.

I believe that no patient has recovered from the epilepsy, in whom I have seen it associated with these slight turns.

A more grave affection connected with epileptic paroxysms is insanity. In asylums for the insane you will usually find instances of this kind.

I referred to *apoplectic epilepsy*, which has been described by Dr. Marshall Hall. It resembles apoplexy in its general characters, though the fit is accompanied by more spasms than usually attend apoplexy. But this last is ordinarily, if not always, attended or followed by some paralytic affection. This is not true of apoplectic epilepsy. Besides, this affection returns

again and again, though much less frequently than the common epilepsy. I had noticed this kind of epilepsy before reading Dr. Hall's work, and have a recollection of four well-marked instances of it. In three of them I believe every paroxysm was of the apoplectic character. In one, the first paroxysm was of this character, and the last; but, between these, epilepsy appeared in its common form. In each of these instances the patient died apoplectic, but not till after several years from the first attack. There was not in either case a *post-mortem* examination.

Since I have been engaged in writing these letters, I have seen, in consultation, a patient, who has been subject a year or more to the apoplectic epilepsy. I mention his case because I find that he is occasionally affected by the slighter attacks, which I have described under the name of *faint turns*. It is the only instance in which I have known these to occur in connection with the apoplectic epilepsy.

Epilepsy is spoken of as if it often terminated fatally. It undoubtedly shortens life in most, if not in all instances; but I have rarely seen life terminated directly by this disease. Epileptic patients will have many successive paroxysms, and die shortly afterwards; that is, within a few days, or a week or two. But, I believe, in these cases, there is some other dis-

ease, which is ushered in by the epileptic attacks. Here the epileptic paroxysms take the place of chills, which are the common precursors of acute diseases. The symptoms of the acute diseases in such cases are usually masked by epilepsy. I wish not to speak too confidently on this point; but this is the opinion to which my own experience has led me.

The proximate cause of epilepsy certainly exists in the nervous system, the brain and *medulla spinalis*. The nature of this affection of the nervous system is unknown, and not such as necessarily to leave any organic changes manifest after death. I must refer here to my remarks on diseases of the nervous system, in the last letter. Organic changes have been found in the brain after epilepsy; but they have been various in their seat, if not in their nature, and must, I think, be regarded as coïncidents, and not as proximate causes of the disease. I do not mean, however, that they have had no connection with the peculiar affection belonging to epilepsy, in the instances in which they have occurred. I am aware that at the present day pathologists are disposed to believe that some morbid state of the blood may be regarded as an irritant, operating on the nervous system, to produce this disease. I would not neglect inquiries connected with this view, but we must be very cautious not to

follow the practice of the old humoralists in imagining a change of this nature as the cause of every obscure disease.

The exciting causes of epilepsy are better known than the proximate cause; yet we cannot, in every instance, satisfy ourselves as to those. It would seem that any cause, disturbing the body or the mind, in an epileptic subject, may give rise to a paroxysm. Errors of diet are among the causes most commonly noted; great fatigue is also among the causes. In a young girl, in whom, perhaps, the disease partook of the hysteric character, paroxysms followed the occurrences which I will mention. When she was at a party with her little friends, where her spirits were much excited, and at the same time her food was less simple than common, the paroxysm was apt to occur. General Jackson, when president, made a visit to this part of the country, and she went, with others, to see the procession, as he passed through her town; a paroxysm followed. So did another upon seeing the "Conflagration of Moscow," an exhibition well known at the period of her youth. Again, she had a paroxysm on going into a crowd in a church, where an ordination was taking place. These were among the occasions which I call to mind; and from them you see the variety in the exciting causes of this disease.

A fright has been repeatedly noticed as occasioning a paroxysm. I remember one instance, of a lady, past middle life, whose health had been good until a sudden fright occurred, which was followed by epilepsy. From this time the disease continued. I saw her many years afterwards, and then the powers of the mind were much impaired, although not lost.

I believe that, in a certain proportion of the cases of epilepsy, the disease is susceptible of relief, so as not to return without the operation of some powerful cause. This relief is not to be attained by any medicine with which I am acquainted, but by diet. The diet, which I have directed with success, has been almost purely vegetable. I have directed an entire abstinence from flesh and fish, but have allowed the use of milk and butter, and occasionally of eggs. I have thought it necessary to use these last watchfully; that is, in moderate quantity, mixed with farinaceous substances, as in puddings, and at those times only when the health was at the best. I was led into the use of this diet gradually; I hardly remember by what steps. Under the use of it I have seen many recoveries; yet, in the larger proportion of cases, it has failed. But to this I must add, that I have not known an instance where the patient has ultimately recovered after trying this diet without success. Now,

of the cases in which it has failed, probably every one employed various remedies, not only under my direction, but under that of others, and those, skilful physicians. Every medical man knows that in this dreadful disease, when long continued, the patient or his friends resort to every one who holds out a prospect of relief, whether he be a regular or an irregular practitioner.

It is proper to add that, when directing this diet, I have also directed that every possible precaution should be taken to guard against fright, or agitation of mind, of any kind; against over-fatigue, excessive indulgence in food, and all other exciting causes. I will give one instance, in reference to this point, among several which I have known. A gentleman brought me his son, a boy of about twelve years of age, whose health was good in other points, but in whom epilepsy occurred under its most certain characters. This was in February. The gentleman lived in the country, and I did not see him till the next September. He then told me that his son had had only one attack; and that in August, after an excessive indulgence in green apples. The apples were subsequently thrown off. This was nearly twenty years ago, and the patient has never had another attack.

In cases of apoplectic epilepsy I have not had an opportunity of trying the diet above described. In

one I believe it was tried, but I am not sure how fully. I should think it worthy a trial in such cases, but I should not direct it with much confidence of success. In such, as in all the other cases, a careful attention to hygienic rules would probably be of some benefit.

The *convulsive fits* of children bear a great analogy to those of epilepsy. I cannot point out any certain signs by which they may be distinguished from epilepsy, yet they do not seem to be quite the same. In most instances they are not repeated; yet in some cases they are repeated often. They do not ordinarily continue after seven years of age. If they should so continue, I think the fits would be called epileptic. As in epilepsy, the main symptoms are spasms and a loss of consciousness. These fits are hereditary in some instances. They begin in the early periods of infancy. As in epilepsy, a paroxysm may be induced by various exciting causes. The fits occur during the period of dentition, and are sometimes evidently connected with a tooth pressing on the gums. Errors of diet are a common cause, and, when the powers of digestion are impaired, very slight errors are sufficient. These fits occur like chills, as the heralds of acute disease. Thus, in a boy who had been affected during dentition, subsequently, a fit ushered in a pneumonia. After

this, I vaccinated the child, and then said to the mother, that it would not surprise me if a fit should occur at the time of the constitutional affection from the vaccination. On the eighth day from the vaccination the fit did occur. In one family, now living, three children have been the subjects of these fits. They have occurred under the variety of circumstances above described. In one winter each in succession had bronchitis, and, a few weeks afterwards, each had scarlatina. At the commencement of each of these diseases the fits occurred in every one. I one day said to the mother, I suspect that you or your husband may have had this disease in your childhood. She replied, "We both had it."

These fits cause great alarm to the parents and attendants, and violent remedies are expected. It is important to understand that they are not always needed. If the stomach be full when they occur, or if any extra food has been taken, or if there be nausea and retching, it is well to administer an emetic. If there is costiveness, an injection into the bowels may be the first remedy. A warm bath should be used early, as it is a safe remedy, and often beneficial. If the fit is violent, or is frequently repeated, and the emetic is not specially indicated, an active cathartic may be given. I think this will commonly be found

useful; for, even if the alimentary canal be in good order, and some acute disease is to ensue, this remedy will probably be beneficial. Where the fits continue in a vigorous child, where the pulse is firm, more especially if the face be flushed, and the head hot, one or two leeches may be used with advantage. In obstinate cases, chloroform is said to have been useful. This I have never tried, and I should be slow to do so. If employed at all, it should be with extreme caution. A few drops may be sprinkled on a handkerchief, and this may be held near the nose.

It is quite important that the parents of children subject to this affection should be apprised that violent remedies are not always to be employed. It is not wonderful that the parents are alarmed in such cases; but the real hazard is very slight. It is true that death sometimes follows these fits, and even speedily; but I presume that this always happens, not from the fits, any more than it would from chills, but from the disease on which the fits are attendants. In such cases the real disease is masked.

Children subject to these fits should be guarded against all the exciting causes. But for this purpose they should not be kept in a nursery, but should be invigorated by exercise in the open air, and be inured, as far as possible, to the irritations necessarily attend-

ant on life, though protected from all extraordinary causes of excitement. Simplicity and regularity in diet should be rigorously enforced. The hours for sleep should be regular, and they should go to their sleep in a calm state, so far as it is possible to effect it.

Convulsion-fits often occur in the disease commonly known under the name of acute *Hydrocephalus*. Hence, when these fits occur and continue with severity, that disease is apprehended. I believe, however, that when the fits occur in one previously in apparent health, and prove severe, the hydrocephalus rarely follows.

I wish also to say, in this connection, that hydrocephalus is supposed to be present in some cases where the real disease is typhoid fever; for this fever is not readily distinguished in children, especially when there is great stupor. Yet a careful examination of the whole history will usually remove all doubt. In such instances, when a child recovers, undue credit is given to the remedies employed. The evil of this error is that the same remedies are inflicted upon other children without benefit. I relieve my conscience in stating this. Early in life I thought I had saved some children under hydrocephalus by shaving the head and keeping it blistered. In one instance I kept the blister

open for many days, and rejoiced in the final success of the remedy. More enlarged experience satisfied me that in this, and other such cases, the real disease was typhoid fever. Further than this I have not any remark to make on this hydrocephalus, the real nature of which is much better understood now than in the early part of this century.

LETTER V.

ON APOPLEXY AND PALSY.

I HAVE a little to say about apoplexy, into the description of which I shall not enter. It is to the treatment I wish especially to call your attention. This disease is very commonly spoken of as belonging to old age, and as occurring mostly in persons of full habit, with large heads and short necks. But it is also seen, and not very rarely, in middle age, or even earlier; also it occurs in persons of a spare habit, without the large head and short neck. When apoplexy does not prove fatal, it is usually, if not always, followed by palsy. Palsy occurs, indeed, without being preceded by apoplexy. In many instances there is a very slight shock, in which the patient loses his consciousness momentarily, or in which he may be said to be confounded for a moment; and then there will follow a numbness, or loss of sensibility, and more or less diminution of the power of voluntary motion. These last are the signs of palsy, and they

may be increased to any degree, rapidly or slowly, until, perhaps, there is an entire loss of sensibility, and of the command over the voluntary muscles. Palsy following apoplexy is almost invariably limited to one side of the body. It is common to find persons in middle life, sometimes under forty, sometimes past fifty, in whom one of the slight shocks, which have been described, is followed by slight palsy, and that not very lasting, sometimes not continuing more than one or two days. The patient suddenly falls down, perhaps, and it is thought he may be faint only. He soon rises, and does not, on the first attack, always show any palsy. More frequently, one of the extremities is affected, or the muscles of the face, or the organs of speech. These attacks may occur at various intervals, of from a few months to two or three years, and at last prove fatal; the palsy having become more severe, perhaps, after each apoplectic attack. I call these slight attacks apoplectic, because there is usually a momentary abolition of sense, if not of motion; and principally because I have reason to believe that they have for their immediate cause an effusion of blood, though a very small one, within the cranium.

I have given this brief description of a certain class of cases, because I consider them more susceptible of relief than other cases of apoplexy and palsy. If

the subject of these attacks is of a constitution to bear it, and especially if the symptoms be rather more severe than I have described, or if they should not be lessening within twenty-four hours, venesection is proper. But, in these cases, there is not so much risk at the moment, as there is of their recurrence at subsequent periods. Hence, the great object in the treatment is the prevention of subsequent attacks. I should have made my remarks on apoplexy and palsy before those on epilepsy, had I not wished to state first the results of my experience of a vegetable diet in this latter disease. Influenced by my experience in this, I have been led to the same treatment in cases such as I have described above. Besides advising moderation in all things, I have directed the diet just mentioned to be continued indefinitely. If one says to a man in middle life that he should never eat meat any more, he may rebel. He will think that this rule calls for more self-denial than it really does. It is enough to suggest abstinence for the present, and at the end of several months, or pretty certainly in a year, most men become more indifferent on this subject than they had anticipated. So far from losing muscular power, a man under this treatment may get to endure long-continued labor, and to make as great exertions as prudence would permit. The exercise is

important, and should be a part of his treatment; but he should never permit himself to make violent efforts. He should also be enjoined, as far as possible, to abstain from anger and anxiety. And, further, when I advise abstinence from animal food for an indefinite period, I do not mean to say that this abstinence should continue for life. I know not what length should be fixed upon; but this appears to me reasonable, that the patient should not return to the use of animal food so long as he has very good health without it. Whenever it appears that he suffers for want of such food, let him cautiously resume the use of it.

Take a brief statement of two cases, in which this treatment was adopted; in both of which there had been more than one attack within twelve or eighteen months before a strict compliance with the diet proposed. One gentleman had two attacks, so slight that their nature was not certainly known. In twelve or eighteen months from the first he had a third. In this the paralytic symptoms were unequivocal, and continued so for a few days. The right hand and the speech were principally affected. He did not entirely recover the use of his hand; and the failure in speech, though very slight, continued for a long time, perhaps to the present day. The last attack occurred more than five years since; but, under the treatment above

described, there has been no recurrence of the disease if we except once only, when there was a very transient feeling, reminding him of the former attacks.

The other instance was that of a medical friend whom I valued very highly. His first attack occurred in April, 1845, after a period of intense professional labor, and the day after making a difficult and tiresome dissection. The left side was paralyzed, not very strongly; his intellect was not affected in any way. He was bled at this time, and at my suggestion he adopted the diet which I have mentioned. At the end of three months he felt perfectly well, and relinquished the diet. In March of the following year he had a second attack of paralysis, in which the right side and also the muscles of speech and deglutition were affected. He was very soon well enough in this, as in the preceding year, to return to his business; but the recovery was not so complete. His speech was very slightly embarrassed, and the motions of his right hand were not quite perfect for two or three years. Immediately after this attack he began the vegetable diet anew, and continued it until his death. This took place from accident in the year 1853. The recovery progressed regularly soon after the second attack, and during the last four years of his life his health and vigor were as good as they had ever been.

I hope that you will not understand me to say that this treatment will always be successful. But I feel assured, first, that it is safe. Therein it differs from any active medical treatment; and I say, moreover, that it offers a better chance for permanent relief and a restoration to useful health, than any other mode of treatment with which I am acquainted.

I must make a few remarks on the *facial paralysis*, the full history and explanation of which would be enough to immortalize Sir Charles Bell, if he had done nothing more. You are aware that this disease is traced to an interruption of the nervous influence in the facial nerve. First, I will remark that it is often preceded or accompanied by a pain in the ear; and once I saw it preceded by hemicrania for two or three days. In such cases, as soon as the paralysis shows itself with its peculiar character, the nature of the disease must be obvious. When there is pain in the ear, it is advisable to commence the treatment with a good leeching, or cupping. I say this pointedly, because in such cases there is hazard that the whole auditory nerve may be involved in an inflammation. Should this happen, deafness may follow, as well as a paralysis of the face. But in most cases of the disease, I believe a recovery would be spontaneous, without treatment. Yet, if the patient is in good vigor, it

will be well to use leeches and a blister behind the ear.

I have mentioned this disease mostly to introduce two cases. A physician once called on me with a facial paralysis. He was of a full habit, and his face was always very red, though a tee-totaller. His father had died of apoplexy, and he had had a brother and a sister affected with hemiplegia. It is not strange that this patient believed himself to be threatened with this family disease. In truth, he was not acquainted with the characteristics of this variety of palsy. He was desponding. I could not deny that, in his case, any symptom of paralysis was a proper cause for alarm; but, on the strictest examination, I could not discover any affection of the mind, nor diminution of the sensibility in any part of the body; and the palsy on one side of the face showed itself only when the muscles of the face were called into action, and in the inability to close the eyelids. This in some measure was a test case; a test as to the confidence with which the diagnosis and prognosis might be declared. I ventured to assure the patient of his safety, and that he would probably recover in a short time. He could hardly place faith in me, but the result was entirely favorable; and now, at the end of twenty years, he is in good health. This case

shows that we may place great reliance on the peculiar symptoms of this kind of palsy; and that it is quite a different affection, as regards its seat, from the palsy following apoplexy.

I shall state another case, to show that it is not always safe to promise a recovery from this disease. I have seen more than once instance in which the disease proved lasting. In the one I refer to, the disease had existed for many months before I saw it. The palsy had diminished, but had not disappeared. There was frequent pain in the head, and occasionally this became severe. Yet in most respects the health was very good. It appeared that, at some time not long preceding the paralysis, the patient had received a violent blow on the forehead. Under these circumstances, I apprehended some organic change within the cranium. The patient was benefited by a vegetable diet. While he pursued this, and restrained himself to a very moderate quantity of food, everything did well, except only the remnant of the paralysis. He was convinced of the benefit of this course, but he declared to me that his hunger was so great that he could not endure the abstinence. At length, after a new indulgence, stupor came on, and under this he died in three or four days. On examination, there was found a tumor in the anterior lobe of the

cerebrum, on the side affected. Here there was a complication, manifested by the severe pain in the head, at intervals, and by the undue prolongation of the palsy.

There is a palsy produced by *lead*. In some cases I have found it is sufficient that the patient should no longer use the water, or meddle with any other material, in which lead was contained. I deem it important to state this, as showing that active and powerful treatment need not be adopted in mild cases. But, in cases where the paralytic symptoms are strong, I feel no doubt of the advantages which may be obtained from the use of strychnine. On this subject I will refer you to a report drawn up by my friend, Dr. Horatio Adams, of Waltham, and published in the fifth volume of the Transactions of the American Medical Association. I will here add, in respect to all cases of disease produced by lead, that I believe the hydriodate of potass may be used with decided benefit. See, on this subject, the British and Foreign Medico-Chirurgical Review, Nos. 21 and 22, for January and April, 1853.

Before leaving this subject of palsy, I wish to refer to an affection, which, I think, may be called mimotica, or mimicking palsy. Patients now and then present themselves having symptoms resembling those of

paralysis, and exciting their apprehensions therefore. Such persons do not, ordinarily, manifest any agitation of mind; on the contrary, they preserve a calm demeanor. At first view, one must partake of these apprehensions, which, however, will commonly be removed in a few days, if not on the first examination. First of all, the symptoms are what are called subjective, and not objective. There is a numbness in various parts, shifting from place to place, and seen manifesting itself in many parts at the same time. This is attended with a feeling of stiffness in the fingers, or elsewhere. The patient will move his fingers very well, so far as you see; but he *feels* a difficulty in doing it. Sometimes there is also a pain in the course of the spine, or some unusual feeling about the head. These symptoms do not come on suddenly, as from a stroke on the head; on the contrary, they crawl on gradually, and the patient cannot well tell when they began. There is likewise a want of steadiness in the symptoms; they consist in the feelings of the patient, and those feelings are shadowy. The patient speaks on the subject with calmness; but usually there may be discovered a dejection of spirits, and an anxiety. If these can be removed, the symptoms are alleviated. Yet it is not to be understood that the feelings are imaginary; they really exist.

The important thing in the case is that the physician should feel assured as to his diagnosis. To do this, he must make a careful inquiry, and it is better that he should not hurry to a decision. Then, if he does decide that the case comes under the above description, the patient will place confidence in his decision, and be encouraged by it. I once had a case where the father of the patient had had apoplexy, followed by hemiplegia. Of course, I felt some doubt in this instance; but, after examining the patient twice with great care, I became decided in my opinion; and, by communicating my confidence to the patient, his mind was soon relieved. This occurred several years since, and the patient is now in very good health. In this instance the patient had been exhausted by labor and anxiety; labor of mind, and not of body, and without due exercise abroad. The same is true in most instances; or, if not just so, there has been some cause operating to exhaust the powers, and usually such as to waste the flesh before the attack. Relief is to be found by rest from mental labor, relief from anxiety, amusement, change of place, as in travelling, tonics and stimulants. It is one of the affections of the nervous system in which wine affords great relief. It is only necessary that the use of it should be regulated with discretion.

LETTER VI.

ON CHOREA, NEURALGIA AND PAIN.

CHOREA is one of the nervous diseases. I shall not describe it; but I have something to offer upon its treatment. In a nosological system this would have been brought into connection with epilepsy. This disease usually occurs in young persons; and, with rare exceptions, terminates spontaneously in from two to four months. It often occurs during the period of the second dentition, and sometimes shows itself the second or third time, at about the same season of the year. It is said to be chronic in some instances, and I have seen cases which were so regarded. But I feel assured that they were different in their nature. In the treatment of it various tonics are employed with success. Iron, especially the carbonate of iron, in large doses, also the shower-bath, have removed the disease in a very short time. I have seen the valerianate of zinc useful, where other remedies failed, and where the patient could not take the oil of turpentine. This

was in a young lady past eighteen. But the great remedy is the oil of turpentine. As it is not an agreeable one, if the case be mild, other remedies may be tried first. In a severe case, however, or where other remedies fail, this should be used. The oil should be given in such doses as the patient can bear. In a very young child you may begin with five drops three times a day; but the dose should be increased steadily until relief is obtained, if no objection occurs. The objections are, first, nausea; but this is not common; second, too great an operation on the bowels; and third, and chiefly, irritation of the urinary organs. If employed too freely, it will produce bloody urine and great distress. If the attendants are aware of these difficulties, and watch for them, no serious inconvenience need ensue. A child of eight or ten years of age will sometimes bear a teaspoonful for a dose. This remedy is successful, whether given early or late in the disease.

I will only add, that I never saw an instance in which chorea proved fatal, except once. The patient was, I think, twenty years of age, and in full health previous to the occurrence of the disease. The spasmodic affection was very severe and very constant. I saw her only a day or two before her death, under the care of a judicious and learned physician, in whose

treatment of the case I saw no fault. Unfortunately, no autopsy was permitted.

At the present day we hear much of a disease called *Neuralgia*. This name is applied to any case of severe pain which cannot be traced to inflammation, nor to any organic affection. I have sometimes ventured to laugh on this subject, saying that the patient informs the physician that she is frequently troubled with a severe pain, without any other symptom of disease; and she asks what is its nature, and what is its cause. She says it is *pain*, in plain English, and he answers her in Greek, that it is a *neuralgia*. It is, no doubt, a satisfaction to her to know that her disease has a distinct name. I rather prefer, however, to reply that it is a pain, and that that is all we know about it. I say this the more because there is an affection properly named neuralgia. Sauvages, the father of nosology, admitted in his system an order named Dolores. That was not plain English, but it was plain Latin, and gave a name to the diseases which consist in pain only; or in pain only, so far as we know. Now we know that, when pain exists anywhere, as we know with regard to every sensation, it is transmitted through the nerves to the brain and to the mind; but we do not say that the nerve is diseased, or that the disease is situated in the nerve

in every case where pain occurs. But there is a disease where the pain appertains to the nerves themselves, and this is shown by its limitation to the ramifications of some one nerve, or branch of a nerve. Thus, when there is a pain passing from directly below the eye, and spreading over the cheek, no other symptom coëxisting, we perceive that this belongs to the infra-orbital branch of the fifth pair of nerves. Or, when a pain is passing in the neighborhood of the great trochanter, following the course of the great sciatic nerve, and dividing as that nerve branches upon the leg, we consider it a disease of that nerve. It is a painful affection, appertaining to the nerve itself; being a disease in the nerve. If we have a pain seated in the epigastrium, limited to a small space, it may, perhaps, be an affection of a nerve in that situation; but we have no evidence that it is so, and it is an assumption to call it a neuralgia. We do not find it following the ramifications of any large nerve. I do not here wish to quarrel about words, but it appears to me that there is a real distinction between the things themselves, and therefore they should be called by different names. When this is not done, the physician, who has been able to give relief to a severe pain in any part, urges the trial of his remedy in cases of proper neuralgia; but the patient, who

employs the twenty successful remedies recommended by as many different physicians, is wearied, and, perhaps, injured, and the profession is discredited.

The true neuralgia is very irregular, ceasing for a long while, and then recurring; or at other periods felt every day, and almost every hour; but the disease is very rarely permanently overcome by remedies. This is not true in regard to other cases of severe pain, where it is pain alone. The disease in these cases is often very obstinate, and resists the influence of powerful remedies; but, most commonly, temporary relief can be obtained from narcotics and anæsthetics; and often permanent relief from quinia and iron. Among the narcotics, opium is, perhaps, the most certain; but its subsequent effects make the use of it very inconvenient, and often very deleterious. If other narcotics can answer the purpose, even less perfectly, they are to be preferred. Of these, the most powerful which I have employed internally is stramonium. We have a guide in the use of this in its effects upon the vision. When this is impaired the dose must not be increased, nor the medicine repeated, until the blindness has subsided.

For permanent relief I believe that quinia may be relied upon more than iron. To be effectual the quinia should be given in as large doses as the patient

can bear, as is done when it is given for intermittent fever. It does not appear that the benefit depends upon the tonic power of the quinia. The good effect of this article in arresting the progress of intermittent fever is not in proportion to any tonic effect. It would seem rather to depend on a power to lessen or remove the susceptibility to disease. Now, I have thought that the quinia acts in the same way in other diseases, even when not intermittent. I shall have occasion, in subsequent letters, to point out instances in which this power is manifested. Probably arsenic operates in the same way.

Narcotics applied externally have often a good effect in cases of simple pain. Among these I give a preference to aconite. I use the saturated tincture, which is a cheap article compared with any of the alkaloids. Some care is necessary in the use of this article. It should be rubbed on the part in pain, or as near to it as may be. If the nurse who applies it gets any upon her finger, and then touches her eye, great pain ensues, and sometimes the eye becomes inflamed. It is, therefore, proper to direct that a basin of water be placed close at hand before beginning the application; by this the nurse will be reminded to wash her hand as soon as the rubbing is finished. The trial of this article is most satisfactory when some stinging or

smarting is experienced during the rubbing. Usually some numbness in the part follows the application, and occasionally this numbness continues a long time.

LETTER VII.

ON SOMNAMBULISM, ANIMAL MAGNETISM, AND INSANITY.

As I have formerly said, there are diseases of the nervous system which cannot be explained; for we cannot explain the mode, in which the common, or normal operations of this system take place. At the present day no one would undertake to show what is the difference, as to the state of the brain and nerves, in sleeping and watching; but thus much, I believe, may be safely asserted, that the whole of the nervous system is not uniformly affected in an equal degree during sleep. Sometimes the senses, the mind, and the muscles of locomotion, all equally sleep; this is sound and perfect sleep. But, more commonly, sleep does not take place equally in all those parts; and, especially, the mind is often in an active state while the senses and the muscles sleep. This is called dreaming. Then a man keeps quietly in his bed; and, as dreaming is a common occurrence, it excites

no wonder. But, as it is less common, it excites more attention when you hear of one who frequently rises from his bed in the night and walks about. Such a person is called a sleep-walker, or somnambulist. Some somnambulists engage in the business and labors which belong to their waking hours. A woman sets her breakfast-table; a man goes into the field and hoes his corn; and sometimes the student occupies himself in writing. Here it seems difficult, at first view, to distinguish between sleeping and waking. Yet, ordinarily, there is something in the conduct of these persons, by which it is obvious that they are not in the natural waking state. In general, they do not talk, and do not seem to hear one speaking to them in common tones. If roused by violence, they show surprise and confusion of mind. If left to themselves, these persons usually return to their beds, and the next day are not at all aware of what has occurred during the night. I say during the night, for I do not recollect any instance of a person, falling asleep during the day, having been affected by ordinary somnambulism.

I have made rather a long preface to an interesting case, which I wish to relate to you. I will not say that it is one of any great practical value, but it may throw some light upon phenomena, which fall under

eommon observation, and may prevent too much apprehension, if a similar ease should ever come under your own eare.

The ease I refer to was that of Miss S——, about eighteen years of age, who was under my eare more than forty years ago. She was a visitor in the town, at the house of an aunt, and, though her family was well known to me, I was not then acquainted with their eonstitutions. I will say now, what I learned subsequently, that they were all very liable to nervous diseases, and especially to affections of the brain. This young lady, very soon after I saw her, and I believe on the first day, was singularly affected in the early part of the evening. It was said that she had fallen asleep and then roused to the state in which I saw her. In her ordinary state she was extremely modest and bashful. Now, I found her with her eyes widely opened, instead of being downcast, and with an air of boldness. She appeared to be in some distress, and referred to the epigastrium as the seat of her trouble. At some moments she appeared to have extreme pain there. She was not tranquil at any time, but occasionally the muscles of her limbs and those of the abdomen beeame rigid. Those of the faee were affected in like manner, and, being accompanied by staring, she had an expression of sternness.

But these tonic spasms were transient, and most of the time she was at rest. She talked freely, as if awake, but in a manner totally different from her own when in a waking state. She had a certain set of notions, and all which she said conformed to them; but these notions, as well as her manner, were totally different from anything shown in her normal state. With all this there was not any remarkable change in the organic system. She had nothing which you could call fever. She did not take much nourishment, but she took enough to support her. The paroxysm under which I saw her subsided after a few hours, when she had a natural sleep; and the next morning she appeared very well, although enfeebled. A paroxysm of the same general character occurred every evening for about three weeks. In these paroxysms she remembered very well what had passed in the preceding ones; but in her normal state she could not recall anything, which had taken place in the morbid state. In the morbid state she addressed those about her as knowing them, but to three or four persons whom she saw the most, she gave false names, and uniformly recognized them under the same names; but they were the names of real persons. To her aunt she gave the name of an old nurse whom she had known; and she called me by the name of one of her brothers,

considering me as being her brother. She objected to my leaving her, and made me promise to see her early the next evening. The next evening, if I did not enter until the paroxysm had commenced, she would reproach me for being tardy. I saw her several evenings before the paroxysm, and noted the manner of its occurrence. While lying quietly on her bed she would undergo a sudden change. She would start, and her countenance would become distorted. Her eyes would be opened widely, and she would strike her hand upon the epigastrium, appearing to be in great agony. With this, or shortly after, some spasms would take place, more or less extensive. For a time her jaws would be set, and she would utter no articulate sound, though her groans would indicate suffering. It soothed her if I removed her hands, and pressed my own on the epigastrium; and the more, if I did so with all the strength I possessed. In a longer or shorter time she would become calm, and then I would commonly have a very pleasant conversation with her. She never lost her own identity, but I believe she did not know where she was, and showed no curiosity with respect to her situation. On some occasions she manifested violent emotions, and on one evening particularly, jumping from her bed, she climbed up the bedpost like a kitten, and afterwards made an attempt to

jump out of the window. In this she was quite in earnest, and it required one person in addition to myself to prevent her from accomplishing her purpose. The most remarkable thing was the double consciousness; for, though she never considered herself as a different person in the morbid state, yet she was of a totally different character; and in that state she could not be made to remember what had occurred in the preceding day, as in the sound state she did not remember the occurrences of the night. Yet, in each state she recalled all which had taken place in the same state, during the period of her sickness. Her memory seemed to have two distinct store-houses; one for the normal and one for the morbid state.

The disease was a new one to me, as it was also to the older practitioners who were called to consult with me. Remedies were tried, corresponding to the different notions suggested as to the nature of the difficulty, but without any benefit. I very soon became satisfied that medicine was not of any use to her, and aimed only to avoid everything which should aggravate the trouble. The disease subsided gradually, but left her much enfeebled.

I learned that several months before I saw her, she had undergone a similar course of disease, in another town, not at her own home. At that time, the sick-

ness had been shorter, and I believe not quite so regular in its course. She lived many years after the disease which I have described, and always exhibited marks of a nervous temperament; but she never again was affected with double consciousness. She was married, and then lived in this city. After several years she became pregnant. She had not quite reached her term when labor took place, and she gave birth to a dead child. Severe convulsions ensued, under which she died. It happened at a time when I was absent from the city, so that I am not able to state the particulars minutely. I ought to say, respecting this patient, that she was an amiable and intelligent woman; not at all whimsical, nor irregular as to her conduct; on the contrary, quite discreet.

A knowledge of this case, and of others similar which the books furnish us, has helped me in forming opinions on the subject of *animal magnetism*. It shows that the human mind can pass from a natural to a morbid or unnatural state very suddenly; and that, under its change, it may temporarily view subjects in a new light, and be affected in a manner quite different from that which is common to it. When I first saw persons in the magnetized state, as it is termed, I was struck with the resemblance of their cases to that of my interesting patient. I examined

several persons in this magnetic state. All, whom I saw, were females, and I believe all fairly ranked in the class of nervous people.

The doctrine commonly received is this: that one person is capable of throwing another into the magnetic state by some influence, which he exercises over the subject. But it is notorious that the magnetizer cannot succeed with all persons; and, indeed, only on a small proportion of persons. Now, I believe the true doctrine is this: that there are some persons who can go into the magnetized or somnambular state, and, yielding themselves up to the operator, they fall into this state. It is not that the magnetizer possesses any peculiar power; but that the *magnetizee*, if I may coin a word for the occasion, is liable to be affected in a peculiar way, and becomes so affected, whenever solicited by one professing to possess a peculiar power or faculty. There is not any trick about this. The magnetizee is really brought into a state different from the normal state. This state is exceedingly like, if it is not identically the same, as regards its essential characters, as that of my patient under double consciousness. We had had no experience of this animal magnetism when I attended Miss S——, whose case I have described; but, at that time, I began to think that I had some influence in producing the nightly

return of the morbid state; because this usually took place soon after my entrance into the patient's room; so that, at last, I ceased my regular attendance in the evening, and, as I suspected, with benefit to the patient, although the change was not effected immediately. At the time that Miss Brackett was distinguished as a *magnetizee* in Providence, and when there were two other young ladies there distinguished in the same way, I visited that place for the purpose of seeing them. Having these notions in my mind, I asked Miss Brackett if she had ever been subject to somnambulism. She answered that she had not been, but that she had a brother who had been a very remarkable somnambulist. He had hoed his corn in the night, and done various other things, such as are not often met with. This corresponded with my opinion, previously entertained, that there was a tendency in the constitution of the subject to somnambulism. In this connection it should be remembered that the first change ordinarily produced in this process of animal magnetism, so called, is to put the subject asleep. There she remains unless the magnetizer uses his influence to produce a partial wakening. This wakening is an exhibition of the double consciousness. In Miss Brackett's case I found that, when in this abnormal state, she remembered what had befallen her

when in the same state at a previous time. During the magnetic sleep the subject continues to feel a dependence on the magnetizer, so as to awake whenever he makes known to her his wish that she should wake. It has been said, indeed, that the magnetizer can exercise an influence to make the subject sleep, or wake, without making his wishes known to her by any sign. This I doubt. I have witnessed efforts of this kind; but, upon close watching, it was plain that no effect was produced until the subject was apprized of the design of the magnetizer. And in cases related to me by others, I never found one where it was proved that the magnetizee was influenced without any sign from the magnetizer.

There was one remarkable instance, which fell under my own observation, and which I will relate. A number of gentlemen, principally clergymen and physicians, were collected to see an exhibition of animal magnetism by one of the first *professors* of the art among us. After various experiments, the magnetizer informed us that he should now act upon the magnetizee without her knowing his design; and he asked us to keep her engaged in conversation so that she might not notice his movements. Accordingly, several gentlemen surrounded the lady, while the magnetizer seated himself at a distance, but kept his eyes fixed

on the spot where she sat. I took my station with apparent carelessness, but at a spot where I could watch both the parties. For a long while he kept his gaze upon her, while he was designedly screened from her by the gentlemen around her. At length there was a break in the circle for a moment, so that she could see her friend, the magnetizer, and become aware of his fixed look. Instantaneously her eyelids began to droop, as they had done in each of the previous instances, in which he had operated on her; and within a minute she was in the magnetic sleep. It was perfectly clear that she was not influenced until his object was manifested to her.

The pretensions of magnetizers have gone further. They tell you that their subjects, under the influence of animal magnetism, possess the power of *clairvoyance*. That is, they maintain that these subjects can see what is passing in another room, or in another house, and even in another city from that in which they are placed. Thus, they are supposed to see through opaque substances, and even at distances at which vision is impossible; and they profess an ability to tell what is doing in foreign countries. This power being admitted, those who have faith must be prepared to believe that these magnetized persons can look through the solid walls of the human body and

point out the seat and the character of internal diseases. To all this I have to say, that I patiently examined into the evidence of such a power, and became entirely satisfied that it had not any existence.

Miss Brackett being left under my influence by the gentleman who had magnetized her, I requested her to travel with me *in the spirit* to my own residence. To this she assented. I then designated the road by which we should go, and from time to time asked her to stop and tell me what she saw. She replied to me with great cheerfulness and readiness. But, in every instance, her answers were such as were suggested by my remarks, or else they consisted of vague generalities. In this way I led her sometimes to give answers consistent with the truth; but oftener her answers were ridiculously inconsistent with it. I satisfied myself that she was a very honest girl, and failed because she attempted an impossibility.

It is well settled among those who have studied the human mind, that it has two modes of getting knowledge. One is by sensation, through the eye, the ear, etc. The other is by consciousness, by which any one may be apprized of what happens in his own mind. Now, this doctrine of clairvoyance is that there is some other way, or avenue, by which knowledge may come into the mind. I say, simply, that all such pre-

tensions are set aside, as soon as they are calmly and thoroughly examined. They have been brought forward in all ages; and I presume that there cannot be found any nation, in which they have not been professed by some one at every period. But when called upon for such proof, as the case will admit, the pretension has always been shown to be groundless. This has held true in our New England from the time of the witches to that of the spirit-rappers of the present day. The same pretensions will, probably, continue to be held up in different modes till all mankind become enlightened.

I know not when I shall find a proper place for a few words respecting the treatment of insanity, or diseases of the mind, if I do not avail myself of this letter. Though insanity differs in respect to its nature, as well as in respect to its degree, and is no more one and the same thing, than disease of the lungs is one and the same thing, yet there is one remark, as to its treatment, which applies in almost all cases. This remark is that the patient can be treated with very much greater advantage in a public institution, an asylum, or hospital, than in a private house. The patient's own house is, with very rare exceptions, just the worst place for him. The sufficient reason is that the patient is, usually, much more uncomfortable in

his own house than in an asylum. Even in the slight cases, where the patient is said to be only *nervous*, in common parlance, if he will not engage in his accustomed employments, especially if he is dissatisfied with those around him, he is made more comfortable at the asylum. The same is true in regard to the octogenarian, whose mind seems worn out, and who has become jealous of his family and friends, and in turn of every attendant. All are ready to agree that the violent and outrageous are best guarded in a hospital. Of the truth of these statements I could bring abundant evidence. The explanation is this. The patient, in his own dwelling, is accustomed to exercise certain rights and enjoy certain privileges. This is true, whether it be father or son, mother or daughter. But, when deranged in mind, the patient is subjected to some restraints, or, at least, he thinks he is; and these restraints come from those, whom he regarded as his friends. He then believes that his friends have changed, not that he has; and therefore he resents what he considers as injuries, or insults. There are other cases, where the spirits are depressed, and gloomy apprehensions engross the mind. In these cases the sight of near friends adds to the trouble. Remove the patient to an asylum, and new trains of thought and of feeling are produced. Perhaps the

real pain of a separation from home-friends may counteract the disposition to dwell on imaginary causes of trouble. At any rate, I find that the patient gets relief at the hospital.

LETTER VIII.

ON DENTITION AND THE PERIOD OF WEANING.

Children usually begin to have their first teeth about the seventh month, and continue to be *teething*, as it is termed, for about two years. I have known the dentition to be terminated at the age of twenty-one months; and in another case, or more than one, it has not terminated until the age of forty-two months, the subjects being equally healthy. It is well known that, while the teeth are coming through the gums, children are liable to diseases of various kinds, more or less severe. Men who reason without observing, are very liable to fall into errors. Such an one may discredit my statement, and ask why disease should attend dentition, since this consists only in the formation and growth of certain parts of the body. It is not true that we suffer during the whole process of forming the teeth. The germs are formed in the fœtus, and there is no period in which teeth are not forming, from birth, until we arrive at the age of

twenty or thirty. It is only when the germs are swelling, and are ready to burst; or, speaking literally, when the teeth are undergoing the last rapid enlargement, and are to be brought through the gums, that the liability to disease is manifestly connected with dentition. Whatever a reasoner might anticipate, we know that the system sympathizes with, or is affected by, any new or uncommon local change; or, at least, that it may be so affected. This is more readily understood when the new process is a morbid one; as when, instead of the common nutritive processes, an inflammation is set up in any part. But in various normal processes, besides dentition, the same thing is seen. We see it attending the changes belonging to the age of puberty, and again in pregnancy. Parturition often commences with a chill, just as a symptomatic fever does; and lactation almost always, at least the first time, commences with a chill, followed by heat, by headache, and other phenomena of symptomatic fever. Even the catamenia sometimes commence with a chill, and, in a large proportion of cases, with constitutional symptoms more or less severe. These considerations may lead the incredulous more readily to admit that the diseases of infancy are sometimes caused by dentition alone; and in many cases, if I may so say, favored by dentition, when not

entirely caused by it. I shall take occasion to state that it is not only in the first dentition, but also during the growth of the permanent teeth, that disease shows itself frequently; and that sometimes the whole constitution undergoes a change, more or less marked, at this period.

Until the age when the teeth show themselves, and in some cases for three or four months after this period has commenced, you see infants expanding in every part; those, at least, who are properly nourished. The bones, the muscles, the internal viscera, are all enlarging; and with this abundant health you see fat constantly accumulating under the integuments. Hence comes the rotundity, at every point, characteristic of infancy. The whole business of the little one seems to be to eat, laugh, and grow fat; leaving the cares and pains of life to its parents. But, if not with the first tooth, before many show themselves, the child begins to experience the hardships of life. If the general growth be not diminished, the fat is absorbed somewhat, and thus the aspect is altered. The digestive organs fail to perform their functions as perfectly as before, as is shown in various ways. Even without any error of diet, but particularly if there has been any error, the food is vomited, more or less digested, or sometimes unchanged. This may

occur a single time, and pass off without further trouble. Next, diarrhœa is a common occurrence. This too may be temporary, produced apparently by some article difficult of digestion, and ceasing when the cause is removed. But as the powers of the stomach are impaired by continued irritation, traceable to the teeth, the diarrhœa becomes more frequent, and perhaps constant. This is seen especially in August and September. The diarrhœa may be in all degrees, and may or may not be attended by pain. These are among the most common phenomena of teething, and consist, as you see, in a failure of the digestive organs and of the processes of nutrition. But the animal system likewise manifests the effects of the local irritation. The sleep is no longer so calm as it had been; and the temper is not so sweet. The child gets restless, and it becomes a labor to amuse him. Occasionally, even, convulsions are produced, accompanied by loss of consciousness apparently, and followed by stupor. The respiratory system and the heart partake of the general trouble, and so does the urinary apparatus. Occasionally, after two or three days of disturbance, without any obvious cause, a red sand is deposited from the urine; and, in a day or two, the child is well again. This may happen at any

period of life, but sometimes it appears in infants to arise only from the dentition.

I have spoken, mostly at least, of diseases which may be called functional. But inflammation arises in various parts in consequence of dentition. This shows itself in the gums and cheeks in the form of little ulcers, commonly called canker, but by my master, Dr. Holyoke, denominated *ulcuscula oris*. Of this I will give a more full account hereafter. Inflammation likewise occurs in the mucous membrane of the stomach and intestines, and is often recognized by nurses under the name of canker in the stomach or bowels. This inflammation is sometimes in patches of some extent; but more commonly it is limited to small spots, probably either the solitary or the agminated glands of the alimentary canal. There is not one uniform course in these inflammatory affections of the mucous membrane, and I have often thought that both in the alimentary canal and in the bronchi there might be affections corresponding to what we call eruptions on the skin, and these varying in kind and extent. While engaged on these letters I have learned that the talented Dr. Simpson, of Edinburgh, has entertained a similar opinion. I trust that he will prosecute this subject with the zeal, industry and sagacity, which are characteristic of him.

Anorexia, vomiting, purging, pain, with or without heat, and accelerated pulse, and all these in various degrees, attend the gastritis and enteritis above mentioned. The symptoms resulting from these affections are modified by errors of diet, or by any contravention of the laws of hygiene. The continuance of these affections causes debility, and often increases the irritability which belongs to the infantile age. The errors of diet are the most noted, as in truth they are the most frequent. This happens because the regulation of the food does not belong to nature, but depends on human discretion. Let me take this occasion to point out the use of a term which is not always understood. Eating, sleeping, etc., are called non-naturals. This certainly does not mean that they are unnatural. It means that Nature does not determine when we should eat, nor what, nor how much, nor when we should sleep, nor how long. I have made these remarks the more distinctly, because I wish to treat, at some length, of the diet of infancy, particularly during dentition. If I should not take this up by itself, I should be interrupted afterwards by the necessity of referring to it parenthetically, as it were.

It would seem, at first sight, useless to say much upon the diet of infancy, as that is the only period for which nature has made absolute provision. Parturi-

tion is followed by lactation. Nature furnishes the proper food in the mother's breast; and to that breast the mother delights to apply her child, and there the child's instinct enables it to obtain the needed supply. Yet we find the discretion of the child's guardian is often required, notwithstanding all this admirable provision. In civilized society mothers are not always vigorous, and cannot furnish all that is requisite for their offspring, nor hold out so long as is needed. Besides, nature does not decide up to what age a child must be kept at the mother's breast. It is then left to human discretion to say with what, besides the mother's milk, an infant shall be fed; with how much it shall be fed, and how often in the day; and, lastly, at what period it shall be weaned. On these points I shall proceed to make such remarks, as my experience seems to me to authorize. But do not imagine that I can give precise rules, for the same will not suffice for every case. Principles only can be furnished, and a sound discretion is requisite in applying them. Success, sufficient at least to satisfy the parties concerned, follows various modes of proceeding; yet all are not equally good.

When the mother has milk enough, it is safe to leave the child to that alone, in the early months of its life. Nevertheless, there is a convenience in feed-

ing it with something else, once a day. The mother may sometimes be sick, and sometimes unavoidably separated from the infant; then some food other than her milk must be given; but if the child is not accustomed to the spoon, or the bottle, great difficulty is apt to arise. It is, therefore, expedient to accustom it, from the beginning, to the use of the spoon. For the purpose now in view a small quantity will suffice; say from one to four table-spoonfuls. This little meal should be given early in the day; for if any uneasiness follows in the day-time, it is of much less importance than it would be in the night. Every precaution should be taken to keep the child quiet in the night, for its own sake, and for its mother's also. At first, cow's milk, diluted with three times its quantity of water, is, perhaps, the best article. The more fresh from the cow, the better the milk is for this purpose. If it has been standing two or three hours I would prefer to use the top of it, as I hold that the cream, or buttery part, is better than the coagulable or cheesy part of the milk. Other articles may be used with safety, and now and then seem even to be preferable; and, if the mother has not food enough for the child, larger and more frequent meals must be given. If goat's milk can be procured easily, it should be given in preference to cow's milk; and, for a child with a

very delicate or feeble stomach, it should be sought for, when a woman's milk cannot be had in sufficient quantity. Water-gruel, made from oatmeal or Indian meal, is often used for young children. This gruel depends for its quality on the mode in which it is prepared. If made in a summary way, with a short boiling, it is given with the coarser parts, the hull of the grain, in a pulverized state. This portion of the grain is indigestible, and from that very circumstance is a laxative. This sometimes makes it useful; that is, useful for a child habitually costive. But, like all laxative food, and this more than some other articles, it often causes flatulence and pain in the bowels. For young infants it is not proper, on this account, for in them these evils are most readily produced; but for those, more than three or four months old, this preparation may be tried, if called for by costiveness. In such cases the good or bad effects cannot be well decided under a trial of less than three or four days. When employed in this way, the article may be given once or more in a day, as may be found necessary, with reference to its effects on the bowels.

The other mode of preparing a gruel from meal is to boil it from two to four hours. Then the hull will be thoroughly separated from the nutritious, or farinaceous matter. In this state the gruel should be

allowed to stand until the coarse part has subsided. The supernatant liquor will be an emulsion-like article; in fact, a decoction of the farinaceous grain. This is to many persons more pleasant than the solution of arrow-root, and is quite as mild. Arrow-root is a very good article, and the advantage of it is that it may be prepared much more easily and more quickly. With either of these substances a little milk or cream may be mixed. When the child cannot easily be made to take such food as I have described, and it is important that it should be fed, because the mother cannot fully supply its wants, some sugar may be added. When, however, the child will take the food without the sugar, it should not be employed. True, it is often, and perhaps commonly, given with impunity; but, when the stomach gets feeble and delicate, the sweetened food is apt to become sour; then the child cannot be induced to take the food without the sugar, and, often, great inconvenience follows.

It is well, then, to feed the infant once a day, for the benefit of having it accustomed to take its food in this way; and it may be necessary to feed it much more when the mother has not a sufficient quantity of nourishment for it. In either case the food must be liquid and very simple in its character. Various other substances may be used. Sago is among those

which are easily procured. If the child must depend largely on *feeding*, as it is termed by the nurses, it is best to get it more and more accustomed to the cow's milk, until this becomes the larger part, and at last the whole of the article administered. The greatest inconvenience of this milk is that it is apt to occasion costiveness. If it does so, oatmeal may be used with it, in such a manner as to include its coarse parts. Adding water to milk is thought to weaken it, as water operates when added to wine or alcohol. I apprehend that milk is not in any sense weakened by a mixture of water. In the stomach the milk goes for the same thing, the quantity being the same, whether water is added or not. Yet there is usually an advantage in adding water for a child; the cow's milk is stronger, contains more nourishment than a woman's milk. If a child is eager for quantity, whether from thirst or what not, it would take more cow's milk at a time, than it could well bear. The evil is obviated by adding water, as thus the quantity is increased without giving too much nutritious matter at once.

I suggested a measure for the meal of a very young infant; but if it needs more food than the mother can furnish, the quantity at a meal must be increased, and the frequency of its meals also, in proportion to the

ease. Here watchfulness and discretion are requisite; for children, as well as adults, require very different quantities of food. A very young infant, taking little at a time, may require to have a meal once in two hours, whether from the breast or the bottle. But, as soon as possible, the interval between its meals should be increased to three hours; and I think it best to make the interval four hours at six months after birth. It is impossible, however, in most instances, to make mothers adhere to exact rules in this matter. When a child feeds much, the rules should be more rigidly enforced, than when it is nursing only, or principally.

It is important to direct that liquid food should be administered to infants just tepid, as near to the warmth of the mother's milk as may be. The use of hot liquids to new-born infants is especially injurious, often causing an aphthous mouth.

The time comes sooner or later for children to use solid food, as a part of their nourishment. Nature has not marked out any exact period for this, unless we consider the coming of the teeth as a sufficient guide. To a certain extent it is so. As long as a child is strong, and grows well, and shows the beautiful rotundity of infancy, one need not be anxious to make any change in his food. Yet, in a view of all

his coming wants, and of the possible failure of the supply from his mother, I think it well to begin gradually to give him bread, in very small quantities, in the fifth or six month. He should be watched, as in every change of diet, to see how it agrees with him. If he is always uneasy after it, or if his alvine discharges show any evil, the bread must be given up for a time. Commonly, good white bread is easily digested at the age mentioned, if the quantity is small. As the child grows older the quantity may be increased, until the bread constitutes an important article of its food. Other vegetable substances may be gradually introduced, such as rice and potatoes well cooked. But these are not necessary, where the bread is well borne. If the child be habitually costive, bread made from coarse wheat flour (wheat meal) may be given; or plain molasses gingerbread, or fruit. The hard fruits, apples especially, should be cooked,—roasted or baked. In summer the various berries are often useful.

There comes a time when a child should have some gratification to his carnivorous propensity. There is not any precise time at which this is requisite. Children, who are vigorous and grow well, can afford to defer it. The pale, thin and feeble child should have an early opportunity to show whether he loves flesh or

fish, and whether he can digest the same and thrive upon it. Any one who has teeth may begin with a chicken-bone, and, if he is pleased with the indulgence, may have a little tender meat, very finely minced, once in a few days. According to the effects, the indulgence may be gradually increased. It is well that a child should get the habit of taking a little meat daily, or frequently, before he has completed his first year.

I have said something of the frequency of meals; but there is one remark, connected with that matter, which I have reserved that I might make it emphatically. This is that, if possible, the infant should be made to pass six or eight hours in the night without food. In the mother's phrase, the child should not nurse in the night. This is mutually beneficial to mother and child. The proper rest, which the mother gets in this case, enables her to support the strain which is made upon her, and thus indirectly is beneficial to the child. This is a sufficient reason for the practice; for among us there are few mothers who do not shrink under the fatigue of nursing their children. But it is directly beneficial to the child, also, whose stomach is the better for this full rest once in twenty-four hours. Children thus treated are, usually, more happy in the day, than those who nurse much in the

night, and increase quite as fast in flesh and strength. That there are restless children, who cannot be trained up in this way, I admit; but they are comparatively very few. Nothing is lost by the trial; and, if this be made in good earnest, success often follows, even in cases which seem desperate. The best chance for success is found in beginning the practice from the very first night.

One other direction I should not omit. I have mentioned feeding during the period of nursing. I have had reference in all this to a child in health. When attacked by any acute disease, whether in the digestive organs or elsewhere, the child should be kept to the breast alone, if enough for its support can be found there. As the food should be diminished in quantity, in such a case, this is not very difficult. It is the less so, because the child commonly falls off in appetite in such a case. It is true that he may want to nurse because he is thirsty. The difficulty in this respect may be obviated by small draughts of water, either warm or cold, as may seem most grateful to him.

We come now to the great change in the infant's diet, *weaning;* weaning from the breast. This is a change, to which the young mother looks forward with great anxiety. It is right that she should do so. It

is worthy a careful consideration. At the risk of seeming to exalt this matter unduly, I will say that it is one of the great events in life. The child's subsequent health and vigor of constitution may depend upon the proper timing of this great change.

Undoubtedly it is best that the weaning should take place gradually — very gradually. But circumstances often make it necessary to be somewhat abrupt in making the change. However made, in a very few days after it has taken place the child loses the faculty of drawing the breast, and likewise the mother ceases to form milk. Thus the separation of child from mother, in this particular, once made, is made forever. Especial care, then, should be taken not to do it before the child is sufficiently advanced in age, and not at a time when it is peculiarly liable to disease.

The months of July, August, September and October, are those in which infants are most liable to sickness. It is in August and September that this is most especially true. The child, who has kept well till October, will commonly escape the autumnal diseases in that month; more especially after the first week in it. But these remarks apply to children who are teething. Those who have not begun to have teeth at the season described, will pass through it as

well as children who have got all their first, or milk teeth. These take their turn in the second summer of their lives, in which the process of dentition will be going on rapidly. All this is to be kept in view when fixing upon the period for weaning.

When I commenced practice, I was unable to get at any rules on this subject. The first question was, at what age children should be weaned. Neither the books to which I had access then or since, nor the medical fathers around me, gave any reliable information on the point. Circumstances, which I will not detail, caused it to arrest my attention. Then I was soon led to suspect that the age was not the only thing to be considered, but the season also. It would have required years to have obtained sufficient knowledge on this subject by my own observation. Then I began to draw from all the mothers I met with, not their opinions, but their experience. If I asked for opinions, the mothers and experienced nurses told me that I must look to the almanac, and be decided by the particular phase of the moon in deciding upon the time of weaning. My method of inquiry was this: I asked the matron how many children she had had; and, in regard to each one, in what month it was born; then at what age it was weaned; and then what was its health subsequently, and especially in the summer

months after its weaning. Comparing what I learned in this way with what passed under my own observation, I came to these conclusions, which I published more than forty years ago in the "New England Journal of Medicine and Surgery." I will give you an extract from a paper you will find in that Journal, entitled *Remarks on the Morbid Effects of Dentition.*

"Children are benefited by living principally on the breast for twelve months; their vigor is evidently impaired, in almost all cases, when they are nursed less than nine months. The safest period of the year for weaning is from the middle of October to the middle of March; provided they be not weaned under ten months after December, under eleven after January, nor under twelve after February. Children who are weaned at the age of twelve months in March are ordinarily safe; those who are weaned at this age in April are less so — one half of them, perhaps, suffering severely in the subsequent summer or autumn. In May the danger increases; and in the four subsequent months, if a child of any age be weaned, it will in most cases be very sick before the middle of the October ensuing. The disease does not immediately follow the weaning; though in many cases the diarrhœa of teething children ensues at once. But

the instances, in which children, who are weaned between May and October, escape severe cholera infantum, are extremely rare indeed. It must, however, be noted that in some years the seasons are much more favorable to the health of teething children than in others. It must also be noted that the limits, which have been mentioned, must be varied by particular circumstances. First, the seasons vary two or three weeks in different years. Second, something will depend on the constitution of the child. But we must beware not to place too much reliance on this circumstance, especially on the general appearance, on the fatness, etc. Those children who love meat and relishing food, who digest their food well, who are in perfectly regular habits as to their alvine evacuations, and who sleep well, are the best qualified to bear a deviation from the rules suggested above."

In giving the precise remarks contained in the foregoing extract, it was not meant that nature is limited by exact, straight lines. There is a difference in the constitutions of children, and the seasons are constantly varying from year to year. In remarks, such as are given above, we make approximations to the truth. They are founded on averages, and are not supported by each individual instance. However, I may say that the rules deduced from them are the most safe at

which I was able to arrive in 1812; and I may repeat the same as to the present year, 1855. I have been obliged to discuss the subject in every intervening year between these two dates; and many a mother has shown me a healthy child whom she has reared while disregarding the rules I have given. More than this, I have seen whole families of children reared in safety without any aid from a woman's milk. I believe, however, it is only two or three such families I have seen. But the question is not to be decided by a few selected instances. I know that many men are holding up their heads, and are sound in mind and limb, who have been repeatedly exposed in hot battles. Yet no one pretends that a man is not in great danger in such battles. Many are killed, and many maimed.

I should add that my experience has been limited mainly, though not entirely, to this city of Boston. I know very well that people living in the open country, not in crowded villages, if they avail themselves of their advantages, and keep their children much in the open air, find it comparatively easy to rear infants. Yet, in their proportion, the same troubles arise among them as in the cities. They have the best chances, yet they experience some evils which we escape in cities. I am quite convinced that our city children get vigor by passing the summer and autumnal

months in the country; but they more frequently get sick there; that is, they are oftener attacked with acute diseases, than when in the city. This remark has reference more to children after, than during the period of dentition. If asked for an explanation of this difference, I reply that I suspect it to be owing to more frequent exposure to evening air in the country. I am, however, more sure of the difference above stated, than of the cause.

It sometimes happens that, when a child is weaned from the breast, it immediately becomes very sick. It rejects whatever is taken into the stomach, manifests a deadly nausea, has incessant thirst, but no appetite for the food which is offered to it, is extremely prostrated, and sometimes within twenty-four hours, often within three or four days, gets the cadaverous aspect of a victim to the Asiatic cholera. In these cases, when so extreme, death often follows within a few days; but some recover after the worst symptoms. If, under these circumstances, you restore the child to the breast, it revives within twenty-four hours, and is soon well again. Sometimes such a child will not take the breast of a stranger, and its mother, or its foster-mother, cannot be had. In that case, if you can find a woman who can milk out the nutritious fluid, and you give that to the child warm from the breast

the whole purpose is answered. When a child is made sick, as I have described, if you give it just such food as it had taken and borne well on the preceding days or weeks, and in the same quantities, it cannot bear it. But, after restoring it to the use of the human milk, it soon bears the same food very well; and even a very little human milk is sufficient to keep the infant's stomach in such a state as to bear the other food. Under these circumstances, I have been in the habit of saying that the human milk kept the stomach in good humor.

LETTER IX.

ON CHOLERA INFANTUM, THE SECOND DENTITION, AND ULCUSCULA ORIS.

In the last letter I took notice of diarrhœa in teething children. In the simplest form, this comes from the use of an indigestible substance as it may at any age. But at the period of dentition, every disorder attracts more attention than at a later period of life, and very justly. By observing such an occurrence, in connection with the diet employed, we learn what articles to avoid in an individual case. But the same article, and in the same quantity, is not always followed by the same effects; and even without any error as to the quality of the food, the diarrhœa takes place. If there is no error as to quality or quantity, we must infer that the organs of digestion are wanting in power. This may happen temporarily from various disturbing causes. It is brought on gradually during dentition, from the wasting of strength incident to that period. Undue quantity may have this effect,

and is particularly apt so to do, when the digestive organs have become weakened. The remedy for the evils I have now stated consists chiefly in correcting the errors of diet, where we are able to understand them. When the natural efforts do not appear to effect a removal of the offending matters, some castor oil or other cathartic should be given. After this the chalk mixture should be used, until the discharges are less frequent and more natural; and if this remedy should not cause an amendment in twenty-four hours, some opiate may be added to it. The tincture of opium may be given in the dose of one or two drops to a teething child, and repeated to the extent of four times a day. In obstinate cases the quantity may be increased, but always with great watchfulness at this tender age.

Diarrhœa, arising from too great a quantity of food, may occur in a healthy infant at any time. I am tempted to leave the period of dentition for a moment, in order to point out the circumstances, under which a diarrhœa occurs, *before that period.* I refer to a case, which is not uncommon to infants in the first few months after birth, which is not, I think, well understood; and for which too severe a treatment by medicine is often tried, and tried fruitlessly. This infantile diarrhœa is not of serious importance. The

discnarges are frequent, loose, though not watery, and oftentimes green. They are sometimes attended with pain, but this is not serious. Meanwhile, no weakness nor emaciation takes place; on the contrary, the child grows apace. While the mother is speaking of his alarming disease, the infant by its smiles brings her smiles also, and she becomes puzzled as to the conclusion to be arrived at. It is on these circumstances — that the nutrition goes on well, and that the general health is maintained — that you may place your reliance. The cause is principally the undue quantity of milk which the child takes from its mother. I will not say this is the only cause; for I have sometimes suspected some fault in the milk. Ordinarily, however, if you can persuade the mother to nurse the child less frequently, the diarrhœa ceases, and the child continues to flourish. I would not have you understand that I learned all this at once. Usually, before a case of this sort came into my hands, the mother or the nurse had administered various cathartics, most especially magnesia and castor oil. These brought away the green matter, and then, perhaps, more healthy dejections followed. But the amendment would seldom continue more than one, or two days. In my early years I would try rhubarb, and afterwards chalk-mixture, but without any permanent

benefit. At length, I became satisfied that medicine was worse than the disease; and that, if not arrested, the diarrhœa was not seriously injurious. In such cases, I have always taken care to explain the case to the mother, that she might not think it equally safe to neglect a diarrhœa in a teething child.

To return from this digression. I will now state that, in the sickly months, children are often affected with a more grave disease than diarrhœa, and which is commonly known as the *Cholera Infantum.* Under this name, however, you do not always find what appears to be one simple disease. The term cholera, you know, was originally applied to diseases in which bile made its appearance; and this bile was supposed to be the proximate cause. To this day, persons out of the profession, and very many in it, think of bile as a cause of disease, and do not look behind it for any cause more within their control. You know that, if you get a mote in the eye, the lachrymal gland pours out tears, which are well calculated to wash it away. If any inflammation occurs on the conjunctiva, the same flow of tears takes place. So any acrid substance in the mouth, or an inflammation in its mucous membrane, may cause a flow of liquid from the salivary glands. Precisely so, as I apprehend, acrid substances in the stomach, or duo-

denum, or inflammation of the mucous membrane of these organs, will cause a great flow of bile into them. An occasional vomiting of bile, therefore, or a bilious diarrhœa, may arise from a transient cause, of which you have instances in the effects of antimonial and other medicines. But, when this vomiting or purging of bile continues after all irritating causes are removed, you may infer that it is not an acrid substance, but an inflammation of the parts above mentioned, which gives occasion to the flow. It is proper to add that various circumstances are to be taken into consideration before this conclusion is admitted as certain. Thus, for instance, an irritation in some distant organs, as in the kidneys, or the uterus, may cause a vomiting of bile. But I need not go further upon this point.

I will now state that when gastritis, or enteritis occurs, you will find produced the phenomena of cholera infantum. It is more especially when the inflammation is limited, as above stated, to the stomach and duodenum, that this takes place. But, in the progress of the disease, inflammation sometimes occurs in the other intestines, and, of course, the symptoms are modified. Vomiting and purging are the leading symptoms of cholera; but, alone, they do not constitute the formidable disease, and not even if anorexia be added to them. The great distinction arises from

the constitutional symptoms, added to those which are local; and among these constitutional symptoms, the prostration of strength and shrinking of the whole body are the most important. It is not, then, the color of the discharges, nor the frequency of them, which makes the distinction between cholera infantum and diarrhœa. The difference, pathologically, consists, as I believe, in the existence of an inflammation in the mucous membrane of the stomach and duodenum in the cholera; while, in the diarrhœa, it is probably lower down in the canal, if anywhere, that inflammation exists. It is not requisite that the inflammation be very severe to produce the effects pointed out. The difference as to symptoms is that in the cholera there is an altered countenance, a shrinking of the features, prostration of strength and spirits, and at times distress, or stupor, or these two alternating. Pain accompanies diarrhœa as well as cholera; but in the latter it is often very extreme, and the sufferer rejects all aid and comfort, seeming to believe that no one can help him. This, however, is occasional, and does not occur in every case. Common febrile symptoms also are frequent attendants on this disease.

As the actual disease varies in its extent and severity, and as the constitution varies in its readiness to sympathize with the local affection, so must the

symptoms vary. In some instances, mostly in July or August, the disease is quite acute. The child is taken down at once, and overpowered, and the disease may prove fatal in a few days; but this is rare. More commonly, the patient rallies from an acute attack, or the disease commences more gently, and in either case it continues, varying in severity. Thus, it may continue, fresh attacks occurring from time to time, through August, September, and later. It may prove fatal at different periods, or cease altogether, but leaving the patient greatly reduced. When continuing for a length of time, the patient loses, after each new attack, both flesh and strength.

This disease is seldom fatal to a nursing child. When not nursing, from the want of the appropriate food, the child does not get up well from the first or subsequent attacks, and the disease becomes complicated with dyspepsia. Then there is a great need of food, and often a great craving for it, and yet, perhaps, nothing but the human milk can be digested. You will see such a child reduced to a skeleton, tended on a pillow, the skin so loose that it may be wrapped over the subjacent parts, life being doubtful from day to day, supported only by wine, or even by ardent spirits, and yet ultimately recover.

While other symptoms vary, the diarrhœa never, or

very rarely, ceases. This is kept up from the imperfect digestion (and there the stomach is in fault), and from the irritable state of the bowels, dependent sometimes on inflammation, or slight ulceration. Consider, then, that the dejections vary from the kind of food received, the more or less perfect digestion of this food, the mixture of the secretions, which are poured into the bowels, healthy or morbid, and, lastly, from the greater or less embarrassment attending the passage of these materials through the canal. And remember that this difficulty, as to the passage of the materials, operates more especially in holding back the proper fæces derived from the food; for the secretions, not being solid, are more easily transmitted. Now, if you would understand such a case, you must, day by day, ascertain the following facts: first, the articles taken, how much of each, and at what periods, including the liquids; second, how far any discomfort has followed a meal, whether this be pain or uneasiness only; also, whether there has been heat, heaviness, or restlessness; and, third, the dejections, their number and character. These dejections must be carefully analyzed; I do not mean by chemical means, but by an estimate of the proximate elements which compose them. Each discharge should be kept by itself, and they should be placed in the order in which they take place, and you

should take note of the periods at which they occurred. You should then observe, in respect to each, whether it contains any fæces, and how much; and whether the material is in its crude state, or partially digested; and, then, how much there is of mucus, watery fluid and bile; to which I may add blood, as this is sometimes added to the morbid materials. Now, that discharge is the best in which there are the most fæces; more especially if these are truly fæces, and not an undigested matter. This is best, at least for this reason, that it shows the organs to be in a condition so healthy and so vigorous as to transmit the fæces; for one of the worst things in this, as in other diseases of the bowels, is, that the lame intestines cannot perform their duty. Let me impress this by saying that you should always insist upon learning from the nurse, when you do not see the discharges, what the quantity is; for, even a good nurse is apt to think it is enough if she tells you the color, adding, perhaps, that the stool was loose, or was not so. Next, the mucus is more or less, first, according to the inflammation of any patches in the intestines, which at a certain period become covered with extra mucus; and, second, it is increased by the irritating materials which are passed over these surfaces. Indeed, very irritating matters will provoke the formation of mucus in parts not

inflamed. A watery fluid, diluting the alvine discharges, may be poured out, like mucus from the surface of the mucous membrane, consequent upon either irritation or inflammation. Generally, this fluid denotes the presence of peculiar irritants, such as neutral salts; and this may be seen in common diarrhœa; or it is poured out from surfaces at an early stage of inflammation, just as you often see in the nasal catarrh, in its early stages, before a more viscid secretion takes place. Bile is another of the fluids found in the discharges; and this should be found in every alvine discharge, and intimately mixed with its other elements. This should be found, I say, in a state of health. An undue proportion of bile is found in various cases, but in this disease, mostly from irritation of the mucous membrane of the stomach, or of the duodenum. This matter has been before adverted to. But there is a stage of inflammation in which the parts are left dry for a while, or comparatively so, the neighboring secretions not having come to their relief. In this way, I believe, the effusion of bile into the canal is sometimes suspended, and is, therefore, wanting in the dejections. There is still another cause for the absence of bile, the same as for the absence of fæcal matter; that a portion of the intestine cannot transmit the materials brought to it, so that the dis-

charges consist of those matters only which come from the parts below the obstruction. This is what is constantly happening in dysentery; and which happens likewise in cholera infantum, where a portion of the large intestine has become the seat of disease. Blood, also, is sometimes found in these dejections, and is to be regarded. A little blood is not, however, a serious matter; nor even is an ounce or two, for a single time, a cause for alarm. It is bad when most, or all, the stools are colored by blood, and the remaining part consists only of mucus, or of slimy matter, derived from a diseased surface, while the fæces are kept back. In other words, it is bad when the cholera passes into dysentery. I will add that pus, which you often see in dysentery, may also occur in the dejections of dysenteric cholera.

It has long been remarked that those alvine discharges are bad, which are pure or *sincere*, as they have been called. By pure, in this case, it is meant that the discharge consists of one material alone; such as bile, or mucus, or watery fluid, or blood. A discharge, which consists of two distinct portions, one part of bile or mucus alone, and another part of imperfect fæces, is worse than when the constituents are duly mixed together. I mentioned above that it was proper to regard the order of the discharges. Under

this head I will remark, it is favorable if, after a quiet night, the patient has one or two copious discharges in the morning, although these be followed by frequent small dejections of a bad character. Observe that in this case the bowels have performed their office; they have carried through the fæcal mass, with more or less of morbid matter. By this they are relieved, at the same time that they have shown vigor. If, after this effort, they be irritated, it is of much less importance, than when they labor and cannot carry forward their contents. I do not wish to speak now of the treatment; but, to avoid describing this state of things again, I will say that this is the best moment, after the large evacuations, for the use of opium; then the opium is best borne, and, while it gives rest to the organs, it does not aggravate the evil by retaining the fæces. Let me add here, that it is favorable when the discharges are less frequent, or cease entirely in the night-time, corresponding to the course of things in health.

It is a bad case when the discharges run away involuntarily, the child looking as if unaware of the occurrence, and with a sunken countenance. If, with this, the appetite is quite gone; if there is disgust for food, and even for drink; if the skin be dry, and the tongue also, the abdomen distended by flatus, the

pulse and the respiration showing great weakness, the patient rousing only occasionally with a shriek, or perhaps rolling the head from one side to the other very frequently, or tossing it rather than rolling it; under these distressing circumstances you can scarcely hope for a recovery. But do not despair entirely. In this disease, though these and other bad symptoms have accumulated, recovery may take place. With a mother who cannot give up while life continues, or a faithful nurse, to watch the patient, you may see it rise again from the very brink of the grave.

I hope I have said enough to aid you in understanding this disease. I think that you must encounter it at times, though I believe that it is vastly less common now than formerly, when I had most to do with young children. In this city, the errors which lead to cholera infantum are now much better understood, and are avoided. There is more care as to diet, and very many children are carried to the country in the dog-days. I will not enlarge on various points, which are less essential, but will proceed to speak briefly of the treatment.

In the acute attacks of cholera infantum, the first object is the dislodgment of offending materials from the alimentary canal. In most cases the spontaneous efforts suffice to clear the stomach. But, occasionally,

it is evident that these efforts fail to remove a load, which the patient has, imprudently, been permitted to take into the stomach. Then small doses of ipecacuanha may be given with benefit, till the burden is thrown off. Two to four grains for a dose will usually suffice. Much more frequently the efforts of the bowels are not successful in carrying off their contents, and the stomach is, at the same time, so irritable as not easily to retain medicine. Then calomel is the great remedy. Whatever objections theoretical men may make to the use of so potent a drug for a tender infant, few practical men, after having tried it, are willing to treat this disease without this article. It is not offensive to the taste; it can be retained when scarce any other medicine can be; and, if vomiting follows a dose of it, the stomach becomes less irritable, so that a way is open for other medicines, or for nourishment. By its operation the bowels are disburdened of their load with benefit. But it is a medicine which is slow in its operation, and castor oil may be used after it with advantage; or a few grains of jalap may be given, if the oil is offensive to the stomach. When the bowels are unburdened, if the diarrhœa does not subside, it may be arrested by opiates. From three to five drops of the tincture of opium may be given, and the dose may be repeated in eight or twelve

hours. Larger doses are often requisite; but this article should be used very watchfully in a new subject, until its ability to bear it is ascertained. There are instances — very rare ones — in which young children are overcome by a very small quantity of opium. I believe, upon the testimony of others, that a child, a year old, has been killed by eight drops of the tincture of opium. I have known an instance of one, two years old, killed by a dose of this tincture, given by a nurse, under the belief that it was *elixir asthmatic*, in the dose of thirteen drops. Such instances should teach caution; but in many cases much larger doses are required; and such may be given when cautious trials have shown that smaller ones are unavailing.

In the acute and violent attacks, after the evacuations, and the administration of opiates sufficient to arrest the discharges, our reliance must be on caution in the use of food. The human milk is the best; but even that must be given in very small quantities, till the stomach gets well quieted. From time to time opiates may be needed on account of the diarrhœa. If possible, however, these must be reserved for the night, and in the day-time the bowels should be allowed a chance to clear themselves. Among children, as among adults, we find some on whom opiates do not act kindly; not producing quiet rest, and leaving

nausea and prostration, as consequences, after ten or twelve hours. In such cases we are sometimes obliged to give up this excellent medicine, for which we have not any good substitute.

In all cases, as soon as possible, we must omit medicines, and endeavor, by great care in diet and regimen, to prevent a recurrence of the disease. If the gums are irritated by an advancing tooth, they must be carefully divided down to the tooth. The good effect of this practice is doubted by those only who do not try it. The requisite diet has been sufficiently discussed already. When the vigor of the patient will at all permit, he should be carried freely into the open air. If it is in a city, advise that he shall be taken into the country. So great is the effect of change of place, that even a child well situated in the country, when in a very bad way, should be removed, if it be only a mile, to a new place, and one of a different character. Experience justifies us in relying on so small a change for some benefit. Tonics may be employed with benefit in the dyspeptic state, to which teething children are reduced by diarrhœa, or cholera infantum. Wine, and even spirit, may be given to a large amount to those who are very much reduced, and who cannot bear nourishment enough to sustain life. I am hardly willing to state what quan-

tities I have sometimes given, from the fear that the same might be done when unnecessary. In every instance we must decide, after careful watching of the patient before us, to what extent the stimulants, or, I would rather say, cordials, should be carried. But the bad cases are almost entirely among children who are weaned. In such, when possible, a woman should be found who can press out the milk from her breast, and the child should be supplied with this best of food and of cordials. I feel vastly more sure that I have saved life in many instances by resorting to this expedient, than that I have ever saved it by the use of medicine.

The occurrence of diseases during the first period of dentition is familiarly known, and attributed to the irritation of the coming teeth. It is not so well known that the appearance of the permanent teeth, also, is attended by diseases of various kinds. I feel satisfied, however, that this is the case. I cannot quote any authority in support of this opinion; but for many years I have pointed it out to my brethren, and some of these have confirmed my observations by their own.

During the second dentition, then, a liability to disease may be remarked as well as during the first, though not so great. Besides this general liability, there are certain morbid affections which are in a good

measure peculiar to the period. But you will not understand me that these are showing themselves during the whole period of the second dentition; far from it. There are instances where disease is produced during the first years of this period, and some also in the very latest period of it. I have seen persons between twenty and thirty much affected by a *wisdom tooth* not yet protruded, and distinctly relieved by cutting the gum. But I think the most common period of suffering from the second dentition is from the tenth to the thirteenth year. The most characteristic affections are wasting of flesh and nervous diseases. The boy loses his comeliness, and his complexion is less clear, while emaciation takes place in every part, though mostly, perhaps, in the face. The nervous symptoms are various; but the most common are a change in the temper, and a loss of spirits. With these there is some loss of strength. The patient is unwilling to engage in play, and soon becomes tired when he does do it. Among the distinct symptoms which are not uncommon, I may mention pain in the head and in the eyes. The headache is not commonly severe, but it is such as inclines the patient to keep still. The eyes are not only painful, but are often affected with the morbid sensibility, to which those organs are subject. I have known boys,

truly anxious to pursue their studies, obliged to give them up on this account; and these, not having the disposition to play, will of choice pass the day with their mothers, and increase their troubles by the want of air and exercise. Nervous affections of a more severe character are sometimes manifested. Chorea is noticed very often at this period of life; and, in some instances, I have known this disease to appear in the spring season for two or three years in succession. Some children at this same period become very notional and whimsical, so that they may be regarded as insane. In one instance, a boy about twelve years of age, would loiter in the house, keeping his slippers on, careless in his attire, and almost refusing to go abroad, even into a garden. All this was entirely different from his usual course of life, which was very orderly. After some months, he was placed under the care of a medical gentleman, who received nervous and insane patients into his house, and under his treatment was very shortly restored to a sound state.

The remedies, which I have found most useful, are as follows. First, a relief from study, or from regular tasks; yet using books so far as they afford agreeable occupation or amusement. Second, exercise in the open air, preferring the mode most agreeable to the patient; and, in more grave cases, the removal from

town to country. The lad above-mentioned, in whom the disease had amounted almost to insanity, was very skilfully managed in this way. The physician first took him to ride with him as an indulgence; and it was felt to be so by the boy. Then he let him drive the horse occasionally, and, finding he was interested in the horse, he allowed him to harness him. In short, by means of the horse, he restored him to habits of activity, while his mind and feelings were engaged; when soon, instead of moping, he became cheerful, and his flesh was restored. In all cases, the stomach and bowels are to be attended to, but the trouble with them is nothing compared with that during the first dentition. Sometimes iron may be employed with advantage, but, generally, medicines are not required. Those, who get much enfeebled during summer, may employ sea-bathing with benefit.

When I tell you that the affections appertaining to this period of childhood and youth have not been understood to be connected with dentition, you may ask what has been thought of them? My reply is, that in a large proportion of cases, where troublesome symptoms have occurred, the patients have been thought to have worms in the intestines. Since I have become acquainted with the affections above-described, I have almost ceased to use pink-root, and

various other remedies regarded as vermifuges. I will here remark, that, though worms in the intestines do sometimes give occasion to grave symptoms, yet instances of this sort are extremely rare. In some of the worst cases produced by the second dentition, disease of the brain has been suspected, and, I fear, suffering has been sometimes inflicted upon patients by this error in diagnosis. A low diet prescribed under this misapprehension must be very injurious.

I know very well that many sagacious practitioners are satisfied as to frequent and serious evils from worms in the intestines. I am constrained to differ from them. It is very common to find worms discharged by children and adults, who have previously been in good health. This will happen sometimes without obvious cause; but more commonly in consequence of any fever, under which the patient ceases to take the usual nourishment. I remember a case of pneumonia, as distinctly marked as possible, in which lumbrici were discharged. The attendant physician called the disease a worm fever. I have seen a man confined in consequence of a fracture of the tibia, in whom the same evidence of a worm fever showed itself. A medical gentleman, forty years ago, invited me to attend an autopsy of a boy who had died of worm fever. I accepted the invitation, and on laying open

the abdomen found the cavity filled with pus, and all the other marks of peritonitis. I would not be understood to say that we do not ever see inconveniences from worms. The ascarides often occasion much uneasiness, accompanied by itching about the anus. Other worms also give trouble at times, but not often any great trouble. Excuse this digression.

While treating of cholera infantum I made mention of the disease known under the popular name of *canker* in the mouth. This is a different affection from *aphthæ* of the mouth, and I know of no other distinct name, which has been given to it, except that of *ulcuscula oris*. This name I got from my master, Dr. Holyoke.

Ulcuscula oris are little ulcers within the mouth, on the cheeks, gums, and tongue; and more rarely on the fauces. They may occur at any period of life, and some persons suffer from them throughout their lives, occasionally. This is among the hereditary diseases. At least, I know one family, in which it showed itself in three successive generations. But this, perhaps, is not just the same disease as that which occurs in childhood. I cannot point out the difference as to symptoms, but I know that it does not yield, in these cases, to the same treatment which is employed successfully in children. Also, in children,

the disease often assumes a violent and acute form, and it is even sometimes epidemic under this form. The local affection, as you commonly see it, consists in small, superficial, circular ulcerations. On looking into the mouth, you see a circular white spot, surrounded by a red line. If, however, you catch the disease at its commencement, you will find that it is a vesicle, but the skin or pellicle is extremely thin, and is very soon broken, leaving the circular ulcer. In severe cases, you find the gums generally, and sometimes portions of the cheeks swollen, and very red. The tenderness of the ulcuscula is great, especially when the surrounding parts are inflamed; but the degree of tenderness varies more than the appearance to the eye; so that some patients will take food into the mouth, and manage it very well, while others, the disease not looking worse, will admit only the most bland liquids. In some instances I have seen children refuse all nourishment except once, or at most twice, in the twenty-four hours; when, driven by desperation, they would seize and swallow down a cup of milk. I had once a memorable case, in which the disease was protracted for some days in its severe form, and where various articles were offered in hopes to save the child from starvation. Among these articles was some broiled meat. The child seized this, tore it to

pieces with his little hands, like a wild beast. and then pressed it to his nose, snuffing at it with an obvious gratification, and seeming almost to derive nourishment from the scent. This was done for three or four days, more than once a day, until he was so far restored as to be able to take food into his mouth.

When the ulcuscula occur in an acute form they are attended by febrile symptoms, which are especially violent in the night. In one season both this disease and measles were epidemic, and many children had both of them in the course of the spring. Among these there were several instances, in which the fever attending the sore mouth was more severe, than that of the measles in the same subject. This sore mouth terminates favorably when not complicated with cholera infantum. But its violence may be abated, and I believe its duration may be shortened, by treatment, if this be employed early. Calomel should be given in doses of three to five grains with the same quantity of jalap, and the dose may be repeated after two days. Meanwhile, an astringent gargle, or mouth-wash should be used every two hours during the day-time. I prefer a solution of sulphate of zinc to any other article for this purpose. I direct ten or twelve grains of the sulphate to be dissolved in four ounces of rose-water. There is often a difficulty

in using any mouth-wash for children. I have been in the habit of doing it in this manner: take a teaspoon and fill it nearly full; then watch a chance for introducing this into the mouth, and throw it on one side. If the liquid is placed on the tongue, the child can easily spit it out, or swallow it, not allowing the liquid to extend over the mouth. If it be thrown on one side of the mouth, or under the tongue when this is lifted up, the child will make an effort to bring it on the tongue in order to spit it out. In doing this he will spread it over the mouth, so that it will reach all the parts affected.

LETTER X.

ON ABSCESS IN THE TONSILS, ELONGATED UVULA, BRONCHITIS AND PNEUMONITIS, RHEUMATISM AND GOUT.

Before passing to the organs of respiration, there are two diseases about the fauces, on each of which I have a word to say. The first is *Abscess in the Tonsils.* This disease you will meet with not unfrequently; and you will find that most persons, who have it once, will have it again and again. At first the patient feels a soreness about the throat, attended with a difficulty in deglutition. So far, it may be some other affection of the fauces; but some of those, who are subject to it, think they can distinguish it by a peculiar sensation, a stinging, or something else, from any other disease. If examined at this period, there will be found an enlargement of one of the tonsils, such as to press forward the anterior pillar of the palate. In two or three days this tonsil is found to be tense and enlarged, with a shining surface. The

pain increases from day to day, as does the difficulty of swallowing, so that at last the patient will avoid swallowing as much as possible. Accompanying these symptoms is a peculiar difficulty of speech. The voice sounds as if the patient had a mouthful of pudding just stopped in the fauces. At this time speaking is painful, as well as swallowing. This disease is often distressing, causing the patient to sit up a great part of the time, and preventing quiet sleep. The respiration is impeded, but not seriously; though apprehensions are sometimes excited on this score. At length the abscess opens, sometimes discharging freely, and giving sensible relief at once; but not uncommonly the orifice is small, and the relief comes on gradually. An abscess in the tonsils is sometimes spoken of as dangerous, and patients are, not unnaturally, filled with fears; but the danger is very slight, if there be any. I have seen it very many times, and have never seen a fatal case. When you see the disease at an early period, you may very naturally think of the remedies proper for inducing resolution, such as leeches and vesication. Now I wish to express to you my conviction that in these cases suppuration cannot be prevented by any treatment. I have noticed the disease only to state this as the result of my experience. If you believe me, it may save trouble to

your patients. Leeches and blisters only add to the affliction, and so do gargles. These cannot be properly used. The parts are too lame to permit it. The only relief, which art can give, is by opening the abscess; and, if this be attempted too early, it is unavailing. Where the abscess points, as it sometimes does, posteriorly, it is not easy to reach the pus with the lancet.

I will mention next the *elongation of the uvula*, a morbid change which may be seen very frequently; oftener in the old than the young. In some instances the uvula is very much thickened and enlarged, as well as elongated; sometimes it is long and pointed; but this is rare. When most diseased, it will not be retracted upon stretching the fauces open, as it is in a sound state. The part itself does not appear to suffer; it is not painful, nor sore. It is, however, very annoying to the surrounding parts; especially to the root of the tongue, and to the epiglottis. In some few instances it causes nausea. But the common evil from it is a cough, or a hawking, or both. The cough is ineffectual, and is therefore repeated very often; hence the surrounding parts become irritated more or less extensively, especially the larynx. In some persons the muscles of the thorax are fatigued, and are made lame and sore by the coughing. In a few

instances you will find the voice affected; there is hoarseness, and some difficulty in speaking. The trouble from this affection is much aggravated when bronchitis occurs; for then the cough is much more frequent and distressing than would arise from the bronchitis alone. This disease often continues for years without being suspected, and is always to be looked for in old men, who have winter coughs. The plain remedy is the amputation of the uvula. This gives relief; sometimes strongly marked, at once; but the surrounding parts, which have been long subject to irritation from the vain coughing, may require time for their recovery; so that, in most cases, the full relief is not immediate. If bronchitis exists at the time, the relief must necessarily be partial, though ultimately the bronchitis is terminated in a shorter time than it would otherwise be.

Though I am not a surgeon, I have a word to say upon this operation. The uvula should not be cut off at its root. It is sufficient to remove from one half to two thirds of it, according to its length. In all cases, the wounded parts are sore for a few days, so as to be irritated by a hot liquid, by an acid, or by pepper. But when the uvula is cut off at its root, the subsequent evil is much greater; for, in this case, whenever the soft palate is brought into play, the wound is

stretched, the raw surface is irritated, and thus the healing is protracted. But the wound of the uvula, when cut midway, does not suffer in this manner, and, like other wounds within or about the mouth, will commonly heal in a short time.

I now proceed to *diseases in the organs of respiration;* but I shall not treat of all of them; and not fully nor exactly of any; for, as in the preceding letters, my only object in describing diseases is to make it sure that you shall know what I am dealing with.

First, of *catarrh*, or *bronchitis;* terms, which, at the present day, are nearly synonymous. The patient with catarrh tells you he has a cold, and he thinks that is all you need to know. In calling the disease a cold, he refers to its remote cause, or what he considers so. But he would also tell you he had taken cold in various other cases; if, for instance, he is affected with ophthalmia, or rheumatism; and, perhaps, if he has a diarrhœa. Even on the first days of typhoid fever the patient will talk of his cold. Likewise, patients affected with chronic diseases very frequently speak of an aggravation of their symptoms, in consequence of a cold. When, therefore, a patient says he has taken a cold, it is necessary to ascertain the symptoms and the order of their occurrence. In going through this scrutiny, I think it is

of no small use to make the patient perceive just how the evil from cold, as a cause, has been brought about. From not attending to this point, patients and their friends are led to believe that an exposure to cold water and to cold air is always attended with some danger, and then they are led into habits of precaution, under which the liability to disease is greatly increased. One who has been in active exercise, and especially if much fatigued, and then stands still in a cold atmosphere, or goes into a cold cellar, or lies down on the damp grass, or sits in a draught of wind, or leaves off an accustomed garment, is very apt to have a catarrh, or some other disease, which may be fairly attributed to "taking cold." This comes from the sudden reduction of temperature on the surface. I I shall not stop to inquire how this affection of the surface operates in bringing on a catarrh, or a rheumatism. And I need not say that there are other ways, besides those enumerated, in which you may take cold. A mere exposure to a cold atmosphere does not necessarily make one take cold, even when exposed after being heated. The evil effects depend very much on the ordinary habits of the subject as to exposure. If you pass your time mostly in the house, and never move abroad without a great abundance of warm clothing, and keep yourself over-heated much

of the time, the slightest exposure to a change of temperature will give you a cold. If such be your case, you should take measures to harden yourself, as it is termed. To this end you may be directed to use a cold bath every day. This is good advice. But, if you do no more, the gain will be very moderate. This remedy, operating only a few minutes in a day, will have very little influence unless your habits be changed in other respects. The most important change, in such a case, is to go abroad daily and get exercise in the open air, whatever the weather may be. This cannot be done fully at once; the change must be gradual. At the same time, the habit of heavy clothing must be gradually abandoned. As near as may be, the clothing should be such as you can move under with ease, and without inducing great heat. This is the advice to be given to one who is apt to suffer from exposure to cold weather. There are some persons who seem incapable of being hardened to the weather in any way; but they are very rare exceptions.

A *catarrh* consists in an inflammation of the mucous membrane of the nose, fauces, windpipe, and its subdivisions, the bronchi. It may commence in any one part, and be limited to that; but it very commonly spreads from the part first affected. Usually, in spreading, it leaves this part in a state of recovery

while it extends to the adjoining parts, in the same manner as erysipelas spreads on the skin. Most commonly the disease begins in the nose, and travels down to the larynx, where it causes a hoarseness, and thence it goes to the bronchi on one side, or occasionally to both. In the lungs its extent may be greater or less. When it reaches the extreme air-vessels, especially if it affects many of them at the same time, it becomes a somewhat grave disease. A catarrh is sometimes very slight and limited; at others severe and extensive. The constitutional affection bears a relation to its severity and to its extent. When the disease is in the bronchi, it is at the present day called *bronchitis*, though this word is used loosely, and is employed by many when the disease is in the larynx.

A severe bronchitis often receives the name of influenza in our community. But influenza, though it commonly includes bronchitis, is a different disease. It is ushered in by constitutional symptoms, chills, pains in the head, back and limbs, as happens in more grave febrile diseases. It is also an epidemic, and an extensive epidemic, spreading over a continent in the course of a few months, or even of a few weeks. It is doubtful if this disease is ever sporadic. When the great and learned have a severe bronchitis, there often is, among all concerned, a disposition to magnify the

disease, and then it is called an influenza. Now, I could tell the reverend or the honorable gentleman, that when he has the influenza, the chance is that the domestics in his kitchen will have it too. I should not make this remark if I did not believe that the patient, who has his malady thus exalted by a great name, is often led into some unnecessary evils by the misnomer.

When a catarrh, or bronchitis is not severe, a person, whose usual health is good, may pursue his common course of life. But if severe, or if the patient has not a very sound constitution, some precautions should be taken. For two or three days, at the commencement, the food should be diminished, and that which is most stimulant should be avoided. If there be chilliness, well marked, a slender person should keep the house for one or two days. But this should not be done for a slight cause, as if it was the safer course at any rate. There is danger in keeping close upon every slight occasion, for thereby the system is made more susceptible; and then slight exposure will aggravate the disease, or induce disease anew.

Medicinal remedies are not often advisable, even in bronchitis, except when a cough becomes troublesome, preventing sleep, or causing soreness or lameness in the breast. Then opium, combined with ipecac., or

some preparation of antimony, is useful. This should be taken at night; and as the opium will commonly occasion costiveness, it is well to counteract this by adding some cathartic in a small dose. For this purpose two or three grains of *compound extract of colocynth*, or as much *aloes*, will often suffice. A sixth of a grain of tartarized antimony, and double that quantity of opium, is usually sufficient, as the night dose for an adult. Two or three grains of squills may be advantageously added to this dose, when the expectoration is scanty and difficult. In bad cases it is useful to give one to three grains of calomel, instead of the colocynth, for one or two nights.

For an adult, previously healthy, who is affected with bronchitis and is anxious to throw off the disease at once, even with some inconvenience, a more active practice may be used. If not always successful, it will commonly be found so, when employed in the first week of a bronchitis. The following is the dose which I have employed for this purpose; in some cases giving half of it only. It should be taken at bed-time.

R. Antimon. tartar. . . . . gr. j.
Pulv. opii. . . . . gr. j.
Hydr. submur. . . . . gr. x.
Mucilag. gum acac. qs. m. f. pil. No. iij.

Such a dose should never be given to a scrofulous or tubercular subject, nor to one approaching old age. nor to any one in tender health. Usually much milder articles serve to mitigate the symptoms of bronchitis. When there are no strong inflammatory symptoms, the tincture of tolu is very useful; that may be sweetened by the syrups of tolu and of squills. Half a drachm of each may be given three or four times a day, and double the dose at bed-time. A little opiate should be added when the cough is very urgent. In chronic bronchitis the same is valuable among the mild remedies. For young children, under a troublesome bronchitis, I employ the following: Take of either almond or olive oil, of syrup of squills, of any agreeable syrup, and of mucilage of gum acacia, equal parts, and mix them. Of this mixture a teaspoonful may be given to a child at two years of age; a little less if younger, and increased if older, so as to double the dose to one in the sixth year. This may be given from three to six times in the twenty-four hours. Sometimes a little opiate must be added at night to appease an urgent cough. The diet at first should be simple in kind and moderate in quantity; but, when the first violence of the disease has subsided, the usual diet may be allowed.

I have very little to say on *pneumonitis*. I be-

lieve that this disease is very rarely fatal to healthy adults, except during an epidemic of a peculiarly bad character, or unless it affects both lungs. If the patient have tubercles in the lungs, or a cancer, or other malignant affection, or if worn down by any other disease, or by intemperance, the danger is very considerable. The same remarks may be made in regard to pleuritis and pericarditis, when not complicated.

In young children the disease is attended with more danger, than in adults. The same is true, in some measure, as to persons past seventy years of age. Yet in these, and even in those past eighty, if the constitution be not very slender, and if the habits of life have been good, almost all recover, provided one lung only be affected.

The common practice has been to take blood from the arm in pneumonitis. I am satisfied that this is wise, if the patient is vigorous and not very old, provided it be done on the first or second day of the disease. Even on the third day, in a strong man, it is a good practice; but later than this I believe it is useless at least, and that it is sometimes injurious.

M. Louis, of Paris, has shown that the disease is not arrested, nor materially shortened, by bleeding, as he has seen it practised; but I believe that all the cases he has brought forward had arrived at, or passed

the third day of the disease before the bleeding had taken place. An examination of the cases at the Massachusetts General Hospital confirmed the opinion advanced by M. Louis.

I have said that this disease is attended with more danger in young children than in adults. In such young subjects, when vigorous, I have thought bleeding, within the first forty-eight hours, decidedly beneficial; lightening the disease, if not shortening it. In young children it is not easy to find any good vein for the operation, except the external jugular. It is not difficult to open this vein. I have done it many times for this and other diseases. I never lamented that I had done it; I have lamented very much in some instances that I had not done it.

Whether bleeding has, or has not been employed, I believe that the free use of antimonials in the first week of pneumonia is beneficial. They diminish the violence of the disease at least. But there are many delicate subjects who do not bear this article well. In regard to mercurials I have not so favorable an opinion. I have seen them tried fully. They were very universally employed in this vicinity when I was a pupil and many years afterwards. They were not at all used in England when I was there, in 1799 and 1800. They were first introduced in inflammatory complaints

at a later period, and have been in great favor there for twenty or thirty years. I think that they will not remain in favor fifty years hence, there or elsewhere, for the relief of simple inflammation.

In mild cases of pneumonitis, and in very feeble subjects, it seems to me most safe to avoid all active treatment. In all cases opiates are sometimes useful to prevent urgent coughing; but they should be used very moderately, and not in the early stage of the disease. When the disease continues, without much abatement, towards the end of the second week diarrhœa sometimes occurs. This should not be checked suddenly, for it affords relief. I think I never saw this except when the disease was in the right side; and I have supposed that the liver was first congested and then a great secretion of bile was induced.

As this letter is not very long, I will add a few words in respect to rheumatism and gout, and only a few.

Rheumatism is a very large box, and contains quite a variety of things; and these things do not all agree, either as to their material, or their form. This is conceded at once as to the acute and chronic. The acute disease, known as *rheumatic fever*, has a pretty distinct character; its form and pressure are such that a man, who has once endured them, does not easily forget

them. It any good is to be done in this disease, it must be at the very beginning; just as I have endeavored to show about all diseases, especially such as are acute. The chance in this disease is not so good as in some others. Free evacuations and low diet from the first are, I think, certainly useful, though they do not jugulate the disease. But there is a natural relief in two or three weeks, and then patient and doctor are too apt to think the disease is going away. Not so; if ever, very rarely. At this stage medicine will not do much, if anything; but care may do much. Not the care which keeps a man smothered up, such as to increase the excessive perspiration which belongs to the disease. Let the patient be as lightly covered as is consistent with his present comfort; that will be enough. But the care must be in avoiding any great effort of body or mind, in maintaining calmness and tranquillity, and in moderate diet. Give enough milk and bread, or some other vegetable article, to support the patient; but withhold animal food. If the disease is not checked at the beginning, avoid all strong medicines, except opium for severe pain. Keep the bowels open, and be watchful as to diet. If anything has been useful in my hands *after the first few days of the disease*, it is the sulphate of quinia. This article, taken as freely as it is for intermittent

fever, appears sometimes to arrest the disease. It is not, however, as certain as was believed by Dr. Haygarth in respect to the cinchona itself.

Next, — the *local rheumatism*, from which a large part of mankind suffer more or less frequently, about the shoulders, or loins, or elsewhere, may, I believe, be stopped in all cases, — *at the beginning ;* and this by the old remedy, flannel, red, blue, or white. Two things are important; first, that the flannel be applied at once, when the pain comes; not by and by. It should be applied within the first six hours; and it is better to apply it the first hour. On the second day it does very little good. Second, the flannel should be new and thick, or doubled, and there should be enough of it to extend much beyond the region affected. It should be kept on until the pain has been quite gone for twenty-four hours. Meanwhile, one who is accustomed to cold bathing may continue this, taking care to use extra friction after it. In some instances of lumbago particularly, I have seen decided benefit from applying a solid lump of ice to the part, and holding it there as long as the patient can make up his mind to bear it. But this should not be done except to a man in good health and of good vigor

Last, there is an affection, called rheumatism, which *begins in the small joints*, in the hands and

feet; first in the hands most commonly. It differs from gout, inasmuch as it begins slightly, and increases gradually, extending from part to part. Probably the patient does not apply for medical aid until he has had it long enough for two or three fits of the gout. By degrees the disease spreads to the large joints; but whereas acute rheumatism is getting well in one part, while it is increasing in another, this disease seldom leaves a part entirely on which it has once fixed itself. It is a chronic disease, not affecting the system very sensibly at first, but gradually bringing on a cachexy. I do not know that any writer has noticed this disease, distinguished by the slow beginning in the small joints and gradually extending; but men of experience cannot have failed to see it, though it is not an every-day malady.

There is a very bad part of this story; bad for me. I do not know of any remedy for it. The patients live under it twenty and thirty years, and of course they try all sorts of remedies, but they do not recover. Such, at least, is my experience. It is to guard against inflicting useless suffering on the patients that I have made this statement. I beg my brethren to be tender with such persons. The humoralists of the present day have turned their attention to rheumatism. I hope that they will continue to study it. The dis-

case I have just referred to, obviously different from any other thing called rheumatism, is most especially worthy the study of men truly scientific, and willing to be patient in their investigations.

Now of *gout*. I shall not say a word respecting the disease; I wish only to consider the treatment. And my only wish on that score is to add my testimony to that of many of the highest authority, in respect to colchicum. That remarkable article is sometimes found useful at any period of gout; but it is comparatively of little use except in the very outset. The great point to be ascertained, in regard to each individual patient, is the dose he requires. This should be enough to act on the bowels quite freely, without being so much as to cause nausea. For most persons such a dose may be found. If some, having irritable stomachs, cannot bear without nausea sufficient for the purpose, then give what the stomach will bear with ease, and repeat the same in six or eight hours. It may sometimes be necessary to use some cathartic in addition. In most instances the fit dose for any individual may be found; that settled, let him take his dose as soon as he feels the gout. Let him not, on any account, wait longer than six hours, after the first sign of gout, before he takes his dose. Then, in all probability, his disease will vanish within twenty-four

hours. He may take a dose unnecessarily once in ten times. This is a small loss for the benefits he will obtain on the whole. Gout is not so common among us as to permit me to speak from a large experience, but I believe this statement to be substantially correct. I should feel less confidence in it, if it did not accord with the opinions of the best physicians in England, the country where the gout prevails most extensively.

LETTER XI.

ON PHTHISIS AND HÆMOPTYSIS.

I SHALL now treat of *Phthisis Pulmonalis*. This is a disease which carries off a very large proportion of mankind in all climates; more, I presume, than one sixth. I confine the name to cases which are founded on tubercles, as most medical men do at the present day. Though almost uniformly fatal, the disease differs much in the rapidity of its course. In general terms, it is more rapid in the young than in those much advanced in life. It occurs in young children, though not frequently. From eighteen to thirty-six years of age, men and women are very subject to it; and its course is comparatively rapid, rarely lasting much more than two years. Some melt away at once; and this happens even to those who, at first, are florid and full of flesh. Some persons endure it for ten and twenty years, and perhaps longer. This happens mostly in those who are thirty-five or forty years old, before the disease commences. Some, who are not very vigorous in appearance, will fight every

inch of ground, even under great suffering. It is not to the slender and feeble only that it comes, but occasionally to large men, showing all the usual marks of vigor. It is a satisfaction to be able to say that phthisis is not always fatal; we do see instances of recovery from it.

I shall not enter into the history of the disease, but shall point out what I consider the great principles, by which to be guided in the treatment of it. These have regard not only to the part affected, but to the system at large. We must endeavor to prevent the cachexy, if that has not appeared, or to overcome it when it has. To effect this purpose we must not rely on medicinal drugs. We must pursue a course calculated to increase the general vigor of the system, trusting to the natural efforts to overcome the disease, if that be possible; and we may do this with the more confidence, as such a course may, at least, prolong life, if we cannot save it. To this end we should direct a nutritious diet; but we must not leave the patient to judge what articles are comprehended in such a diet. For nutrition, we must direct animal food, milk, and the farinaceous articles. These are sufficient for that purpose; but if they should be used alone, the functions of the bowels would not be well performed. In that case, costiveness would lead to

dyspepsy, to dryness of the mouth, to heat of the skin, and, perhaps, to trouble about the head, with uneasy sleep. So far, therefore, as the bowels require it, there should be added fruit and other articles of a laxative character. Next to the diet, and of all things most important, is exercise in the open air. This should be carried as far as the vigor of the patient will permit. It should not be done rashly, but boldly. If possible, the patient should be made to have faith in it; for, without this, he is not likely to pursue it as far as he can, and then he will not derive from it all the benefit which it can afford. An instance occurred to me, nearly fifty years ago, which I have often related since, as well calculated to produce a proper faith. It confirmed my previous convictions on the subject. A man presented himself, in the month of May, who lived in a retired part of Maine, below Penobscot river. He had come from his home, with great inconvenience, to seek for medical aid. I found that he had the usual symptoms of phthisis; he had been confined to his house in January, at which time he sweat profusely in the night, was much reduced in strength, and wretchedly sick. He saw, however, that he and his family must starve, if he could not engage in his usual winter employment of cutting wood. After much reflection he went forth, on

the first of February, with his axe on his shoulder. He labored for half an hour, when he was so exhausted that he was forced to lie down upon the snow. Thus ended his first day's trial. He persevered, however, and by degrees gathered strength, so that at the end of the season he could do a moderate day's work. This story he told me with many details, which I need not repeat. They were such as to show conclusively that his was a case of phthisis. Auscultation was then unknown. I told him that his story was a very interesting one, and very instructive; that he had done more for himself than any drugs could do; and that, if his health could be restored, it would be by continuing the course, on which he had so happily entered.

The mode of exercise should be such as the strength and circumstances of the patient permit. One would not have proposed such a course as was pursued by the man from Maine; and I presume that no man could have gone through that course, who was not urged by necessity. In general, exercise on horseback is to be commended. It does not embarrass the organs of respiration, which walking does in some instances; and it does bring the muscles into play, which *driving*, or riding on wheels, does not. Working in a garden would suit some persons. Any exer-

cise is better than a life of rest. I once had a patient who got his living by white-washing. That is, he passed his time in washing the inside walls and ceilings of houses; thus surrounded by moisture, and in rooms where it was necessary to keep open windows, and consequently steady drafts of air about him. He was satisfied that he did better, when he kept at his work, than when he staid at home.

Besides the attention to diet and exercise, it is proper to enjoin care as to clothing. The skin should be protected against sudden vicissitudes of the weather, by woollen garments. Especial care should be directed, during passive exercise, against the chilling effects of the atmosphere at certain seasons. Yet it is proper that the patient should abstain from such a weight of clothing as would be oppressive. Regular habits as to sleep should be enjoined; and exposure abroad during the evening should be forbidden. But, in the day-time, the patient should not be kept within doors by clouded skies, nor by east winds, nor by slight falls of rain, or of snow. Even in tempestuous weather the more hardy ones may drive out somewhat. It is well for the patient to feel that the *risk is in staying in the house*, and not in going out of it. In all this, I have had reference to tubercular subjects in the earlier periods of disease. But a

patient, with the right spirit, may go abroad somewhat till the last week, and even to the last day of life. If any one object to dragging out a patient, when greatly reduced in strength and flesh, I agree with him; I would not drag him out. But some persons find the open air so necessary to their comfort, that they are anxious to go abroad, though they know that death is near at hand. I think it right that such should do so; they may suffer somewhat in doing it, but they suffer in the opposite course. Contrast with such a case a patient, who passes the last two or three months of life in the bed, sitting up, at most, an hour or two in the day. In such a one, the misery of muscular weakness, added to the necessary evils of the disease, is extremely great. One great evil from a confinement in bed consists in the bed sores, which, for weeks before death, do not permit the patient to find any position, in which he can rest without great pain. It is true that inevitable circumstances may prevent the patient from the exercise, by which these evils may be averted. But, for the most part, we may guard against them, by keeping in mind one physiological principle. In a wasting disease, like phthisis, the muscular strength, once lost, can seldom be regained, and never in the later stage of disease; while the muscles, if kept in daily use, will retain their power,

though not unimpaired, almost to the last moment of life.

I wish not to say anything of medicine in this disease, although much may be done, in its advanced stages, to mitigate troublesome and distressing symptoms. For instance, to patients who can bear it well opium is invaluable. Tonics, too, are occasionally useful. But each case must be studied by itself, and the *juvantia* and *laedentia* must be sought out, without following any universal rules.

There is one affection connected with phthisis which I will treat of separately. This is hæmoptysis, or spitting of blood. This is the first symptom, which occurs in a large proportion of consumptive cases. Quite independently of a knowledge of this fact, spitting of blood always creates alarm in the patient. The stoutest hearts quail under it. Some persons are made faint by the sight of one drop of blood which they believe to come from the lungs. It is thought that there is much present danger from this hemorrhage; but it is not so. Patients, who are taken with spitting of blood, sometimes die at once, or within a few days; but these are in an advanced stage of phthisis. These, I take it, are cases in which an artery of some magnitude is laid open in a tuberculous cavity. The blood-vessels in the parietes of such a

cavity are secured by a natural process, as they are in the parietes of an abscess. But, in rare instances some vessel so secured and plugged up is opened by an ulceration, with which the adhesive process within the vessel has not kept pace. A bleeding from this cause in an advanced stage of the disease is, as before intimated, sometimes immediately fatal.

Another case of immediate death, where hæmoptysis exists, is that arising from the rupture of an aneurism within the thorax. One man with this disease, on waking in the morning, said to his companion that he felt remarkably well. In the next minute the blood began to issue from his mouth, and so much poured out as to run across his chamber. The death was immediate. There was not any *post mortem* examination in this case; but the disease had been distinctly shown during life. Another died after having had repeated bleedings for several successive days. In this instance there was found an aneurism of the aorta, in which an opening had occurred through its thickened parietes, consisting mostly of coagula. This opening was at first very small, but at length enlarging, the whole chest was inundated.

I have known, in my own practice, only two instances in which death has immediately followed hæmoptysis, except such as would come under the

descriptions above given. One of these was in a young man, in whom the spitting had been somewhat profuse and had recurred several times. He was treated under the direction of a very distinguished physician of the day, — fifty years ago, — who prescribed Huxham's tincture of bark, and stimulants generally. The physician took it for granted, as did most medical men at the time, that the bleeding was due to the rupture of an artery; and he explained his practice in this way. He said that two pieces of iron could not be welded together unless they were red-hot; and that two raw surfaces must be strongly excited to make them heal together. Twenty years afterwards I saw another patient who died under hæmoptysis. She was a tender and delicate woman; not pampered; the wife of a mechanic. During a year or more she had attacks of hæmoptysis several times. In the last attack I was summoned to her hastily, and on entering the room found her sitting up in bed, with a bowl before her, into which she was spitting blood. Her whole aspect showed that she was much exhausted. I passed round her bed so as to stand between her and the window, where I could see and examine her best. When I reached this point, in a moment she fell back and expired. She died from the loss of blood, not from

suffocation. In the preceding case I could not get leave to make an examination of the body; but in this last case I was more fortunate. I was assisted in the examination by the late Dr. John G. Gorham. Before opening the body, I stated that there were two questions to be kept in mind. One was, whether there were tubercles. The patient had never had cough to any amount, nor had she had hectic fever. The other question was, how we should ascertain whether there had been rupture of a blood-vessel. On this point I said, if a vessel has been ruptured, we shall find an ecchymosis containing a sufficient quantity of coagulated blood to form a little knot, or hard mass. I grounded this remark, first upon experience, having once opened a body where hemorrhage had taken place into the cavity of the peritoneum, such as to cause death in a few hours. In this case, having removed the blood, after a careful search, I discovered that in one of the ovaries there was an appearance of an ecchymosis; and, at this point, there was a rupture of the ovary, and around it an induration. I believe that the nature of this accident in the ovary is now well understood, and I will not stop to remark upon it. But the appearance, which I had observed, led me to this view of the subject. Whenever a blood-vessel is ruptured, so that the blood shall escape from it, a

portion of this blood must be retained and coagulate in the cellular membrane around the rupture. If you reflect on the matter, you will see that this must happen, wherever the blood-vessel is situated; whether immediately under a serous membrane, so that that membrane is also ruptured, and thus the blood is poured into the serous cavity; or whether in the immediate vicinity of a bronchus, where the rent is continued into the bronchus, so that the blood may issue through the mouth. Or, again, if the vessel is situated in the middle of any organ, surrounded by a large mass of solid matter, the same ecchymosis must be formed; for, in every case, the vessel is immediately connected with the surrounding parts by the cellular membrane. Therefore, in the case before us, I determined to feel carefully in every part of the lung, and wherever I should discover an indurated portion, however small, to cut into that.

Proceeding with these views, I opened the body. On inspection nothing was to be seen of an abnormal kind on the face of the lungs. Then I divided the trachea, when I found its branch on the right side stained with blood, while that on the left was not so. I divided this right bronchus, and pursued the dissection, taking the stain of blood for my guide, and in this way was led to open some three or four branches

of some size, with their subdivisions. While doing this I watched carefully for any appearance of an ecchymosis, but did not find any. Thus far, I had handled the lung as little as was consistent with the examination made. Now I felt over every part of it, going over it slowly and carefully; and wherever I could feel between my thumb and finger the smallest knob, I laid the part open. But the parts, to which I was thus led, were none of them abnormal; nor could I anywhere discover the appearance of an ecchymosis. It is equally true that I could not discover any tubercles. In short, except the blood in the bronchi, nothing abnormal was discovered. The left lung was examined more cursorily, but there was no stain of blood in its principal bronchus.

I may seem to have been more minute than necessary in describing the examination in this case. My reason for being so is, that I assert a negative, namely, that there was *not* any appearance of a ruptured blood-vessel in the lung. It was, therefore, necessary to show that I guarded against all chances of error. Besides, though the opinion I maintain, that in common cases of hæmoptysis the blood is discharged through the exhalants and not through a wound in an artery or vein, is now generally received, I do not recollect ever to have seen such evidence advanced in

its support, as this case affords. I am, therefore, desirous to show that the statement may be relied on.

If we take this case alone, supposing that I was not guilty of any oversight, it would seem certain that the blood escaped from its vessels through the extreme arteries, the exhalants. As there were no tubercles in this case, I may not be justified in saying that hæmoptysis in tuberculous subjects, occurring in the early stages of the disease, takes place in the same manner; but this case shows that bleeding, sufficient to destroy life, may take place by exudation. I feel no doubt that it does happen in this way in the tuberculous cases. Although such an opinion was not very commonly received in my earlier days, I believe that, at this day, there are few pathologists who entertain any doubt on the subject.

It should be noted that, when blood is spit from the mouth, it does not necessarily come from the lungs; and the interesting question, always urged by the patient or his friends, is, whether it has been derived from those organs. The blood discharged from the mouth may be poured out from the exhalants, or larger vessels, directly into that part. I once saw a lady frequently spitting blood, in small quantities, which oozed out from one of her gums. When the blood was wiped off, the gum showed itself beautifully firm and

not at all red. All her teeth and gums were perfectly sound. Ordinarily, the blood is derived from the back part of the nose, or from the fauces, from the gullet or stomach, or from the lungs. It is not difficult, generally, even to common observers, to discover by the manner whether the blood is derived from the patient's mouth. If the amount is at all large, by compressing the mouth and the parts around it, the patient will promote the flow, and spit the blood without any such effort as would be requisite to bring it forward, even from the fauces. If the bleeding is in the fauces, it may be discovered on inspection, in some instances; and, if in any quantity, it will be brought forward, just as is frequently done with mucus. If from the nose, some of the blood will probably pass through the nostrils; but, if not, the patient may draw it down and bring it into the mouth, just as he does with regard to mucus when lodged in the posterior nares. If the bleeding is in the gullet or stomach, it will be brought up by vomiting; if from the lungs, by coughing or hawking. It must be plain that blood will not run up from the stomach, or lungs, against gravity. I say this, because when it is from the lungs, the patient often believes that it flows up without either coughing or hawking. I presume it must always be brought up by one of those

efforts, though the patient and even the bystanders sometimes think otherwise. If it ever does happen otherwise, I think it must be where an aneurism has been ruptured, and the blood is driven forward by the power of the heart. In this case, if the patient be lying in a position nearly horizontal, I presume that the blood may flow through the windpipe into the fauces and mouth. Generally, then, if a patient be spitting blood from the lungs, he raises it by coughing or hawking. If this be not apparent at first, when the blood is flowing copiously, it becomes so, when the bleeding slackens, and the coughing or hawking takes place deliberately. In all this, I have reference to a patient previously well, or, at least, not much advanced in phthisis. We must distinguish, in such cases, the discharge of a few drops of blood, whether pure, or mixed with mucus, from such a flow as that the patient spits out a mouthful at a time. When it comes in the smaller quantity, it may be, if not from the fauces, from the larynx, or trachea. Some persons will very frequently spit some drops of blood in this way, evidently derived from the trachea, there being at the time other symptoms showing disease in that part, while there are no physical signs of disease in the lungs. As such cases excite unnecessary alarm, I wish to make some remarks on them. We are told

that they are attended with danger, for that the disease may travel down from the trachea. I will not say that this is not true, for that would be asserting a universal negative — a very hard thing to prove; but I will say that I have watched this matter for a long while, and have not seen any instance, in which tuberculous disease travelled in this course. I have often seen patients have this trouble in the windpipe, and afterwards die of phthisis; but these persons have had the signs of disease in the lungs as early, or earlier, than the signs of disease in the windpipe.

When pulmonary hæmoptysis does take place, it varies much in the circumstances attending it, and in the quantity of blood which is raised. It is most commonly preceded by cough, or by some pain, or other uncomfortable feeling, in the chest. This feeling may be a sense of fulness, or a stricture in the chest, so that some difficulty of breathing is felt, though not manifested to bystanders. These local symptoms may occur with the hæmoptysis, if they do not precede it. Febrile symptoms attend the spitting, in some instances, especially an acceleration of the pulse. But in other cases the hemorrhage comes on quite alone. It is not rare for the patient to tell you that he had had some cough, or some uneasiness in the breast, but that he awoke in the morning feeling uncommonly

well, and soon after the blood began to come up. As I write, I recall three instances among my friends, each of whom had been riding the day before, and who awoke in a morning with this comfortable feeling, and in each case within an hour a free hemorrhage took place. But if there have not been any morbid feelings or other signs of disease before, nor at the beginning of the hæmoptysis, this is often followed by cough and constitutional symptoms. Yet cases do occur in which there are scarcely any symptoms of disease, other than the bleeding, before, or for a long time after, its occurrence, though at a later period phthisis becomes manifest. In most cases the hæmoptysis returns once, or several times, before any other strong manifestation of disease takes place. In such instances the termination of the whole may be from two to ten years after the first bleeding.

In the great majority of cases the hemorrhage subsides spontaneously without any medicine; but in some it is too copious to be trusted. From what has been before said, we may ordinarily assure the patient that there is not any present danger. This is often important to calm the agitation of mind. With the same view, it is proper to administer some medicine known to have a good tendency, but not of a kind to produce any inconvenience. A popular remedy, often

employed by physicians, is common salt. This is taken in a dry state, or more comfortably in a strong solution. A more agreeable remedy is the diluted sulphuric acid. Of this twenty drops may be taken in sweetened water, and the same repeated once in three or four hours, till the bleeding ceases. Rest of body and mind, and "holding the tongue," are quite as important, at the moment of the bleeding, as the medicinal articles. When the blood comes up very copiously for some time, I employ more potent remedies, particularly the sulphate of copper with opium. The opium is useful in diminishing the cough, by which the bleeding is promoted. The sulphate acts as an astringent, as I suppose. More of this can be used in a pill than in a liquid state. From a quarter of a grain to a grain may be given at once, and this may be repeated in six, or twelve hours, if the hemorrhage does not cease, unless too much nausea is produced. If, however, it occasions vomiting, the bleeding is not increased, but rather checked by it. In an urgent case, which had continued four days, and which I then saw in consultation, I gave a grain of the sulphate with an equal quantity of opium. The bleeding lessened very much soon after; a second dose was given at the end of twelve hours, from which time the bleeding ceased. No inconvenience was

experienced from the copper. A single case like this is not offered as a proof; but this came to me in corroboration of the benefit in many other cases, where there was hemorrhage from other parts of the body, besides the lungs. I have formerly made great use of blisters and the like remedies in cases of hæmoptysis, but I gradually discontinued them from a conviction that they were not necessary, and that they were sometimes injurious. Yet I incline to the belief that, when the bleeding continues for several days, the tendency may be checked by a very small blister, or by the use of croton oil, over a surface not more than an inch in diameter; and by the repetition of this, when the bleeding does not cease.

Bloodletting has been often employed in this affection, with a view to guard against subsequent disease of the lungs, as well as to arrest the bleeding. I have very rarely seen an instance, where it seemed to me to be called for; yet it may sometimes be useful. I think it was so in the case of one of my younger medical friends in a neighboring town. His case presents some points of interest, so that I think it worth stating to you. It occurred more than twenty years ago, and I am happy to say that the patient is now alive and in good health.

In August, 1831, I was called to see my friend,

Dr. Hosmer, of Watertown, and found him raising blood from the lungs in a very unusual quantity. He had, as I knew, been frequently spitting blood for a year preceding, in very small quantities, but had maintained good health, and was engaged in a very extensive business in a circle of five miles' radius. I now found him very hot, with a frequent and hard pulse. The case was so urgent that both he and I thought it most prudent that he should be bled. I bled him twice within twenty-four hours, a pint each time; and we calculated that he could not have raised less than two pints of blood. We came to this conclusion with the utmost caution, fully aware of the common exaggeration on this point. We thought that he was benefited by the venesection. He was, of course, much weakened, and for some hours quite insensible; but the hæmoptysis ceased, and he soon began to recover his strength. At the end of six weeks he was so well that he could not easily keep out of business if he remained at home; he therefore went to the place of his nativity, where he could take exercise freely in the open air without being obliged to attend to patients. There he spent three or four months. The winter was very cold, and he was abroad every day. He then returned well enough to resume his practice. The plan I laid down for him was to live on milk and vegetable food,

and to keep abroad in all weathers, as much as possible on horseback, but to avoid exposure in the night. In the ensuing spring and summer he gained flesh and strength; but, in September following, he told me that he continued to spit a little blood occasionally, and that his pulse would be accelerated at the time, so that he had taken a little blood from his arm, on an average, once a month. On an investigation of the case, I learned that he had found it so inconvenient to ride on horseback, that he travelled mostly on wheels in attending to his business. I urged him to submit to the inconvenience, and to stick to his horse. He did so, and his first ride was too far and too hard. This was followed by a new hæmoptysis. After that he began by riding moderately, but did stick to his horse, and he ceased to spit blood from that time. He has now for many years been in full flesh, with a fine color, and appears very strong. He has been constantly engaged in active business. After one year he returned to common diet, and after a year more he gave up the riding on horseback.

During the hemorrhage I could not make a good exploration of the chest without incommoding him too much. After his recovery I examined him carefully, more than once, without discovering any physical signs of disease in the lungs.

Dr. Hosmer's case was an uncommon one. I have seen instances where the bleeding has been very copious, but none where it has been so large as in his; nor have other circumstances been similar. But I have seen others, for whom I have ordered the same diet as I did for him, and I have believed that advantage was derived from it. They have been instances in which the constitution has shown vigor, and in which the patient has kept up strength and flesh upon the diet. In cases where the cachexy, so common to tubereulous subjects, has shown itself, I have never ventured to forbid the use of animal food. On the contrary, I have advised this food, as far as the appetite would permit, at least once a day.

You will observe, in Dr. Hosmer's case, that as soon as the copious hæmoptysis had ceased, and the patient had regained sufficient strength, I advised him to take active exercise in the open air. A fear is sometimes entertained that the bleeding may be brought on in this way. By long-continued and exhausting fatigue, this may be; and the same after an unusual and violent exertion, as above stated in his case; but such a patient may be brought to very free, active exercise, regardless of weather, without any injury, but with benefit. Captain L—— belonged to a consumptive family, and he was, I may say, in the *habit* of spitting

blood frequently for several years. He had some other unpleasant symptoms. He was very fond of sport, and, after some experience in the case, he adopted the practice of taking his gun and dog, and following the birds for several days, when the bleeding took place, if the season permitted it. He found that he got through the trouble in this way better than in any other. His bleedings were not very copious, though not trivial, and were not attended by fever. He lived many years after the period when I knew him, enjoying tolerably good health, and died suddenly of an acute disease. In this case the practice was not prescribed by myself, though I encouraged a continuance in it.

I am induced to go somewhat largely into this subject, because, while hæmoptysis is justly regarded as a precursor of phthisis, there is a chance for avoiding this termination for a time, and even for a long life. And, where the health does not break down immediately after the bleeding, there is a period when much is to be done for the security of the patient. I say, then, that a patient, spitting blood, may be assured that there is a good chance for his having some years of good health, and some chance for a long life, even though he be young when the bleeding occurs. I

could bring many instances to support this statement. I will mention some of them.

In this city there are three gentlemen, whose business brings them daily within a few doors of each other, now in good health, but who have raised blood freely from the lungs. One of them belongs to a consumptive family. His mother died of phthisis, and one brother and three sisters of his, all adults, died within a few years after he first raised blood. He, Mr. L——, was about twenty years of age when he was taken with a copious hæmoptysis. He was on a voyage to Calcutta. This was in the year 1802. For some years after this he was much troubled with cough, often accompanied by pain in the chest, and at times with sputa to a large amount. In these sputa there was, not rarely, a little blood. After the first years he occasionally expectorated cretaceous matter, in the whole to a large amount. This was evidence that he had tubercles. He has been free from such troubles for many years, though he has frequently had bronchitis, and sometimes this has been protracted. He now enjoys a green old age. His habits have always been active; and while his lungs were much threatened he travelled a good deal. He has had six children and many grandchildren. Of his children one only has had phthisis, and the youngest

is now nearly thirty years of age. This case alone should give encouragement to persons affected with this disease.

Of the other two, one spit blood largely for several days, and was necessarily confined to his bed, in 1818. He is now alive and well. The other spit blood freely in April, 1838, and this was very often repeated for six months. He was much reduced in flesh and strength, though he kept on his feet. In October, he was very short-breathed, and had a cough. He went abroad at this time, and returned the next summer in much better condition. Gradually he recovered his health, and has been constantly engaged in an active life to this day. I should say that, on his return from his travels, I examined him carefully, and could not find any physical sign of disease in his chest. Others, most worthy of reliance, had thought at early periods that they had discovered some slight, yet unequivocal signs of tubercles. I trust, from feelings very different from personal vanity, that my conclusion will be justified by a long life.

I could give other examples of the same kind. But I wish now to state two cases, where life was continued for more than twenty years after hæmoptysis, and where the disease was proved to be tuberculous. One of these was a valued friend of mine, my class-

mate in college, and a physician in this city. He consulted me after having spit blood copiously two or three times. The particular object of the consultation was to decide whether it was expedient for him to take up his residence in a southern climate. This would have been very inconvenient to him, as he must have left a lucrative business here. He had a very good frame, and had always before enjoyed good health. I advised him not to make the change. I stated the opinion, which I had then entertained for some years, and which has been confirmed by all my subsequent experience, namely, that the most important thing for all, threatened with phthisis, is to lead an active life in the open air; and that, if they cannot do that without too much suffering in our cold climate, they should go to a warmer one, where they can do it; but that this step is seldom necessary, except for those, who have been in the habit of keeping much in-doors. As he had passed his life in professional business, he had not become tender. He was, however, accustomed to drive about in a gig, and I advised that he should ride as much as possible on horseback. I advised also milk and vegetable food for his diet, for a year or two. He pursued this course, and he lived about twenty-two years after the hæmoptysis occurred. During this period he had a cough

occasionally, and, perhaps, a little at all times; but he pursued his business, and was often out in the night. A few years before his death he was confined several weeks, and was somewhat reduced by an attack on his lungs, the precise character of which I do not now remember. But, in general, he kept in good flesh and strength, and, having a florid countenance, he had the appearance of perfect health. His death took place from an acute pneumonitis, on the right side, of only five days' continuance. I saw him the day before his death, when respiration was very difficult; but till that day he did not believe his disease to be very serious. On examination, the lower two-thirds of the right lung were found in a state of acute inflammation. At the apex of each lung was found a cavity, that of the right being the largest. Each contained a small mass of putty-like matter, of a brown color. Every appearance showed that these cavities were very old.

The other case was that of a clergyman, who was about twenty-five years old when first attacked by hæmoptysis. He was a more feeble man than the other, but he lived about twenty years after his attack. During sixteen or more of these years he performed the duties of his office, and had tolerably good health, though he was never very strong. For several months before his decease he was obliged to give up the duties

of the church, and at last died suddenly under a profuse hæmoptysis, such as I have described as sometimes occurring in the last stage of phthisis. There was not any examination of his body, but the physical and rational signs had given unequivocal evidence of tuberculous cavities long before death. He had always kept up the habit of exercise abroad, and at times, especially in the first years, had taken much active exercise. He had not done this so much as I wished, yet, undoubtedly, he was supported very much by what he did do.

I have selected those cases from others, because the patients were my friends, and I kept their histories in remembrance. Such cases may be held up to patients as an encouragement to make exertions. You will not suppose that I should expect every one to prolong life as much as these persons did, under the like difficulties. But where the constitution shows good vigor, if the patient can take and bear food, and if not deficient in muscular power, you may hold up to him bright hopes, provided he will *steadfastly* pursue the right course. I had another clergyman under my care, who adhered carefully to my rules after his first hæmoptysis, which was in 1812, for four years, and appeared quite reëstablished in his health, though he had been a good deal reduced before I saw him. Late in 1816 he sent

for me on account of a second hæmoptysis. Being very conscientious, he stated to me, as soon as I came near him, that for four months preceding he had not adhered to my rules. These were not rules as to medicine, for I had not given him any; but rules as to exercise in the open air. From this time he grew more sick, and died about eighteen months afterwards.

It is an opinion often advanced that clergymen are more liable than others to hæmoptysis, and to other diseases of the lungs. It is thought that they suffer from public speaking. I feel assured that this is not true. Besides what I have mentioned, I could refer to one in a neighboring city who raised blood copiously thirty years ago, soon after he began to preach. He was troubled for some time with weakness of voice, and difficulty of breathing, attended by a very quick pulse. He followed my advice with a good and determined spirit. He has been a preacher the whole time, with the exception of one or two years in the beginning, and has had very good health. I have not the least doubt that he has tubercles in his lungs. It is supposed that clergymen must suffer from the amount of their public speaking. The truth is that there are men in other professions who try their voices much more than clergymen do. Such are professors in medical schools, many of whom lecture six days in the

week for three or four months. It is true that they speak in rooms comparatively small, but it is usually for an hour without resting. Lawyers and members of legislative bodies often speak from two to four hours at a time. In respect to the strenuous exertion of the voice, there are many auctioneers who go far before clergymen. Now, I have been in the way of many persons of these descriptions, and have not found them subject to spitting of blood.

I am tempted to relate more cases of hæmoptysis, in which the results have been favorable, for they rise in my mind as I write; but I should cover too many pages. I do not pretend to offer you such a statement, in respect to numbers, as I might have done if I had kept notes; and, therefore, you will consider what I do give you, as illustrating the effect of the principles I advance, not as proving them to be true.

LETTER XII.

ON DYSPEPSY.

I WILL now call your attention to *diseases in the abdominal organs;* and, first, to *dyspepsy.* The proper office of the stomach is to digest the food. The digestion consists in dissolving or softening the food so as to bring it into a pultaceous mass, and in bringing about in this mass certain changes as to the chemical composition of some of its proximate elements. In health, this function is performed with ease, not calling attention to the organ in which it is taking place, but rather inducing a comfortable and grateful feeling over the whole system, body and mind. But sometimes there is a difficulty in the process, causing uneasiness in the stomach, and more or less elsewhere. To this difficulty we give the name of dyspepsy. We do not, however, apply this name to a temporary or casual indigestion, but to a labor in the function which recurs daily, or very frequently. It is not implied in this description that the digestion does not take place.

It may be effected perfectly, but it is done with difficulty; this is all that is essential to the disease. It is nevertheless true that there is, probably, in the great majority of instances, some imperfection in the results of the action of the stomach. There is, of course, every variety in the degree of difficulty, or amount of extra labor, in the cases of dyspepsy. Hence must arise some difference in the manifestations of the disease.

But there are symptoms accompanying dyspepsy, arising from other sources, which we must keep in view if we would understand the disease. They are those which are derived, not from the stomach, but from the other organs of the abdomen connected with it. Those other organs are the intestines, large and small, the liver, pancreas and spleen. These three last I call the subsidiary organs, and of these the liver is most noted. This is the largest of the three organs; its functions are probably the most important, and, at any rate, its secretion, from its taste and color, is most easily noted. To one acquainted with the physiology of these organs the symptoms from these various sources are not, in general, difficult to understand.

This is not all. The stomach maintains a connection, by sympathy and otherwise, with all other parts

of the body. Hence, diseases of other parts may bring on dyspepsy; or this trouble in the stomach may cause disturbances and derangements in various parts of the body and in the mind. Thus the symptoms occurring in this disease are increased in number and variety.

Dyspepsy consists, then, in a difficulty or labor in the digestion of the food; and this difficulty may be various in degree. Its leading symptoms are oppression or uneasiness at the stomach, heartburn, flatulence, eructation of wind, or efforts for this purpose, regurgitation of the food, and sometimes vomiting. I regard the oppression as evidence that the digestion is going on, though with hard labor. It is not uncommon to see food thrown from the stomach, perfectly undigested, several hours after it was swallowed, where there had not been any oppression meanwhile. Here there would seem not to have been any effort to digest the food. The oppression is various in degree. It is somewhat indefinite as to its seat, as all internal feelings are apt to be. It is generally referred to the epigastrium, but it often extends upward under the sternum; when connected with a sense of flatulence it even reaches up to the throat, with a feeling as if it could be relieved only by bringing up the food, or some wind. I will say here that, in these cases, the existence

of air in the stomach is not so certain, as it seems to be. The patient feels distressed, and finds relief when any wind is brought up; and thence he believes that there is a great body of air pent up, which is the cause of his trouble. My suspicion is that the air does not exist there in any extraordinary quantity, and that it is food which prompts the efforts he makes. If air be thrown up the relief is very partial, but it is greater and more permanent if food be regurgitated. It is, therefore, better for the patient not to make violent efforts to produce eructation. Persons, who vomit with ease, will sometimes get relieved by thrusting a finger into the fauces. This should not be encouraged. The temptation to resort to this expedient is very great, and the frequent repetition of it is injurious. Some men will indulge their appetites improperly, relying on relief in this way.

The oppression, or uneasiness at the stomach, usually follows a meal within an hour, but occasionally it is deferred to a later period. It continues from one to three or four hours. There is an uneasiness or pain, which I hardly know how to distinguish from the above, which dyspeptics sometimes experience, from two to four o'clock in the morning. This is the period when gouty persons are apt to suffer. As this comes after a long fast, for it will occur in persons who do

not eat supper, it cannot be regarded as a trouble attending the act of digestion. It is more probable that it results from some acrid matter left in the stomach after the entire conclusion of the digestion.

Heartburn is regarded as the effect of some acid in the stomach. It is most noted when some acescent food has been taken, and may commonly be avoided by abstaining from such food. But it does not always occur when there is an acid in the stomach; for a dyspeptic will sometimes throw up a very sharp acid, when he has not had any heartburn. On the other hand, I think that you will hear of this symptom from persons, who abstain almost entirely from acescent food. May not these facts be explained by the hypothesis, that there is sometimes a very tender spot in the mucous membrane of the stomach, and that the smallest portion of acid may be enough to irritate such a spot?

Flatulence in the stomach, that is, air of some kind developed in that organ, is probably the result of some chemical change in undigested food. That explanation does at least satisfy the most common cases of flatulence in that organ. But, as has been intimated before, the sensations of the patient are probably sometimes deceptive as to the existence of much air in the stomach.

Regurgitation and vomiting of food occur much more readily in some subjects than in others. It is apparently in those, who have a facility in performing an act, which others cannot bring about without great effort, and that only under the influence of some peculiar or very powerful stimulus. This peculiar facility, and its opposite, the great difficulty in bringing up the contents of the stomach, are original differences not to be explained. Other things being equal, the operations above mentioned are not produced so much by the greater difficulty of digestion in one case than in another, as by a greater tenderness in some part of the stomach in some instances. Thus, an ulceration, and, perhaps, even a slight one, in the mucous coat of the stomach may cause the regurgitation, etc. Where vomiting is very frequent, resisting all remedies, there is good cause for suspecting organic disease of the stomach. Yet it must not be admitted as proof of such a disease. The following remarkable history, which I will endeavor to state briefly, will support what I say. This was a case where a severe and obstinate dyspepsy continued for several years, not being relieved by medicine, nor by travelling in this country and in Europe; which at last, while the patient was abroad, terminated in daily vomiting. The patient, a lady, at length restricted herself to one meal a day,

which she took ordinarily at three o'clock. She seemed to throw up the whole of this within three hours, invariably. I was an eye-witness to the act very often. Of course something was retained, as she lived in this state between two and three years. At length she died exhausted. The first symptoms attending her failure seemed to belong to the brain. I called on her in the morning, and she had her usual smile, and asked common questions; but she could not remember what she had said, or what was said to her, for three minutes. Within twenty-four hours she became stupid, and she remained in this state two or three days, when she expired. I mention these circumstances of her death as having some interest. It was a death simply from the want of nutrition. The disease began under circumstances of an afflicting and depressing character. Time removed the feeling of depression, and she grew cheerful. Her mind was bright and active. She went abroad in a carriage as long as she could, and never kept her bed till the last days of her life. I cannot go into all the symptoms, positive and negative. Suffice it to say that there were not any physical signs of organic disease; and, after frequent and thorough investigation of all that belonged to the case, I was perfectly satisfied that there was not any such disease. The autopsy was

made by Dr. J. B. S. Jackson, in the presence of Dr. John Ware, and made with all the precautions necessary to prove a negative. There was not discovered any change in the structure, or organization of any one part. It may be proper to add that the patient belonged to a family, in which some other members had remarkable nervous diseases, though each differing from the others. I relate this case to show that we must be cautious in deciding that there is organic disease of the stomach, even under the most obstinate vomiting. All I would add, besides the absence of physical signs in this case, is, that there was not the physiognomy of organic disease. There was not the sharp emaciation, nor the degeneration of the skin, the roughness and loss of its natural color, which organic disease ordinarily produces.

Dyspepsy is most commonly attended by costiveness, or at least by slowness in the bowels; indeed, the difficulty in the bowels often precedes, if it does not cause, that in the stomach. It is not so easy to manage the case when the costiveness is added to it. Instead of costiveness, diarrhœa occurs in some instances, or the two alternate. The diarrhœa is not constant, but follows the use of indigestible articles, especially of those which are acid, or accescent. To the symptoms belonging to the alimentary canal and its

appendages, are added occasionally some in other organs. Such are headache, vertigo, palpitation of the heart, or uneasy sensations about that vital organ, and pain in the breast, at various points. Likewise the spirits are depressed in many instances; and sometimes you see a dyspeptic who becomes quite incapable of intellectual labor. Some, who study their symptoms, and constantly watch the effects of food and remedies, become notional, and often very unhappy. On this account the physician may be obliged to give up a close inquiry into the course of the disease.

After investigating the history of a dyspeptic, you may find that the principal remote cause of this disease was something which has passed away, but has left a permanent effect. You may strive to remove the effect, but the cause is beyond your reach. Much more frequently you find that the remote cause or causes continue to exist. In such cases you should of course try to remove the effects; but it is of the first importance to remove, or to counteract the causes. Sometimes this is beyond the power of man, though nature may do it in due time; but in the largest number of instances it may be done, if the patient is obedient. Then it becomes necessary to ascertain in each case what causes have produced the disease, and

for this purpose it is often requisite to get a history of the patient's life.

Prominent among the remote causes in question are *errors of diet*. These errors have regard to the quantity, the quality, or the frequency of meals. As to quantity, — one cannot say how much food any individual may require, or can bear. There are instances, in which it is quite clear that the patient does not take enough for his support. There are vastly more, in which he takes too much. If one takes more food than others at the same table, and no other obvious cause for his dyspepsy can be discovered, we may fairly conclude that he takes too much.

In respect to the quality, it would occupy too much space to point out all possible errors. Yet in practice it is not very difficult to decide this point. Has your patient lived on the coarsest vegetable food, and that badly prepared, you will not doubt that there has been a fault in his diet as to quality. You will as little doubt it as to one, who has lived entirely on the most savory articles, with the addition of the strongest condiments. Nor is there much difficulty in the decision, when the errors have been less glaring.

As to the frequency of meals, few adults can take more than three in a day without injury. Children

can eat more frequently; but between eighteen and twenty-five you will find many dyspeptics, who get relief on giving up their childish habits. These and other remarks on diet are not shown to be groundless, because many persons disregard them with impunity. The question is not whether certain practices are always injurious, but whether they are not often, or sometimes so.

Next among the causes of dyspepsy may be mentioned a sedentary life, or a neglect of bodily exercise. From these causes the student and the shoemaker are equally liable to suffer. The evil may be greater, perhaps, to one who undergoes much intellectual labor; but that is not very certain, unless that labor is attended by great responsibility, or by anxiety as to its results. Anxiety alone very often induces dyspepsy. You see this in young men entering on the business of life. I have witnessed it equally in young physicians and young mechanics. Whenever the mind and the heart are too much devoted to one object, the digestion is apt to fail. The same consequence follows from a mere routine in business, where the attention must be constantly maintained, without any real interest in its object.

You find, then, your dyspeptics among those who work in the houses, and not in the fields, who endure

great responsibility, or great anxiety, or who work in a treadmill for a mere maintenance; among those who are half-starved, and among those who gormandize and drink and smoke; and among the dissolute and licentious; so that the disease comes to the wise and to the foolish, to the best and to the worst of men.

A young clergyman, or a young schoolmaster, may call on you, and tell a story, of which, when you have heard the introduction, you might tell him all that follows. It is this: He worked on his father's farm till his eighteenth or twentieth year, and then determined to *get an education.* He crammed himself with Latin and Greek, so as to get into college in two years. While doing this his head began to suffer, and he became costive; but he thought these temporary evils, and sought relief by salts, or other laxatives. He entered college, studied hard, and his stomach began to complain. If not at college, this increase of trouble came on soon after he engaged in his professional studies; and, perhaps, headache also. If your patient be a clergyman, you probably find that he held out till he was ordained, but soon afterwards he found that the duties he had undertaken were too heavy for him. Then his parish were alarmed, and he became the object of sympathy. All began to discuss the nature of his disease, its causes, and the remedies

appropriate to it. Each kind matron pressed her favorite medicine upon him, and all besought him to avoid getting cold. I could add to the story, but that is enough.

In the treatment of a dyspeptic, then, more than of most other invalids, it is the first object to ascertain the remote causes of the disease in his case. To this end you must get a brief history of his life. This requires some cross-questioning; for the patient will often hold back important facts, either because he regards them as unimportant, or because they are such as he does not wish to disclose. If you suspect the last-named difficulty, it is well to say to him that you wish to know whether he has had any secret causes of anxiety or trouble; that, if so, it is enough for him to make a general answer, that you would rather not have the charge of his secrets. You will have the best chance of aiding your patient, if you can keep him under your eye and under your care for a while, so as to ascertain his character and habits, and so as to educate him as to his mode of life. In going over the history of his life from day to day, you may satisfy yourself and make him realize what are the errors of his ways; that he may be convinced that a good life will lead to health; that he must not sin for a week, and seek absolution at the end of it by the aid

of the apothecary. In this last course such a man loses ground constantly.

In many instances, instead of prescribing a medicine, I have found it necessary to give my dyspeptic patient a moral lecture; and that, even though he wore a black coat. My lecture has indeed most often had reference to sensual indulgences; but sometimes it has turned upon points of a very different character. Not unfrequently I have had to descant upon the evils and the impropriety, if not the sin, of over-conscientiousness; of too great an anxiety to do right, and of distressing regrets from the fear of having erred, unintentionally, in some minute particular. In this morbid state a man may waste his present *hours* in lamenting the waste of *minutes* in time past.

But while it is necessary to have reference to the moral state of the dyspeptic, and to advise him how to gain a control over his feelings, this is not all. You must direct him as to diet, exercise, etc., and must prescribe drugs, so far as they are likely to be beneficial to him. I refer mostly to the proper physical benefit to be derived from drugs; but there is a class of patients, over whom you cannot maintain any control, unless you indulge them in some medicine. For their own good, then, they should have some safe article, such as may be useful; but take care, in doing

this, to have regard to the patient only, and not your own glory.

In deciding on the diet, I would first ascertain whether the patient has an appetite for food. The seaman finds his rudder of no avail, unless there is wind enough to give his ship headway. It is of little use to direct what should be eaten, when the patient does not want to eat anything. One must, then, make a choice among difficulties, and let the patient have that, which is least noxious, among those things which he consents to swallow. Indeed, in such a case, we have to consider whether, by some evacuant, or by some tonic, we cannot bring back the appetite. If there be an appetite, the diet for most dyspeptics should consist of animal food, farinaceous articles in their purest state, and butter. I know that this last article is not thought so well of by all mankind, as it is by me. Every little boy knows it has a bad name; and, if bad in quality, or excessive in quantity, it will do harm. But of this I feel assured, that, where farinaceous substances will become acid in the stomach if taken alone, they are less likely to become so if taken with good butter. Also, it adds to the satisfaction of the appetite, and to the nutrition, very much more than in proportion to its quantity. In other words, less bread will answer the purpose, if butter be

added to it. The animal food is valuable because it is easier of digestion than vegetable food, while it is usually most agreeable to the taste. Add, also, that it does not produce acidity, nor flatulence; and it is where these symptoms exist, that we must hold to the most rigid diet. You will remark that the articles I have mentioned may be called dry, in opposition to those which are succulent, and which commonly contain much water and saccharine matter. Those, who suffer from acidity, must avoid vegetable acids, and acescent substances, of which sugar is one of the worst. Such patients should also be very abstemious in the use of liquids, as these promote acidity.

Some condiments must be allowed; at least common salt. If other condiments be required by the habits of the patient, or because the sufferings from flatulence are great, I think you will find the safest to be those in most common use, mustard and pepper, especially the black pepper. The more aromatic spices, such as cloves, are positively injurious to many persons. They paralyze the stomach; not in the strict sense of the word, but they stop its action upon the food.

If costiveness be combined with the dyspepsy, it is very desirable to allow the use of some laxative food. But this food is just such as I have pointed out as

hurtful to many patients suffering from this disease. It is accescent and flatulent. Indeed, it would seem that those parts of the food, which are not digested, are those which exercise the most influence upon the bowels.

What shall we do, then, with the dyspeptic who is costive? To which shall we pay most regard in arranging the diet,—to the stomach, or to the bowels? I reply, to the stomach. You may subject that to some slight inconveniences occasionally; but it must not be annoyed habitually for the sake of the bowels. Keep that in good order, and, as the smaller evil, employ artificial means for the regulation of the bowels. Those means must be the mildest which will effect the object; and we must find out by trial what these are in each particular case.

It is best to use injections into the bowels, if these will answer the purpose. They will do so, if the peristaltic motion is sufficiently active, and if the failure occurs in the rectum only. Then, we should administer from one to two gills of cold, or cool water. If this be insufficient, we may add soap and oil to the water; but very stimulating articles should not be employed for this purpose habitually. The rectum must be treated with caution. The comfort of life is greatly impaired by any injury of this part; a truth, which it would be well if all men were aware of early

in life. If the injections be insufficient, we must try medicines by the stomach. In cases where the dyspepsy is not severe, we may often do well with Seidlitz powders, or Congress water. One of these may be taken every morning before food, in such quantity as is found necessary to give one dejection. But for some persons, especially those who take very little food, it is found more advantageous to employ the laxative medicine every other day. The quantity of liquid in the saline articles above mentioned is an objection to them in some instances of severe dyspepsy. In others, these articles are ineffectual. We should, then, seek such as are more efficient, and less bulky. If we must use them, it is better to give them in such small doses, as that they may operate very slowly; such as will rather crawl through the bowels, than push through them. For the most part it is better to combine two, or more articles, than to give one alone. An article of this character may be used under the name of a dinner-pill; and the name helps take off the odium of a cathartic medicine. A combination may be made up, after trial, to suit each case. You may introduce a very powerful article into such a pill, in a very minute dose. Strychnia is employed in this way at the present day, and my trials of it have led me to think well of it. But it should

be given in a very small dose, from a twelfth to a twenty-fourth part of a grain. It is very essential that it should be equally distributed through the mass, in the compound into which it enters. To effect this, a grain of the strychnia may first be mixed very intimately with a quarter part of the mass, and then this portion may be mixed very thoroughly with the whole of it. A dinner-pill may be taken every day soon after, or just before dinner, as the patient may prefer. He should be apprized that you want only a natural dejection, and that the medicine operates best, when a nurse would say that it had not operated at all. In the use of such an article, one should not be troubled if on some days it fails to have an effect. There are persons for whom one such pill a day is insufficient, and another must be allowed either in the morning or the evening. The patient should be informed when his dinner-pill contains a powerful article, though in a small dose; and he should be warned never to take two at a time, nor even one, oftener than he is directed. If, happily, the case will admit the use of laxative food, we may dispense with all these medicines. In respect to this point, and others for obviating costiveness, I refer you to the letter on constipation.

It was said above that animal food was best adapted to the dyspeptic; but we must beware of universal

propositions and assertions. You will find some instances, in which animal food cannot be digested, or not without much difficulty; but in which bread, rice, and other vegetable food, not acid, are both grateful and borne with ease. I cannot tell you how you are to know, before trial, in what cases this peculiarity occurs. It is not, I think, so common in men as in women; and I believe that it is not found in persons of sedentary habits, whether scholars or artisans.

What shall I drink, is a question from a dyspeptic not easily answered. I believe I have said that much liquid is bad for such a one. In cases at all severe I usually restrict the patient to three gills a day; an amount much less than he probably craves. But what shall this be? Water answers very well in some instances, and it is free from the objections, to which other beverages are liable. But it is too flat for most persons. Let it, then, be tea, or coffee, or cocoa. Chocolate, and other preparations of cocoa, give trouble to some persons, and especially when they are dyspeptic. They cause oppression, or acidity in the stomach, or headache. If the use of them for a few days do not reconcile the stomach to them, they should be omitted. Again, tea and coffee do not suit some individuals of the nervous class, and it is rather fashionable to decry them. There is a notion that what

is agreeable must be bad; but I hold just the contrary doctrine, unless when the patient is induced to take too much, because it is agreeable. It is clearly one recommendation of any article that it is agreeable; and, if an objection is made to such an article, the burden of proof should be thrown upon him who objects to it. Tea and coffee do sometimes produce inconvenience. They occasion watchfulness, or uneasy sleep in the night; also, tremors of the hands and palpitation of the heart, especially when taken without any solid food. Let persons who suffer in these ways use the tea or coffee weak; and, if they still suffer, let them give up the favorite articles. But do not oblige others to give them up on this account. I have watched very carefully, and have never had reason to believe that these articles produced evils at a distant period; it is at the time, within the day when they are used, that the evils come, if they come at all.

Persons who have been accustomed to wine, or malt liquor, often find these salutary once or twice a day. In a large proportion of dyspeptics they become acid in the stomach; and on this account, not because they are stimulant, we are obliged to forbid them. In such cases, where we want the stimulant, and wish to avoid the acidity, brandy, or some other alcoholic liquor, may be used. Whichever is allowed, wine or

spirit, it is proper to prescribe the quantity. In general, for an adult, a gill of good sherry in a day, or a quarter, or a third of that quantity, of good brandy, will suffice; though we must sometimes increase the doses.

I am fully aware of the terrible evils, which may arise from the excessive indulgence in the articles above mentioned; and I have heard it said that physicians have made drunkards by allowing the use of them. This is a matter to be considered gravely. So I thought before the *days of temperance reform.* I advise you to consider it in every case, where you think of prescribing articles capable of producing intoxication. This should be done especially as to the alcoholic articles, as the temptation is to use them, mixed with water, stronger and stronger. Accordingly, I would never order them to one, whom I suspected to be deficient in prudence and self-control. But, keeping these things in mind, I have often directed the use even of brandy. In doing this, I have been in the habit of saying to the patient, "If I ever hear of your indulging to excess in the use of this, or any similar article, I will call on you and exhort you to stop." In one instance, and only one, in the course of a long life, have I been called upon to redeem my pledge. This was in the case of a worthy lady, some

twenty years after I had directed the measured use of brandy. At my request she immediately gave up the use of all spirituous and fermented liquors, and I have reason to believe that she never resumed them. I do not, then, call the risk very great of such prescriptions, when made with proper caution. In regard to the benefit in some cases of dyspepsy, and in various other cases, I have not any doubt. And, that I may tell the whole, let me say, that I have repeatedly seen very great benefit from giving wine to young children. The benefit has been particularly marked in some children struggling feebly through the period of dentition; and I can name some to whom I had made this prescription more than forty years ago, among whom not one has shown any peculiar fondness for wine in subsequent years. I exhort all young people in health not to adopt the practice of drinking wine. I deprecate everything which shall tend to intemperance, and I believe that many men suffer from the use of wine and spirits even in a moderate way. But I love to tell the truth, even when it is unfashionable. I believe that very many persons are benefited by the juice of the grape, and I choose to say so. Moreover, I believe that persons disposed to intemperance are not to be restrained from indulging their vicious propensity, by the abstinence of their more prudent

neighbors. These are opinions at which I have arrived after much attention to the subject. Others, men of the first respectability, disagree with me entirely. Let it be so; but I trust that the majority will agree that it is possible for them to be in the wrong, and not insist upon controlling the minority on this subject, any more than as to the question whether animal or vegetable food is the most wholesome. It is not a settled point whether woollen clothing should be worn next the skin. Shall a minority be obliged to submit to the majority in this matter?

I have made some remarks in favor of moderation in eating, but something definite may be expected on this head. I believe that Mr. Abernethy limited his patients to four ounces of meat at a meal. I would as soon prescribe to every dyspeptic to wear a coat of a certain size and shape, as to direct the food in this way. This matter of more or less is difficult to settle, and yet every man of common sense knows what is much and what is little for himself at a meal. Every man can tell you whether it is raining hard or not; and yet any one would stare at you if you should ask, in such a case, how much it must rain in an hour for you to say that it is raining hard. As to eating, a man may compare himself with those about him, and with himself, when in health, to decide whether he is

moderate or not. But if you must prescribe the quantity, direct the patient with precision, for two or three days, how much to take, and then judge by the effects whether your allowance is too much or too little. You need not have the food weighed; it will suffice if you look at the patient's thumb or finger, and let him judge by that; allowing him, for instance, as much meat as two or four fingers, and twice as much bread at his dinner. One rule you may always give, to be regarded over all others, namely, not to eat quite so much as the appetite demands. This, indeed, must not be applied to a man without appetite.

I must now add something respecting bodily exercise. The importance of this is so familiar to my own mind, that I feel as if I should be giving you truisms in stating my views on the subject. I have said already that the dyspepties are found mostly among those who live in the house. There are men, of the true Dutch breed, who can live in the house fifty years without finding out what dyspepsy is. But such persons could hold out twenty years longer, if they would take exercise abroad. I do not say this at a guess; for I have seen it tried, and, if it would not take up too much time, I would state the cases. At any rate, the dyspeptic must take exercise abroad; and, if he says he is too weak, this only proves more strongly

the necessity of obeying the law. If he can only walk to the end of his street, or if he can walk only five rods, let him do that as often as he can, and his strength will increase. If he can take a good walk, let him go out at least twice in the day. If possible, let him have some object, but not such as to burden him. Or, as far as his strength will permit, let him combine amusement with his exercise. At the commencement of the treatment it is often expedient to send the patient on a journey. In doing this he should be cautioned to adhere to rules as to diet, so far as possible. Likewise, he should take some exercise on foot daily. He should not be on the road more than four, or six hours in the day. He should get all the amusement which his strength will permit. He should give proper time for sleep, and should not be hurried off in the morning. Our railroads give us great conveniences, but do not always allow the invalid as much accommodation, as could be had before they were built. I have referred to walking as one mode of exercise, and, if the patient can endure it, this should never be omitted; but those to whom it is convenient should also ride on horseback. This is an excellent mode of exercise anywhere, but it is particularly valuable to men of business in a city, to whom it is important to make the most of a single hour.

Next, as to the medicinal treatment. I have already spoken of the remedies for constipation, or slow bowels. One of the most obvious requisites for the dyspeptic, at first view, is a tonic. Exercise is a tonic above all medicinal articles; but these also may be employed with advantage in many instances. A faintness, or sinking at the stomach, sometimes even a painful faintness is among the annoying symptoms of dyspepsy. For this, the sub-nitrate of bismuth is a very valuable remedy. It is not always successful, but often operates like a charm. But it will be found best to intermit the use of it after two or three weeks. It may be given in doses of five grains three times a day. This dose is enough for any one, and it is very rarely too much. The mode of giving it is not unimportant. As it is a metallic substance, it is most convenient to give it in some viscid liquid, though it can be taken, out of a teaspoon, with a little water. We commonly use a syrup, when we want a viscid liquid for medicine ; but the stomach of the dyspeptic does not bear this article very well. It is better to use gum acacia; and it is most convenient to mix the bismuth with an equal quantity of this gum in powder, and then to direct the patient to take it, mixed with a few drops of water. This is better than to put the medicine into the form of pills.

When the appetite is deficient, a vegetable sub-tonic may be given. There are abundance of these. I am in the habit of using one, which may not, however, be better than many others. I direct an ounce of cascarilla bark bruised, and from two to four drachms of quassia rasped, to be mixed with a pint of boiling water. This mixture should stand for three or four hours; the liquid should be strained off, and to this should be added one or two ounces of the tincture of cardamoms; or, if there be any diarrhœa, tincture of cinnamon. Of the liquid thus prepared, the patient should take one to two tablespoonfuls three times a day. When the object is to operate on the whole system, especially for anæmic patients, some preparation of iron is preferable. The preparations of iron are very numerous, and you may select the one best adapted to the circumstances. The compound mixture of iron is a very valuable one, in doses of from one to two tablespoonfuls three times a day. One more agreeable to the taste is the citrate of iron, in doses of five grains or more.

Many dyspeptics gain very much by visiting mineral springs, particularly those at Saratoga. After using the *Congress water* at that place, for a short time, the patient is apt to believe himself well. In his third week he eats what he pleases, and as much

as he pleases, and no evil ensues. But all this depends on the daily use of the water. He leaves the springs, and when he reaches home, perhaps the first evening, he indulges in a supper. The next morning he awakes with a crowded head, or a bad taste in his mouth, and finds that he is no longer at Saratoga. He complains of the bad air of the city; but the truth is, he did not get his water the morning before, and the gutter has not been washed out. Nevertheless, with proper prudence, much may be gained at the watering-place. The patient should be moderate in his diet when he is there, and be especially careful to avoid the errors above mentioned on his return home.

Finally, many dyspeptics never get perfectly well; yet they recover enough to enjoy life, if they will adhere to the restraints and to the efforts which experience shows to be necessary. There is one comfort, however. Not unfrequently, between sixty and seventy years of age, men get over this complaint, and can indulge in the use of food, which they had not been able to bear for twenty or thirty years. This is not, I think, so often true among women, as in our sex.

LETTER XIII.

ON SOME DISEASES OF THE INTESTINES, PARTICULARLY OF THE CŒCUM AND COLON.

This letter will be on *diseases of the intestines.* You will not suppose that I shall embrace in so small a compass even a brief account of all those diseases. I shall present to you some physiological and pathological views in respect to the intestinal canal, which I have long entertained, and which I think have aided me in practice. I make no claim to originality as to these views, or doctrines; for, in truth, I cannot remember whether I have derived them from any one else, or not. If you get to have just notions of the simpler diseases of this important part of the organic system, you will be prepared to study with greater ease its more complicated affections. I shall afterwards treat more particularly of two diseases of the cœcum and colon.

Our knowledge in regard to the functions of the stomach is not so full, nor so precise, as we could

wish; but our knowledge of the functions of the intestines is still more deficient. We know, indeed, that the chyme, or mass poured out from the stomach into the duodenum, is there mixed with the bile and pancreatic juice; that it is then carried slowly through the small intestine; and that, in its passage, the chyle is taken up by the lacteals. It would seem, at first view, that nothing remained but to carry off the refuse, or fæcal part of this mass. But there is something more to be done; and it is that which we do not sufficiently understand. When you notice the difference in the form and structure of the various parts of the canal, you are led to inquire into their different offices. To say nothing of the small glands scattered through these organs, observe only the distinct characters of the small and large intestines. The contents of the smaller, after the removal of the chyle, are discharged into the larger, and they are not permitted to return; for a valve, placed in the colon, prevents it. Having passed this barrier, the mass falls into a blind sac, the cœcum, evidently designed to retain it for a certain time. Unquestionably some change is wrought in the mass while in this receptacle, and something, not chyle, must be absorbed from it, while it is transported through the long tract of the colon. What the change is, and

what the material absorbed, has never been explained, so far as I know. I do not speak of what has been guessed, but of what has been ascertained. I have never heard of any shrewd guesses even. Suppose it proved that some muriatic or other acid is found in the cœcum; that will suggest that this acid has some purpose; but the question is, *what purpose*. We must attach more importance to the operations of the large intestine, when we notice that they are not designed to carry forward their contents rapidly, but the contrary. After its resting-spell in the cœcum, the fæcal mass, a dead weight, must be started up from that pouch, be carried through the ascending, transverse, and descending colon, and in its course must meet an obstacle, evidently designed, at the angle formed between these two last portions of that intestine. I may mention also some delay in the passage through the sigmoid flexure of the same intestine. Where there are provisions so evidently fitted to hold back the mass in its course, we can see how easily obstructions may take place to the easy and perfect accomplishment of the functions of this machinery. In addition to the mechanical obstacles to the rapid passage of the fæces, we know that the change of the semi-fluid mass to a state of comparative solidity may be carried beyond its due point, and

thus a new difficulty arises in the process of defecation.

Some explanation is thus suggested of the habitual constipation, so common among persons not leading natural lives; and some explanation, also, in regard to other diseases of the bowels. But there is a great variety in these diseases, which we should, no doubt, better understand, if their normal functions were more fully known to us.

A disorder in any one part of the alimentary canal may, directly or indirectly, affect all other parts of it. It is chyme, and not crude food, which can be acted upon properly in the duodenum and other intestines. If, then, the food, while in the stomach, be not changed into chyme, more or less disorder may be produced both in the small and large intestines. In like manner, if a failure should occur in any part of the intestines, the portion of the canal below that part must receive the materials in a comparatively crude state, so that here also the disorder would be propagated from the superior to the inferior part. This, which seems so obvious in theory, is found true in fact. But I must add that this is not found to be true invariably. We must always be cautious in adopting unqualified and universal principles, especially in regard to living bodies. In a vigorous state of the digestive organs, a

proportion of the food may pass through the canal, quite unchanged, without occasioning any manifest inconvenience. It is well known that seeds pass in this way without losing their vitality, for they germinate afterwards.

Again, it is often found that a disease in any part of the intestines, the colon for instance, disorders the stomach and small intestine, as well as the parts below it. Here a different explanation is required; and the best is that the parts above the original disease are affected by *sympathy*. I shall not dispute with any one who carps at this word, sympathy, so long as he will allow that the influence of the lower part upon the upper is to be attributed to a vital power; not like that considered above, which consists in the transmission of a crude material. It should be noted that the lower part may be influenced through the same vital power, where the higher part is diseased. Thus, a disease of the stomach may disorder the parts below it in two different modes.

I do not adduce evidence in support of the propositions I have laid down. A careful observer cannot, I think, fail to discover instances which prove them. But now, do you ask, whether we can always, in diseases of the alimentary canal, satisfy ourselves as to the part first affected, and as to the mode of the prop-

agation in each individual case? To this question I must answer, no. I have pointed out the modes in which I believe that disease in one part affects another, as preparatory to another statement; this is, that in a violent attack on any one part, others are affected almost simultaneously, so as to throw much confusion upon the subject. This is the great embarrassment in the early stages of maladies in the digestive apparatus. There are two other causes of embarrassment in the same tribe of diseases. One is, that an inflammation of the mucous membrane of the canal may extend from day to day, so as to be subsiding on one part while it is increasing upon another, as erysipelas does on the skin, and as a fire does upon grass. The other is, that the stomach is often, as the intestines are occasionally, affected by *sympathy* with some distant organ; and the disorder, thus introduced into one part of the canal, may in some way derange other parts of it.

Here are the difficulties. I believe that, when we can get an exact history of the disease, and an account of its precursors, a due consideration of the whole will enable us to overcome these difficulties in a good measure. Not, however, always, nor entirely. Such embarrassments may bring to your mind what I have said of our imperfect knowledge of the normal functions of the organs concerned.

The difficulties, thus brought before you, relate to the question as to the primary seat of trouble, or of disease, in disorders of the alimentary canal. When this question is answered, we have to inquire what this original affection consists in. To meet this inquiry, let me say that there are two very obvious modes, in which a disorder in this canal may commence. The *first* is by an article introduced into it, which is offensive to it, or to some part of it. Thus, ipecacuanha will occasion vomiting, and sulphate of magnesia will occasion a diarrhœa. The *second* is a disease on some one, or more spots in any one of the coats, or tissues of the canal. Thus, an inflammation in either of these coats, or a paralysis in the muscular coat, may be supposed to be the primary affection. An inflammation of the mucous coat of the stomach may cause vomiting, as well as the introduction of ipecacuanha into that organ. Vomiting occasioned by ipecac. will usually cease soon after the offending cause is removed; and, after a period of rest, the patient is soon well, provided he was well before. When the mucous coat of the stomach is inflamed, the disease must go through a certain course, during which the functions of the stomach must be impaired or arrested; and other symptoms will ensue, more or less, according to the extent, character, and violence of the in-

flammation. Analogous remarks will hold true as to cases, in which the intestines, in any of their parts, are the seat of the inflammation.

It was stated that, when ipecac. is taken into the stomach, it excites efforts by which it is removed; and other substances, so received, may be expelled by the intestines, supposing in such cases that a sufficient quantity is taken to provoke the necessary efforts. Such, however, are not the effects of all offensive substances; and, when they are not, it may be proper to adopt measures either to provoke the salutary evacuations, or to neutralize the offending article.

When it is ascertained that the disease is an inflammation, we take measures, negative or positive, to counteract this morbid affection. By negative measures, in this case, would be understood rest and abstinence, more or less complete; allowing only bland articles to be introduced into the stomach, and in limited quantities, so as to allow the disease to go through its ordinary processes with the least possible interruption. Treated in this way, a diarrhœa, the consequence of an inflammation in the mucous coat of the intestines, may pass away with very little inconvenience.

But now, suppose the inflammation to be severe, and, perhaps, to extend to the muscular coat; then

motion of the diseased part may cause severe pain, and the lameness may be so great as to impede the passage of any material through it. To get a distinct view of the subject, let us imagine the inflammation to occupy a ring of the intestine, say four to twelve inches in width. It is easy to understand that this part may be lamed, as the fingers sometimes are, by rheumatism, so that they cannot be opened or shut. Suppose such a diseased patch in the colon, very much less than we often find after a fatal dysentery, what effects may we anticipate? The patient may be presumed to have the usual materials in the canal, above and below the diseased part. Those below it may be discharged without material difficulty. Those above it would occasion a great deal of difficulty; more or less, according to the extent, character and violence, of the inflammation. The sound portions above would continue to carry down their contents to the inflamed part; but here an embarrassment must ensue. This lame part could not expand with freedom, nor yield to the pressure so as to give an entrance to the materials brought to it. Or it might allow only a small portion to enter it occasionally, carrying that through it slowly and with pain. But this small portion would not pass alone into the sound intestine below it. It would be accompanied by some product from the

morbid surface. This surface would pour out an extra portion of mucous or serous fluid, or, perhaps, some blood, and, ultimately, some pus. Meanwhile, the pressure of fæces from above would be constantly provoking an attempt in the morbid part to receive and transmit them. In such a case the actual discharges from the bowels would consist mainly of the fluids from the inflamed surface, as above described, with very little, if any, fæcal matter. This matter would be wrapt up in the mucous and morbid products, and would rarely pass in any great quantity until the violence of the inflammation should subside. If such a disease should be of large extent it would be attended by constitutional affections, of which one symptom would be great prostration of strength. You see here we have a case of dysentery, viewed as if the parts affected were opened to our inspection. My design has been to give you what I consider the true explanation of this disease, including such general remarks as would apply to milder affections of the inflammatory kind in the intestinal canal. I shall say nothing of treatment. My purpose is answered if I have suggested the proper way of regarding diseases of the alimentary canal. I have treated, in the most elementary way, of inflammation as disqualifying the canal for performing its common functions, and as

occasioning the production of morbid matters, which are discharged from the body. There are other organic affections of the same parts, which may interfere with the proper motions of the intestinal canal, or obstruct the passage of its contents; such as tumors, whether benign or malignant. It is not in my plan to treat of these.

To understand well a disease of the intestines we should know from day to day all the ingesta; everything taken into the stomach, solid or liquid; including the time when each portion is taken and the quantity. We should next see each dejection from the bowels by itself, just as it took place, without any mechanical disturbance of it, noting the period of its occurrence. Last, we should ascertain how the patient has passed his time, whether in exercise, or at rest; whether at ease, or in pain; whether under febrile disturbance, or calm and cool. It is not so easy to learn all these details respecting adults, as it is in respect to young children. You will therefore find a great advantage in studying diseases of the stomach and bowels in children. If you get faithful reports from their attendants, you may often understand, almost exactly, what has been going on in their digestive organs. It is true, indeed, that you see in them the most simple diseases; but a familiar

acquaintance with these prepares you for the study of other affections of the same parts.

In the beginning of this letter I referred to two affections of the cœcum and colon, on which I have something to offer you. The first I shall mention is an undue enlargement of the ascending colon, sometimes, perhaps, extended to the whole colon. The ascending colon has to carry up the fæces in opposition to gravity, when the body is in an erect position. It is fitted for its office, and performs it without attracting attention in persons leading a natural life. But in some individuals a failure frequently takes place, and an undue quantity of air accumulates in, and distends this part of, the intestine. A certain portion of air excites the organ to contract, and thus is salutary. But, if it fails, the muscular power of the organ is impaired by the distention, and from year to year that organ becomes less and less able to do its proper work. It is in sedentary people, especially in those of them who are fat and sluggish, moving slowly when they do move, that this trouble is the worst; but I believe that it exists in a slight degree in many individuals not like those above described. Those, who are affected in this way, are habitually costive and suffer much from flatus in the bowels. They have periods when they are generally uncomfortable and

complain particularly of some uneasiness about the right side of the abdomen, where, if they are not too fat, some fulness may be discovered. As happens most frequently in regard to sensations within the great cavities, the seat of the uneasiness is not very clearly ascertained. Some doctor, who is so learned as to know that the liver is on the right side, is apt to think of that organ. The patient is then adjudged to be *bilious*, and is under suspicion of a diseased liver. He takes a blue pill for a few nights, and Seidlitz powder in the mornings. The intestines are unloaded and the patient is relieved. Then it is considered as proved that the difficulty was in the liver, and that the blue pill, being the police officer, who has the special charge of that organ, has put all things to rights. I feel well assured that something like this is the case in a large proportion of the "liver cases," so called. Here is an error in diagnosis, it may be said, yet the patient finds relief from the treatment, and that is enough. Is it so? Does error often lead to truth, or to a wise course? The patient is led to believe that he is the subject of a disease, or difficulty, which cannot be helped without an active medicine, frequently repeated. When he is better, he is not told how to keep so. It is not suggested to him that a change in his habits is requisite. The disease may

be too great and of too long standing to admit of entire relief, but it may still be lessened by diet and regimen. When not so confirmed, much may be done. Exercise, and especially walking, must be enjoined as absolutely necessary. To this should be added friction over the abdomen, and especially over the colon. In this way the difficulty may be relieved, in part at least. It may be useful to add laxative food; but how far this can be done with advantage must be studied out in each case. The difficulty on this point arises from the flatulence, which is increased by such food, when it does not succeed in making the bowels sufficiently active. Sometimes a portion of gently stimulating articles, such as are called carminative, will help the laxative articles. It is a case where mustard-seed may be tried. But in obstinate cases, such as come mostly under the charge of the physician, some laxative medicine must be used frequently, perhaps daily. This medicine should be the mildest which, on trial, is found to answer the purpose; and the patient must be made to understand that the object is simply to bring away the fæces; and that the medicine operates best, when the dejection is the most natural in its aspect. By pursuing such a course steadily there is some chance for recovery in persons under fifty; but in those who are beginning

to get old, we may be satisfied if we can prevent an increase of the disease. In persons who suffer from this disease of the colon an enema will not suffice, for the fæces are not brought within its reach. In bad cases Seidlitz powders, Congress water, and similar articles may not be sufficient to bring the loaded and debilitated organ into action. A dinner-pill, or a pill at bed-time, or, perhaps, more than one, will be needed to effect the object; or rhubarb may be used for those on whom it acts kindly. When the medicine is not quite enough, the load may be helped through by an injection of cold water. In this troublesome disease the physician must watch the patient for a while, and teach him how to judge of the effects of remedies; for there are few who can learn their lesson without a tutor.

I may, perhaps, have exaggerated the picture of this disease; but something like it is frequent among sedentary persons, especially among those who are full feeders. Of course, there is every difference of degree. The disease might be included under that of habitual constipation. But the constipation does not necessarily include the general uneasy state of the abdomen, nor the particular suffering, or discomfort on the right side. In many cases of constipation the whole trouble is in, or near to the rectum.

There is another disease, in which the cœcum may be suspected to take a part, which is not extremely rare; and yet, so far as I know, it has not been distinctly described. I will attempt the description, but may not be successful; for there is great variety in the severity and in all the circumstances of the cases, which I include under this head. It came to my knowledge gradually, in a group with other diseases in the same vicinity. After I had been led to distinguish it from the others, I could look back and find that I had seen it before.

In my early years I noticed, as others have done, that in peritonitis the inflammation was greatest on the right side of the abdomen, and in the lowest half of it. Let me call this lower half the *iliac quarter*, for it extends somewhat beyond what is called the iliac region. Subsequently I found that this quarter was also the seat of other diseases, oftener than the corresponding part on the left side. I may mention painful affections and tumors of different sorts, which I met with on the right side more than on the left. At length, within the last fifteen years, perhaps, I got to distinguish the particular disease, which I wish now to make known to you. I must give a name to this affection, as it is inconvenient to get on without one; therefore, in the present state of our knowledge,

I will denominate it *a painful tumor near the cœcum.* I will state some cases of it before giving a general description. There is something in common to these cases, while they differ in their extent, violence and duration.

A young lady, when absent from home in the spring of the year, took cold, as she said. She became quite sick, and had much trouble in the stomach and bowels for two or three weeks. She did not get quite well, and the same symptoms returned more than once after she came home. It became a question whether she had a partial peritonitis, and at any rate there was suffering in the right iliac quarter. An attack took place again in the summer, when she was at some distance from home. This was more obstinate than the earlier ones, and confined her to her bed. At this period the case was described to me, and I asked if there was not a little tumor in the right iliac quarter. Her physician was very careful and thoughtful; he said he had examined the parts complained of, and he believed there was not any such tumor. He was not, however, then acquainted with the disease. Soon after this I visited the lady and detected the tumor. It did not lie superficially, so that it was not felt in passing the hand over the abdomen; but it was perceived at once on pressing the fingers

down to some little depth. It was at the point where a horizontal line, drawn from the anterior superior spinous process of one ilium to that of the other, crosses the outer edge of the right rectus muscle. It was in shape rather oval than round, and flattened; and was larger than an almond, somewhat movable, and so tender to the touch that the patient winced, or cried out, every time that I pressed on it. The pressure did not, however, cause extreme pain. I found it at once, because I had before learned where and how to feel for it; otherwise I might have missed it. The patient had now been sick for two or three weeks, her symptoms varying much in severity. The principal complaint was a pain in the right side of the abdomen, and more in the lower than the upper part of that side. With this her appetite was quite lost at times, but not constantly. She had frequent attacks of the pain, with some febrile symptoms. They were attributed to the food she took, to the exertions she made when feeling better, and to a deficiency in the alvine discharges. Laxatives afforded her great relief for a time, but a frequent repetition of them was necessary. She remained in a tender state for several weeks, so as to delay her return home, and it was necessary to remove her with peculiar care. At home she soon recovered strength enough to move about,

but for many months she had an occasional attack of the disease. As this was now understood, it was arrested very soon by evacuations of the bowels, a few leeches, and, perhaps, a small blister, with bodily rest and abstinence. Within a year from her first attack she became quite well, and eight or ten years have now passed without any return of the malady.

I have seen cases more severe than this, and some much more mild and shorter. Of the last description is the following.

In 1849, H. M., a woman between thirty and forty, of very good habits, and leading an easy life, though a domestic, complained to me of pain on the right side of the abdomen. She had had it for two or three weeks, and felt less able to attend to her business than usual, yet had not relinquished it entirely; she could not assign any cause for the pain. On examination I found a tumor much like that in the preceding case, and in the same situation. It was not discovered on light pressure, but on pressing the fingers somewhat into the abdomen while the patient was on her back. She was not aware that there was any tumor, or that any was suspected, but she complained at the moment when I touched it, and did not acknowledge any like tenderness upon pressure in any other part of the abdomen. The pain, however, extended beyond its seat, particu-

larly above it. She had one symptom, which I have never known in any other case. This was pain in the iliac quarter on sitting down and on rising from her chair. It was not a severe pain. There was not any strongly-marked constitutional affection, though she felt less well than usual.

The remedies employed were cathartics, leeches twice and blisters twice, over the seat of the tumor. Under the use of these she grew better, but at the end of a fortnight the tumor could still be felt. I then ordered an ointment of iodine and hydriodate of potass to be applied over it, and under the use of this she got quite well within two or three weeks. Whether the ointment helped it is uncertain; but, in respect to the benefit of the other remedies, I felt no doubt, as manifest relief followed each one of them. In this case the tumor could be covered entirely by a half-dollar. She has not had any return of the disease.

It was I believe at an earlier date that I saw Mr. B——, a young gentleman, in consultation, who had acute pain in the abdomen, somewhat of the character of colic pain. It was severe, and he was on his bed. I saw him, I think, on the second day of the attack, and was told that he had had a similar affection not many weeks previous. On examination I found distinct tenderness at the spot before described, but there

was very little, if any, tumor. By remedies like those used in the last case he was soon relieved entirely. I inquired from time to time afterwards, and found that he had not had a third attack. Though the evidence of a tumor was very equivocal, and at the most it was very small, I have always suspected that the disease was the same as in the preceding cases, and that its recurrence was probably prevented by the remedies. If so, he gained by the severity of the case, which obliged him to seek medical aid at once.

The following is a case of much greater severity and duration, which, however, I consider as similar to the others in its essential character. The patient, Mr. R——, was past middle life, a business man, of active habits, and of a distinctly nervous temperament. He had been sick, much of the time in bed, for two or three months before I was called to him in consultation. He had a good physician, who was not, however, acquainted with the disease. This man had a large tumor, two inches in diameter, which came under the spot before described on the borders of the iliac quarter. I do not mean that the angle of the lines described was over the centre of the swelling. The tumor laid nearer the surface than either of the others, and felt as if extending deeper. In other words, it was thicker than the others. It was painful and

tender to the touch. There were febrile symptoms, which had been varying from time to time. The digestive apparatus was all wrong. He was so sick that his life was considered in danger. Leeches and vesication had decidedly good effects as regarded pain and soreness, and the size of the tumor was lessened somewhat under the use of them. Strong cathartics, acting freely, afforded him great relief, so that he never felt as if he had enough. The quantity of fæces was very large, more than his food seemed to account for. The evacuations never caused any marked change in the swelling, as if an accumulation in the intestine had taken place. For a while he gained in strength and spirits, took food well, and the tumor became smaller. But when he had been sick five or six months a new trouble came on. This was insanity. This occasioned his removal from town, and I saw no more of him. This occurred ten or more years ago, and I believe he is still living with his mind deranged. So far as I have been able to learn, the first disease has never been troublesome since he left town, and probably it has subsided. The termination of this case was the worst I have ever known. There was not, however, anything to show that the two diseases were connected, except that one followed the other.

I will give you one more case, and a very interest-

ing one. It is that of a young physician, Dr. H——, who had been engaged in unwonted labor three or four months before his sickness. It occurred in the summer of 1846. When I first saw him he was on his bed, prostrated, with a very bad and anxious countenance, modified in expression by opium, which he had been taking freely; skin hot, pulse hard and frequent. His abdomen was very hard, painful and tender. His worst pain was in the *right iliac quarter*, and I found there a tumor in the usual place, of which he was not aware. This was very tender to the touch; a silver dollar would about cover it. His own recollection, of the preceding part of the disease particularly, has been recently given to me in the following words:

"The disease commenced, I think, about twelve days before you saw me. At that time, while driving out of town in the evening, and through some low ground, after leaving a very hot room, I became much chilled. It was not merely a sensation of coldness, but a distinct rigor, the effect lasting several hours. This was followed in a day or two by tenderness of the abdomen, and a general sensation of being ill. The tenderness increased continually, so that, for several days before I saw you, the motion of the vehicle over the pavement caused me great pain. On Satur-

day the pain and tenderness were constant, and it seemed as if I could count every stone I rode over. At night I went to my bed and took laudanum very freely. The agony was such I could not remain in bed, and much of the night I was walking about the room. I continued the laudanum through the night, but do not think much of it was retained; at all events it did not produce sleep, nor at all mitigate the pain. On Sunday morning I went out as usual, but the motion was so painful I could not allow the horse to go beyond a walk. After seeing a few patients I felt that I could do no more. I then got some leeches and went home to apply them, but finding that I was growing worse, sent for you soon afterwards. At this time my abdomen was very hard all over, my face, as I saw in the glass, of a dark purplish color, my breathing very short, labored and painful; in fact, I thought I was dying. You immediately opened a vein. The blood at first was very thick; it looked to me like tar, but it soon came to move freely and ran a good stream; this you allowed it to do till I was faint. The relief, as to the pain and dyspnœa, was decided and immediate. You then directed twenty leeches to be applied to the abdomen (I had previously applied a few), and in the evening you and Dr. Bigelow advised a repetition of the bleeding, and I believe

about as much blood was taken as in the morning. No blister was applied over the abdomen then; but, some time after, you directed a succession of them to be applied over the hard bunch, which appeared in the right iliac region, to promote absorption. This bunch disappeared quite slowly, and it was a number of weeks before the tenderness, which followed it, was gone. During my convalescence I had repeated attacks of pain, resembling colic, but have never had any since, nor has there ever seemed to be any obstruction or difficulty in the bowels since that time, although it took me more than a year to recover my strength. Previous to your seeing me the action of the bowels was regular."

This case differs from all others I have seen in its violent acute symptoms; it caused me to fear general peritonitis and a fatal result. The relief following the bleeding and subsequent purging, removed my fears. But, though its violence was overcome, the disease continued for a long time. Colics occurred, as Dr. H—— has stated; and the tumor remained always somewhat tender, and at times painful. The suffering was increased by food, if taken in more than the most moderate quantity, even when the appetite was sufficient and the whole disease much abated. Fruit and acescent articles were especially hurtful to him. His

feelings led him to a constant desire for full purgatives. As in other cases of the kind, the relief from them was decided, though not of long duration; and the discharges were always more copious than could have been expected, from the quantity of food taken. I do not remember any disease in which I have noticed this peculiarity so strongly marked, except organic affections of the liver.

Since this letter was written a friend has very kindly handed me two cases, which he observed during the last year, and which appear to be of the same description as the foregoing. The language in which he describes the cases differs from mine, as any two men may differ in relating the same thing. I had had a conversation with him on the subject, and that led him to take special note of these cases.

Two cases observed by Francis Minot, M. D.

"Pain in the abdomen, with active febrile disturbance. Relief after leeches and purgatives. Tumor in the ilio-cœcal region, remaining after convalescence.

"A little girl, aged eleven years, who had generally enjoyed good health, became ill on Sunday, October the eighth, 1854, without known cause. She felt chilly, lost her appetite, and was inclined to lie on the sofa all day. She went to school the two following days,

though not feeling well. On the tenth she had great pain in the abdomen, accompanied by vomiting, and followed by an evacuation of the bowels, the first since the seventh, though they had previously been perfectly regular.

"I found her on the tenth in bed. The face was flushed, pulse one hundred and ten, tongue slightly coated. She complained of severe pain in the abdomen, referred to the right side, and occurring in paroxysms about once an hour, leaving her comparatively free in the intervals. She could lie only on her back; the least motion, and even drawing a long breath, also causing pain. The abdomen was moderately full and resonant. On the right side it was very sensitive to pressure, the tenderness being excessive in the iliac region. A cathartic of calomel and jalap was ordered. Before it operated the patient had a sharp rigor, followed by heat and perspiration. After the enema she had a large solid dejection. She derived great comfort from a fomentation of spongiopiline, and got some sleep after taking opiates.

"On the twelfth her general condition was about the same. She lay with her legs drawn up, and supported by pillows, the slightest motion causing pain. The face was pale and expressive of much suffering, but not anxious. Skin of natural temperature; tongue

covered with a thin, brownish, pasty coat; breath foul; pulse one hundred and twelve, rather hard; respiration twenty, easy; thirst, headache. The abdomen was extremely tender throughout the right side, but mostly so in front of the anterior superior spine of the ilium. Considerable fulness above and in front of the same point was evident to the eye. Four leeches were applied to the seat of pain, immediately after which there was great relief to the pain. In the evening she was able to move her limbs a little.

"On the thirteenth I found a smooth round tumor, feeling like an egg, just in front of the spine of the ilium. On account of its tenderness, it could not be freely examined. In the course of the day she had a very copious spontaneous dejection, the first part of which consisted of hard, dry lumps, the remainder being soft. She also passed much wind. After this, the general condition was much improved. The pulse fell from one hundred and six to ninety. The tenderness, except over the tumor, was greatly diminished.

"The next day I was able to examine the tumor with more exactness, and made the following record: 'Its centre appears to be two inches from the ilium, on the right side, on a line drawn through the two superior spinous processes. It is globular, and smooth.

Its limits cannot be exactly felt, as the examination gives considerable pain.' The patient had two abundant dejections, after medicine, in the course of the day, and was altogether better in the evening.

"Her improvement was uninterrupted, though slow. She could not dispense with the pillow under the right thigh before the sixteenth, nor could she lie on the right side, though she was able to sit up in bed. On the fifteenth the tumor is noted as being 'about two inches long by one broad.'

"On the twentieth I recorded as follows: — 'She has been well since the last visit (seventeenth), and has not been confined to the house. The tumor is felt deep beneath the surface, in the right iliac region. It is hard and round, feeling like a horse-chestnut, and of about the same size, almost entirely free from tenderness.' She recovered perfectly, but I cannot say whether the tumor ultimately disappeared."

"Pain and tenderness, with a deep-seated tumor in the ilio-cæcal region, with slight febrile symptoms. Convalescence in four days.

"A married woman, aged about forty, was confined for the eighth time on the 21st July, 1854. Nothing unusual occurred during the labor or convalescence. During the night of the third and fourth September she

was attacked with severe pain in the abdomen, which was increased when she lay on the left side. No cause could be ascribed for this attack, unless too much exertion in lifting her children.

"On the morning of the fourth she was in bed, pulse ninety-six; tongue nearly clean; skin of natural temperature; no headache, nor pain in the back or limbs; no chill; had had no dejection for three days, except a slight one yesterday. Decubitus dorsal. Every movement of the body was painful, and she could not lie on the right side. Abdomen moderately tympanitic, everywhere soft, not tender, except in the neighborhood of the spine of the ilium, on the right side, where it was extremely tender for a space four inches square. A smooth globular tumor was felt in the same place. It was a few inches in diameter, lay very deep beneath the surface, and was very sensitive to the touch. In the course of the day the pulse rose to one hundred and twenty. (Six leeches to seat of pain. Castor oil, followed by enema.)

"September 5th. — The patient experienced great relief after the application of the leeches. She had four dejections. Is now free from pain, and feels much better. Pulse eighty-eight, tongue moist, some appetite, no thirst. The tenderness of the abdomen

has much diminished, but the tumor is with difficulty felt, on account of its depth.

"September 7th. — Feels quite well, and free from pain. Is still in bed. Bowels free. Tumor cannot be distinctly felt.

"September 8th. — Sitting up. Free from pain and tenderness."

The cases, which I have related, differ from each other in their severity and duration, and in many important details. If I could recall all I have seen this would be more fully exemplified. I have not seen one case of the disease which has proved fatal; so that no examination *post mortem* has enlightened me upon its seat and particular characteristics.

What, now, are the symptoms common to these cases and which may be regarded as essential to this disease? They are pain in the *right iliac quarter*, but not confined to this, for it often passes beyond the limits of this quarter, particularly upward; and a tumor, varying in size, so deep-seated in the abdomen as not to be felt without some direct pressure on the part, more or less tender, sometimes very tender. This tumor is to be felt near the outer edge of the right rectus muscle of the abdomen, where this is crossed by a line drawn horizontally from the

anterior superior spinous process of the right ilium. It must not be understood that the centre of the tumor is to be found exactly under the angle formed by the lines above mentioned, only that some part of the tumor lies under it. This may not be mathematically correct; but I believe that the indurated body will always be found, when the fingers are pressed down as near to this angle, as one would come in an examination of this sort. Constitutional affections attend this disease in some stage of it, but they vary much in severity; and so also does its duration vary. I may add, as a characteristic of this painful tumor near the cœcum, that purgatives give so much relief that the patient is always anxious to have them. Perhaps it may be true of all diseases, in which the cœcum and colon are concerned, that the patient has a strong desire for something to relieve those intestines from the fæcal matter detained in them.

I have mentioned the cœcum as an organ affected in this disease, but I have not shown that this is true. We must now consider what is the organ affected; in which of its coats, or tissues, the affection is seated; and what is the nature of the affection. I cannot answer these questions with an assurance of being right. I have supposed that the cœcum was the organ affected, that the disease was seated on or in its

serous coat, and that this disease was an inflammation. There are, however, great objections to this supposition; it is upheld mostly on the ground that there are greater objections to any other. In talking with my medical friends, none more satisfactory has been suggested to me. If there were absorbent glands, lacteal or lymphatic, in the situation of the disease, the explanation would be easy.

I think it will be readily admitted that, in the cases I have related, the tumor is formed by the process of inflammation. The part is painful and tender; often very tender. Unless in the case of Mr. B., I have never seen the disease at its very beginning; and if that was the same as the others, it subsided so soon as not to enlighten us upon its nature. In all the others the tumor has enlarged and diminished gradually, as might happen to a phlegmon not passing on to suppuration. It does not, however, come within our notions of a phlegmon, if, as I believe, it never terminates in suppuration. The tumor has never subsided suddenly, so as to justify a suspicion that it has discharged pus into the intestines, or elsewhere. Nor have I ever found it to subside, or to be diminished suddenly, after a purgative, as might happen if a fæcal mass had been confined in the cœcum. Indeed, the feeling of the tumor does not resemble that of an

accumulation of fæces, such as I have sometimes met with. It accords better, though not exactly, with an enlarged lymphatic gland. It might be supposed that it occupies, or extends through, all the coats of the cœcum. But then, it would be such an obstacle to any contraction of that organ, as to cause great pain at the time; so that the patient would get to have a dread of cathartics, even though they might be followed by relief. But, as I have said, the patient is always, or very often, anxious for cathartics.

Can there be a suppurative process on the mucous membrane of the cœcum, and is the tumor, in any way, a secondary affection? I have seen such a disease of the cœcum, and had no hesitation in deciding what it was. The case proved fatal, and fully confirmed my diagnosis. The symptoms were very different from those I have stated as belonging to this *painful tumor*.

MM. Dupuytren and Grisolles, of Paris, and, I believe, some other French writers, have given an account of phlegmon and abscess in the *iliac fossæ*. A slight knowledge of these diseases, especially the name employed by Grisolles (Tumeurs phlegmoneuses des fosses iliaques), might lead one to suppose the affections to be the same; but it is not so. I am acquainted with those phlegmons, most common in

the puerperal state, but seen in other states. I have been consulted about one, in a man, since I have been engaged in writing these letters. These phlegmons almost always suppurate, as is particularly shown by M. Grisolles, and as my limited experience confirms. I first became acquainted with this disease in examining a woman *post mortem* at our almshouse, more than fifty years ago. That case was so remarkable in one point, that I will diverge from my path to put it on record. The abscess contained more than a gill of pus. There was involved in it, lying in this bed of pus, a portion of the external iliac vein. Where this vein passed through the parietes of the abscess, at both its upper and lower part, the vessel was clogged up by coagulated lymph, showing that the adhesive inflammation (in Mr. Hunter's language) had taken place within the vein, as it had in the surrounding cellular membrane. But, further, between these two portions of lymph suppuration had taken place *within the vein.* The pus in the vein was somewhat colored by blood, but not so much as to leave any doubt as to its character. The case had been a slow one probably. The subject of it was an abandoned woman, who had been brought to the house in an exhausted state. You observe that the peculiarity of the case was that the vein was insulated in the cavity of the abscess,

and had gone through the same processes as the surrounding parts, without having had any opening, by which it had communicated with them. On a young admirer of John Hunter, as I was, this case, illustrating his description of the different processes of inflammation so distinctly, made an impression, which has not been effaced by time. I am sure that the essential circumstances are correctly stated, though I have done it from memory. I believe I have a a record of them, but cannot now put my hands on it.

I have stated more than once that suppuration has not occurred in any case of this painful tumor near the cœcum. On saying this lately to an ingenious and learned friend, to whom I had been speaking of this disease, he asked the following question: "May not your disease have been tuphlo-enteritis; and may it not be that in the cases, which did not terminate fatally, the nature of the affection was not discovered?" This is a fair question, and I leave it to others to answer it from observation, if an opportunity occurs. I replied to him that since the first case I saw of tuphlo-enteritis, I have not seen one, which has been proved to be so, that I did not recognize at once; that this disease occurs mostly in children, though not in them solely; that its symptoms are usually, within

the first few days, much more violent than those in my cases at so early a period; that vomiting is, I believe, among the early and obstinate symptoms in tuphlo-enteritis, while in my cases it is much less remarkable, though it occurred in some of them. To this I should add that the little tumor felt in tuphlo-enteritis is, I think, to be found somewhat lower, and not so near to the median line as the tumor I have described. I submit all this for consideration; with the hope that others will be able to explain the disease, I have thus brought to notice, more perfectly than I can do.

In describing cases of the disease under consideration I have stated the remedies employed more or less fully. I will bring them into one view, premising that they must be used with greater or less freedom, according to the violence of the disease. The indication is to bring about resolution in the inflamed part. It is very probable that the final result would be the same without medical aid, but there are two reasons for adopting active treatment. First, there is usually so much pain and distress when the physician is called, that present relief is a great object. This relief treatment will afford. Second, in the instances which I have seen, the disease has proved more severe and more lasting, the longer it has con-

tinued before the appropriate treatment has been adopted. This is an approximation to the truth, if not a perfectly correct statement.

When colic, or great pain in the bowels, exists at the commencement of the treatment, opium should be given, in some form, until it gives ease. If, indeed, there be a hot skin, a frequent and hard pulse, and the patient be sufficiently vigorous, venesection should be the first remedy. In the case of Dr. H. the benefit of free bleeding was unquestionable. The depletion will probably, in all cases, diminish the pain and distress; and, after it, opium will act more kindly than before. Leeches should be applied where venesection is not admissible, or not required; in number from six to twenty, according to circumstances. If there be much pain the opiate should be used first. After the bleeding a purgative should be given. After bleeding the purgative will probably act more readily and more easily, as the loss of blood will, if I may so express it, liberate the intestine. On the following day a blister should be drawn over the seat of the tumor. This and the other remedies must, of course, be repeated, or not, according to circumstances.

Through the whole treatment rest should be enjoined, and the diet should be very moderate and simple, until the disease is evidently much lessened.

If the treatment is not begun early, exacerbations are very apt to occur. They must be guarded against as far as possible; and, if they take place, active measures should be adopted at once. In an old or severe case the tumor will remain for a time with some tenderness, after recovery has taken place in all other respects. In this state I think the external use of iodine may be useful. At least the tumor has gone off under this remedy sooner than I had anticipated, and the patient's mind has been kept easy, and no injury has ensued.

LETTER XIV.

ON CONSTIPATION OF THE BOWELS.

CONSTIPATION of the bowels is among the most common evils, as respects health, among the inhabitants of cities. It is occasioned in part by their diet, but probably much more by their sedentary habits. The same habits induce the same evil among persons living in the open country. The great extent of this evil is shown by the multitude of remedies for it; of quack remedies, the sale of which has enriched their proprietors. It is not strange that persons, uninformed on this subject, and experiencing daily the evils of constipation, should employ the pills and draughts advertised and puffed by their mercenary proprietors. Why should we speak with reproach of these persons? The efficient elements in most of their patent medicines are, I suppose, the same which are employed by regular physicians. Most of them are valuable articles, and some are exceedingly well adapted to the purpose in view. The objections to

them are that they are used without discrimination as to the cases, for which they are respectively best fitted; and, what is much worse, the sufferers are induced to take medicine instead of relying on diet and regimen, the more natural modes of relief.

The tendency to constipation is constitutional in some persons. Whether it is derived from some peculiarity of structure, or whether connected with some modification of the vital powers, I am not prepared to say. There are men whose external appearance is modified by this deep trouble, or at least I fancy so. You may meet such a one daily in the street, moving with a regular but rather slow gait, thin, bony, looking down, his body slightly bent forward, having an anxious countenance, with an expression as if worn by a hidden grief; with a skin dry and somewhat coarse or rough, and a dull complexion, rarely showing any red color. This melancholy-looking man attends to business, and very probably is growing rich. In conversation you find him more cheerful than you had anticipated, and quite bright at times. But you discover that he is limited in all his conduct, not willing to eat, drink, or sleep, out of his own house; and reminding you, perhaps, of a horse tethered out. You may help such a man, but you cannot make him anew.

What, then, shall we say to one habitually constipated in the bowels? We must make him acquainted with the causes which have produced the evil, and with the hygienic rules adapted to overcome it. First, a laxative diet should be directed. Among the articles adapted to this purpose, coarse bread, bread made from meal, and not from the fine flour of the grain, may, perhaps, be called the principal. In the fine flour we have the nutritious portion of the seeds, which has been procured by sifting it from the meal. In this case the hull is left on the sieve. For nourishment alone this hull is of very little value; but far otherwise when we take into view its effect on the bowels. The more coarse the meal the better for the purpose now in view. Indeed, it is found better to employ the wheat simply cracked. This cannot be made into bread, but if soaked from two to four hours in warm water, so as to make a species of mush, the effect of this preparation on the bowels is very great. It is, however, an article which some stomachs do not well bear.

I cannot pass by my notice of this article without stating the obligations our community is under to my friend, Dr. John C. Warren. We had been in the habit of employing rye meal, and sometimes Indian meal, as laxative articles, and had thought that rye

had some peculiar property of this kind. It was known that wheat was a better grain for nutriment than the rye or maize; but wheat being used, by us in New England, only in the state of fine flour, it was regarded as a constipating article. Many years ago Dr. Warren recommended the bread made from the wheat meal, sweetened with molasses. This bread got the name of dyspepsy bread; a name given to it, I believe, by the bakers. It was introduced not because it was adapted to pure dyspepsy, but as a remedy for habitual constipation. It is true that, when this bread overcame the latter complaint, dyspepsy in certain cases was removed, or alleviated, showing that it was caused by the constipation. Some years after this, the same distinguished gentleman introduced the use of groats, or cracked wheat, of which I have spoken above.

The advantage of having bread of a laxative character is, that this article is in such constant use. It enters with most persons into every meal, and often in a large proportion to other articles.

There is another form in which the meal, or coarse flour, may be employed with advantage, especially by those who cannot afford to use expensive fruits. This is *mush*, or hasty-pudding, made from any of the grains, the rye perhaps being the best. Butter may

be used with this pudding, and molasses should be added as increasing its value.

White mustard-seed was greatly in vogue here, some thirty years ago, to regulate the bowels, and thereby to do many other good things. It was recommended by Cullen, I think, but was revived by some accident at the time I refer to. It was taken in doses of from one to eight teaspoonfuls a day. In many instances it acted very kindly, but it too often failed, or produced some inconveniences, and it fell into disrepute. It should not, however, be quite forgotten.

The articles we call fruits are most of them very useful and very agreeable remedies for the difficulty we have in view. Generally speaking, those which are succulent and tender are to be preferred; and those which are sweet are, perhaps, rather better than such as are acid. To this last remark there are some exceptions. Beginning with the berries, which we find in the summer, in our climate, we go on to the pears and apples in the autumn. As these, the apples especially, last through the winter and spring, we get a supply of fruit for most of the year. Of the pears, those which are hard are not very valuable, if they are at all so. The apple may be used without cooking, by many persons; but they are better for all, especially for those with tender stomachs, after being

cooked. They should be cooked in their skins, that there may be the least possible loss of their juices. The good pears are too tender to make this necessary, but they are not injured by cookery. One advantage of cooking these fruits is, that the stomach will bear more of them, than when in the crude state. For the purpose we have in view, the sweet apples are rather better than others. It is remarkable, however, that some dyspeptics can bear a sharp acid apple better than a sweet one. The same persons will bear ripe currants better than the sweet berries. This will not seem so strange, if you bring to mind that the acidity of the stomach, which troubles dyspeptics, is that which arises from fermentation of the food. It may be produced by acids taken into the stomach, especially those of unripe fruits; but not so readily by the acid of a mature fruit, such as currants are in the last week of July and in August. Looking for fruits at the different seasons of the year, I have provided for all except the last half of the spring, and the first month of the summer. But all persons cannot command the delicate fruits. In the absence of these, oranges may be resorted to. These are found among us at all seasons; but the best, the most mature, are to be found in the spring. We have also the resource of the dried foreign fruits, at all seasons. The most

valuable of these are figs and prunes. The latter are made better by steaming.

I think the best time for the use of fruit is at breakfast, though it may be taken at dinner if proper room is allowed for it. The most agreeable time for oranges is before sitting down at the breakfast-table. Two of them taken at this time are all-sufficient in many instances. I must not omit the rhubarb plant, which resembles the acid fruits. This may be used in May, and continued till midsummer. It should be stewed with sugar, and taken at breakfast or dinner. Though this article is called the pie-plant, let it be noted that the pie-crust is not essential to it; and to those of tender stomachs it is injurious.

Thirdly. Vegetable food generally is more laxative than animal food. This is particularly true of the tender and succulent vegetables. There are two articles, which come under the name of vegetables at our tables, which are especially useful, and which in reality are fruits. These are the squash, the winter squash especially, and the tomato.

Fourthly. To the foregoing I must add that oleaginous and fatty articles have a laxative effect. The only vegetable oil we are accustomed to is that from the olive, much more used in other lands than in ours, and certainly of great value. We get a vegetable oil

in the nuts, especially in that called the oil or butter nut. To those, who have not access to other laxative food, this nut may be found very useful. Animal fat is serviceable in the same way, and pork is the best article of this kind, on account of its fat. I know that this is contemned, and even thought injurious, by many persons who are not Jews. To some stomachs it certainly is offensive, even though it be of the best quality. But to many persons our New England corn-fed pork is easy of digestion, highly agreeable, and, as the phrase is, very *wholesome*. That is the term which, in my early days, many delicate persons employed, when they meant that the article was good for the bowels. Let me here mention another article, on which the polite are apt to frown, and which we can hardly recommend to young ladies; this is the onion, of which I am reminded by mentioning pork. It is quite valuable to those who cannot bear the acescent vegetables. There is still another useful vegetable, scarcely admitted on genteel tables, or not without some apology. I refer to beans. The objection to them is that they often cause flatulence. For some persons this is a sufficient objection, in whatever way the article is prepared. But most persons can bear beans very well if they be well cooked. They should be boiled so as to be thoroughly tender, and

then baked slowly, but not so as to be quite dry. Some black pepper may be added to them. Pea-soup is still another dish to be had in respectful remembrance. Both the peas and the beans are *wholesome* to some, though not to all persons.

I have mentioned a variety of articles for the purpose in view, and it is desirable to have a variety to choose from. I have, however, omitted some which might be mentioned. Some are very useful to one person, and are not at all so to another. People get tired if confined too much to the same article, and want a variety to suit the palate. Lastly, one may be procured when others cannot.

It is not to be understood that persons of constipated habits should be confined to the articles pointed out above. On the contrary, these should be taken with others, more or less, as the case may require at different periods. But none of them are to be relied on as medicines for a temporary purpose. Generally, their good effects do not show themselves until they have been taken for three or four days in succession.

I have treated of the diet fitted to obviate habitual costiveness. Next to this should be placed bodily exercise. In many instances this is all that is wanted. Care in diet is seldom sufficient without it. I say to the sufferer under constipation, "Get exercise any

how, in any mode; but, if you can, let it be on your feet. Walk two hours every day, and as many hours as you can on a holiday. It is best to walk with an object, if possible. It is best, also, to get one good walk soon after breakfast; but walk in the evening if you cannot get leisure at other parts of the day." Walking is better than riding or driving for the purpose now in view; but circumstances sometimes forbid this, such as lameness of one kind or another. Then, if possible, let the patient get on horseback. In all this I have reference to *citizens*, the inhabitants of cities, or of large and busy towns. A resident in the country, who does not get his living by labor in the open air, more than half the year may resort to gardening. This is the most luxurious exercise one can have, if he has any taste for the pursuit. There is one other mode of exercise, which may be enjoyed wherever there is water at hand. This is rowing in a boat. Though the oarsman is not on his feet, he brings all parts of the body into use. This exercise seems to belong to our sex, but it may be allowed to the other, when they are in secluded places; and some of them know how to excel in this as they do in most handiworks which they undertake.

Many persons learn for themselves the influence of habit in keeping up the regular action of the bowels;

but they do not always learn this before the middle of life. The morning, soon after breakfast, in the majority of cases, is found the most convenient time for this purpose; and almost any one, by a little care, may avail himself of the readiness of the human body to be influenced by habit, so as to fix on such a part of the day as he pleases. Persons who are much troubled by hemorrhoids, or by *prolapsus ani*, will find it best to get their evacuations just before bed-time. The advantage is that such persons derive benefit from assuming the horizontal position for a time after an alvine dejection. I must give a caution connected with this subject. One should not allow himself to strain, nor to hurry himself from a regard to habit, nor for any other reason. In this way he may induce hemorrhoids, or prolapsus. These are great evils, of which few persons are aware except those who have suffered them.

It is best to get a dejection from the bowels once a day. There are some who get two a day, and feel the better for it; but they are rare exceptions. One should strive to get one by all reasonable means; but persons of infirm health are sometimes unduly anxious on the subject. They are made fidgety and really unhappy if they miss a day. I believe it conduces to good-humor to be regular on this point; but I could

bring good evidence to show that a man may have a very good share of health, and a great abundance of generous good-humor, though he should relieve the bowels only once in four days. Such a case is singular, no doubt, but there are many instances of persons who have very comfortable health, while they get relief only once in forty-eight hours. Nature does not lay down universal rules on all points.

The great object of maintaining sufficient evacuations is not attained by all men, though they follow the directions above given with exactness. This sometimes arises from a constitutional peculiarity, but for the most part it is produced by a long neglect of the hygienic laws. When this neglect has arisen from wilfulness, and not from ignorance, you may say a man deserves the punishment which nature inflicts upon him. If this be true, it is not the business of the physician to leave him to his fate. He must try to alleviate the evils, however induced, and gently, but firmly, to persuade his patient to return, as far as he can, to the right path.

What now shall we do to the patient who cannot overcome the habit of constipation by such means as have been pointed out; by diet and regimen? The reply is, in general terms, that, when we are obliged to resort to art, we must imitate nature as nearly as

we can. By imitating nature in this case, I mean that we should strive to bring about the end in the quiet and easy manner in which nature does it. Further, as men in health do not effect the object in view perfectly, and equally, every day, we must be satisfied if, by art, we can succeed pretty well on the whole, though not every day. By trying to keep up to the mark, without failure, we shall be liable often to overstep it.

The simplest and safest of remedies for habitual costiveness, in a large proportion of instances, is the injection into the rectum of cold water, to the amount of one or two gills. This remedy may be used every day, with ordinary care, for many years, without any injury. It is successful in the cases where the fæcal mass is brought to the rectum and delayed there. If the failure takes place above, so that the fæces are not brought down, this remedy will not answer the purpose. It is true that, in certain extraordinary cases of constipation, benefit has been derived from injecting three or four pints of water. In this way the fluid may be made to pass up the colon, and, probably, even to the cœcum. But that is not a method to be adopted for ordinary cases, and it is of these I am treating.

In the cases, for which the daily or frequent use of

injections can be adopted with success, it is proper to give instructions for the convenient management of the process. Few men will adhere to this remedy, if they must be put to great trouble every time they use it. The first question is, what instrument shall be used? I think it very certain that the best instrument, to be used on one's self, is a metallic syringe with a curved pipe. This should be kept with pipe screwed on to the cylinder, so as to be ready for use without delay. After it has been used, it requires only to be made clean externally. Plain water only being used, it does not require any care for the internal part, except to throw out any remnant of the water which may be in it. Such instruments are to be found among us, holding nominally six ounces, but really holding about four ounces. They are better than larger ones, though they must sometimes be used twice, because they are as large as it is convenient to handle. If you would have the best, get a philosophical instrument-maker to supply you a brass syringe furnished with a metallic piston. The pipe should be silvered over. There are other instruments, which may appear to you better at first sight, but they do not wear so well. This is true of all which have flexible tubes, or India rubber in any part of them. They get out of order very often; they require more

care each time they are used, and the use of them is not attended with the same facility. For a sick person, lying in bed, Mawe's instrument, or one on the same principle, is better than the syringe above described. The French instrument, which goes off upon pressing a spring, is very convenient in some respects. It is of comparatively little moment what instrument is employed, if there be a valet de chambre, or a waiting maid to take care of it. Not so when one takes the whole matter into his own hands. I will not omit one hint more, although one does not want to dwell too long on the affairs now under consideration. This is, that it is best to pass the instrument sideways under the body, sitting in a water-closet, or on the appropriate cabinet, and then rising up to bring the handle of the syringe against the wall of the apartment; then, by carrying the body gently toward the wall, the piston may be pressed firmly and yet gently into the cylinder.

The treatment just stated is insufficient for those cases, in which the fæces are not brought down to the rectum. Besides, there are many persons who cannot succeed in using injections, and more who will not submit to the trouble of this simple and safe remedy. We must then administer medicine, and in doing this our object should be to employ the mildest and

safest article which will suffice. If there were one such article, which would prove the best for every case, the matter could be easily settled. This is what is pretended by every quack, who advertises his own wonderful discovery of a pill, or powder, for this purpose. And the patient, who has found an article, which suits himself, after having tried a dozen, is very apt to recommend it to his friends as fitted for all men. We doctors, like the tailors, find that coats of the same size, and proportions, and fashion, will not suit every individual. My own course is to study the circumstances of each case, and endeavor to anticipate which among the milder cathartics is most likely to be *suitable* and *efficient*. I say suitable, for the article must be one, which will give the least inconvenience as to the taking it, and in its effects on the stomach and bowels. I say efficient, for we want an article which shall be tolerably sure to act with regularity as to time, without over-acting. Persons who might be relieved by injections, but who will not use them, will probably find the saline medicines, in small doses, but largely diluted, the most suitable for them. Such are many of the natural mineral waters, among which the Congress water from our Saratoga is as extensively famed, and as justly, as any. In most instances a pint of this water, taken before breakfast,

is sufficient. This may be divided into two, or more portions. For some persons a quart is required; but here we must watch lest there be some harm from so large a potation. It is true that there is scarcely any liquid of which so much can be taken with impunity as these natural waters, when containing a due quantity of carbonic acid. Very similar in their effects to these waters are the articles known as Seidlitz and Rochelle powders. The most convenient of these articles is sold under the name of Butler's tasteless Seidlitz powders. A common soda powder is enough for many persons. I ought to add that some succeed very well with a cheaper, though less agreeable article. This is the sulphate of magnesia, or any similar neutral salt having a laxative power, taken in the dose of a teaspoonful, but dissolved in half a pint of water. This may be made less disagreeable by adding sugar and peppermint-water, ginger, or some other aromatic. The morning, before breakfast, is the best time for using any of the articles above named. The breakfast may be taken shortly afterwards without any harm.

From various causes, perhaps, none of these saline articles suit some individuals. For such we must furnish a medicine of greater efficiency, and given in a smaller compass. These are required especially for

those whose bowels are sluggish; in whom, probably, there is a great delay of the fæces in the colon. You will find some delicate and feeble women in this class. In them it would seem as if there were a real want of muscular power in the cœcum and colon; the more when there is not any aid from bodily exercise. But very many, who require similar aid, are men of strong constitutions, who eat and drink freely, and who are fitted for hard work, but do not *indulge themselves* in it. In these cases I sometimes suspect that one great process of the large intestines is carried too far. The absorbents take up too much of the liquid contained in the mass brought down through the ileum.

Among the very convenient and efficient medicines for persons of this class is aloes. It is the substantial part of Anderson's pills, which have had the most extensive celebrity among the English and their descendants for three or four generations, and, I believe, it enters largely into many other patent articles of the same character. It is ordered as a shop medicine in the regular pharmacopœias, alone, or in combination, in the form of pills; and it is the essential part of that grand old domestic tincture known under the name of *Elixir Proprietatis*. So far it would seem that aloes would meet all one's wishes; but like most of the good things on earth, it has its

defects. I do not refer to the pain it sometimes causes in passing the bowels; for, though it has this fault, the same is true in a greater degree of many other articles of its kind. What I do refer to is its tendency to produce hæmorrhoids. This is true of some other similar articles, but not to the same extent. It is a reason for using this medicine watchfully, and for forbidding it to persons who have hæmorrhoids, or any other disease about the rectum. Rhubarb is another article employed with great satisfaction by many persons. Some men chew it daily, and some when specially needed; and for those, who do not object to the taste, this is a good mode of using the article. The nicest pieces are of course selected, and usually the Turkey rhubarb is preferred for this purpose. The medicine may, however, be made into pills, or into an infusion, and be combined with some aromatic article. The tincture is valued highly by some individuals, but it is objectionable because most persons require of it a larger quantity than it is wise to administer daily, or frequently, of a spirituous article. Rhubarb more often causes griping than aloes. I might go on to mention many other well-known articles for the purpose in view, such as scammony, colocynth, sulphur, magnesia, etc., etc. Sulphur and magnesia are comparatively bulky articles.

The sulphur, however, is now and then found to answer very well, especially for persons liable to hemorrhoids. The magnesia is a favorite with many persons subject to acidity of stomach. It is not, however, an article to be commended for frequent use. It is sometimes found to accumulate in the intestines. But an evil much more common is that it is slow in operation, often keeping up an uneasiness for many hours, and causing many small dejections, instead of one sufficient one.

It has been found that a combination of moderate cathartics will act more kindly than any one alone; and sometimes a powerful article may enter into the mixture, in an extremely small dose, without injury, and, perhaps, with advantage. It is a convenience of such an addition that we can get a sufficient dose in a small compass. Gamboge has been employed in this way. I am not, however, disposed to favor this article, as it sometimes proves treacherous; that is, it will act with undue violence. Strychnia is employed in the same way at the present day, and with care it may be employed with advantage in cases hard to manage. But it should be given in a very small dose, not more than one twelfth part of a grain in a dose containing other articles. After trial the dose of strychnia may be increased. When it is used two

precautions are necessary; one, that the medicine should be prepared very faithfully, by a responsible person, to insure the equal distribution of the strychnia through the mass into which it enters; the other, that the patient should be apprised of the properties of the article, that he may not at any time take more than the dose prescribed.

We should rarely employ such heroic medicines. There are many safer combinations than those into which these articles enter. There is one in our pharmacopœia, which is quite equal to our common needs, when faithfully prepared. This is the compound extract of colocynth. Though there is some aloes in this article, it is very rarely hurtful. Indeed, I have never been satisfied that this preparation has brought on hemorrhoids in any case. This may receive, in combination, any other medicine of small bulk which the occasion calls for. There is one, often prescribed for rheumatism, which acts so pleasantly on the bowels that I think it would be frequently employed, if it could be brought into a small bulk. This is the resin of guaiacum, of which the dose is one drachm. It may now and then be convenient to remember this. It should not be taken in the form of tincture, as the requisite dose would contain too much alcohol.

I have been treating of habitual constipation. We

meet, occasionally, instances of very great and obstinate constipation, which are to be regarded very differently. In some of these we see good reason to suppose that the constipation depends on some organic or some mechanical difficulty; or on inflammation in some part of the intestines. In all cases of peculiar constipation, we must bear in mind that such obstacles may exist; and, if so, that our cathartics would not only fail to do good, but might do harm. We must, therefore, proceed with great caution and circumspection, as the seaman does when he fears sunken rocks. We should examine carefully in the usual seats of hernia. If there be nothing found in them, we should ascertain whether there is any tender spot in the abdomen upon slight or deep pressure; whether there is any tumor or indurated organ in that cavity; and whether there are such constitutional symptoms as attend inflammation. If there be obstinate vomiting, our fears should be more awakened.

If we find no evidence of such local difficulties as have been referred to, we should follow the plain indication to purge the bowels. We should try the safe remedies; that is, such as will not do harm if they are retained. I would not, therefore, begin with calomel, unless when the stomach is so irritable that it is not likely to retain other medicines. In such a

case one or two doses of calomel may determine the current downward, and leave the way open for more active medicines. You may be surprised that I say more active medicines; but, in truth, calomel is slow in its operation; it starts the mass, but does not carry it through; so that I often compare it to the scraper used by the chimney-sweep, which requires a brush after it to bring away the soot. Besides calomel, other medicines in small bulk are best, when the stomach is irritable. The compound extract of colocynth is a very good article. But after these, or at first, if the stomach is quiet, castor oil is the most appropriate. This medicine excites secretions sufficient to soften the fæces, while it promotes the peristaltic motion, so as to carry forward any mass which may have accumulated. The neutral salts may answer the purpose; but it appears to me that, while they cause copious watery secretions, they do not so act on the muscular coat as to insure the removal of the solid matter. Oftentimes in such cases there is a difficulty in keeping the medicines upon the stomach. Then we may resort to preparations of senna or jalap, or both together, which should be given in liquid form, and in small doses, frequently repeated. There is an article, which I introduced into use at our hospital, well known among us, under the name of the *com-*

pound infusion of senna. Besides the senna, it has jalap, supertartrate of potass, and manna, in its composition; and with these the compound tincture of senna. Where it is desirable to have the stimulus of the tincture, this preparation may be used with advantage; but, otherwise, there is a more modern preparation, which is better. This is *the fluid extract of senna.* One advantage of this extract is, that in the same dose it is about twice as powerful as the compound infusion above mentioned; a great advantage when you have to do with an irritable stomach. Other articles will always suggest themselves, when there are objections to the above named. In these cases we should also avail ourselves of injections into the rectum, which should be large in quantity, and more or less stimulant, as circumstances may indicate. I shall mention one which I hold in high estimation in all obstinate cases; this is a mixture of oil and water, with soap to make the oil miscible with the water, and to break it up into small globules, without so much soap as to make the oil entirely disappear. In one of these obstinate cases I should use the following: — take a heaping tablespoonful of soft soap, half a pint of olive oil, and a pint and a half of warm water, and mix them thoroughly; the whole of this should be used at once. It may be necessary to repeat both

the purgative medicines and the enemata. There are cases, mostly in persons who have been much neglected, where you find a great mass of fæces impacted in the rectum. In these it is best to resort to mechanical means, using something like a scoop to break up and dig out the mass.

Where there is reason to suppose that there is a mechanical obstacle, analogous to hernia, or where an inflamed organ constitutes the obstacle, the treatment must be varied to meet the circumstances. To go into all the possible circumstances would lead me too far. I will say, however, that where there is reason even to suspect an inflammation in the intestines, bloodletting at an early stage is the most important remedy. It serves to relieve the distress and to liberate the bowel; for then it can yield to the effect of a cathartic. Let me add further, that in blind cases, a masterly inactivity should be adopted. This requires more true courage than the exhibition of the most heroic remedies.

I must make a small addition to this long letter, in respect to diseases of the rectum. I have reference to hemorrhoids, prolapsus ani, and the fissure, or crevasse of the rectum. What I wish to say in regard to these is, that the greatest and most permanent relief may often be obtained by an operation.

As I have not practised surgery for nearly half a century, I shall not be suspected of wishing to exalt my own art. I have, however, called in the aid of a skilful surgeon in many such cases; a number of these have been ladies, who have subsequently expressed great gratitude to me in consequence of the relief they have obtained. It is in bad cases of piles, external or internal, most especially when bleeding, that I have found surgery thus useful. In milder cases other well-known remedies succeed, into the consideration of which I shall not enter. In all cases of prolapsus and of fissure I believe the sooner an operation is performed the better. If the prolapse is slight, the slighter will be the operation, and with proper subsequent care there will be an end of the trouble. The subsequent care has reference to the habitual costiveness, to which the tendency is increased by the operation. Diet will often overcome this after a few weeks or months; for, at first, some gentle laxative medicine is required. But, at the worst, a daily injection of cold water may become necessary. After a little habit this is found not a very troublesome affair, and the relief from the daily annoyance of the disease is beyond all price.

LETTER XV.

ON BILIOUS DISEASES, BILIARY AND URINARY CALCULI, AND IRRITABLE BLADDER.

In this letter I have a little to offer on several different topics, but only a little. You hear every day of bilious diseases, and diseases of the liver. Mesmerizers, and people of that sort, accuse the liver very frequently. I have often said that the liver is like the greatest rogue in the village, who is accused, upon suspicion, wherever any mischief has been done. Such an one has so bad a reputation, that it is not thought a libel if you speak ill of him. I may almost say that there are some among the brethren, who hardly think of the liver but as an organ for the production of disease. When I began practice, some of my elder brethren, excellent men too, almost always referred an obscure chronic disease to the liver. They talked familiarly of old liver cases, without a definite notion of any particular disease. I believe that some of the mesmerizers talk of the liver as being rotten, or all

decayed; states of the organ which the morbid anatomists, who cannot see through the parietes of the abdomen, are not well acquainted with.

The term bilious is applied indiscriminately to diseases, in which much bile is discharged from the stomach or bowels, and to those, in which the bile is entirely wanting in the alvine discharges. In both cases, calomel and blue pill are regarded as the appropriate remedies. Now, the liver is an organ subsidiary to the stomach and intestines, just as the salivary glands are to the mouth. In the greatest proportion of cases, which are called bilious, the real disease is in the stomach or intestines; and by this the liver is provoked to pour out its secretion, just as the salivary glands are when any acrid matter is taken into the mouth, or when its mucous membrane is inflamed. In these cases calomel is often very useful; but it should not be given merely because there is too much bile, or too little. It is undoubtedly true that a disease in the liver itself may be attended by an increased secretion of bile, or more frequently by a deficiency of this secretion. Chronic diseases in the liver are not rare among us, though not very frequent; but acute diseases of the liver have very seldom occurred under my observation. I have known acute hepatitis sufficiently well marked. I have, also, sometimes

met with abscesses in the liver, the existence of which was not suspected during life. There is no doubt that hepatitis is much more common in warm climates, than with us; and this is so especially in Bengal. But even there the doctors are too ready to believe that "it is the liver," if there is any pain in the right side. A few years ago a young friend of mine was there with a pleurisy attended by effusion in the right thorax, and was treated unhesitatingly as having hepatitis. Not mending under the treatment, he went over land to England, and hurried home by a steamer. Here the true disease was discovered at once. This was not done by guessing, but by the use of the senses.

I have thought it useful to make these general remarks, although I do not design to go into the diseases of the liver generally. But I wish to make some observations on *jaundice*, as one of its most common diseases.

The name jaundice is sometimes loosely applied to cases where there is only a yellowness of the skin. In jaundice proper there is not only the golden color of the skin, but also high colored urine, staining the linen yellow, and an absence of bile in the fæces. This last is essential. These symptoms seem to show that there is an obstruction in the common bile duct.

I know that this is denied; and there may be cases in which the obstruction is not discovered after death. It is, however, clear, when these symptoms exist, that the bile does not flow into the intestines. The causes of the obstruction are very various, and we have not any certain means of distinguishing them during life. They are sometimes such as cannot be overcome. An organic disease at the right end of the pancreas may involve the common bile duct, and close it perfectly. Large calculi and other causes may do the same. But there are some causes of obstruction, which are removed by the spontaneous action of the parts. One of these is a gall-stone stopping the passage and at length finding its way into the duodenum. I have long suspected that another is a disease of the mucous membrane of the common duct in some part of its course, or at its mouth. It is very probable that this difficulty is combined with the calculus in some instances, and that when the vascular fulness of the mucous membrane has subsided, the calculus is allowed to pass. Though I entertained this opinion, it had never occurred to me to employ bleeding for relief, until led to it by accident. About twenty years ago I had a patient at the hospital, convalescent from typhoid fever, who was taken with pain in the region of the liver, and with other symptoms of inflammation,

not very severe; but with these there were the signs of icterus. On account of the inflammatory symptoms I applied leeches on the right hypochondrium. Within forty-eight hours the bile flowed through the intestines, and the symptoms of inflammation subsided. This did not prove that my opinion was correct, but it gave me a hint. Not long after, I employed the same remedy in a case of icterus, also at the hospital, and here, also, there was entire relief within forty-eight hours. From that time I have continued to use this remedy. I have tried it in cases at all periods of the disease, from the second day to the fifth week. Many of these cases have been seen in consultation. In three instances, and, I believe, only three, the relief has not followed this treatment, and yet the patient has subsequently recovered. In all the other cases, where it has failed, the disease has proved fatal. In most of them, examinations after death have shown some obstructions, which could not be overcome. Indeed, this has been true of all, in which examinations were allowed. I have not a record of my cases, but the instances in which leeches have been followed by relief cannot be less than twenty. I have failed to give immediate relief, to an adult, where I have used less than eight good leeches. But this has happened, I believe, only twice, and in those instances

a second leeching has been followed by relief. The relief has been shown by the appearance of bile in the fæces within forty-eight hours after the leeches. Now, I think it cannot be considered accidental that relief should follow within this space of time, when the remedy has been employed at such various periods of the disease. I do not ask any one to admit, and I am not sure myself, that this proves that the disease consists in an inflammation of the bile-duct; but certainly it is a good ground on which to employ the remedy, until something better is pointed out. I am aware that icterus goes off spontaneously in some cases, and probably it would have done so in many of mine; but not just at the periods when it did. It has sometimes been objected to this treatment that it is debilitating. I will take this occasion to say that I think debility, and that of a bad kind, is much oftener produced by powerful drugs, than by blood-letting of any kind.

Though I now feel almost hopeless when jaundice does not yield to the leeches, yet I do not say that nothing more should be tried. I should not be willing, if it were my own case, to omit the trial of some remedies which have been followed by recovery; but I should employ them merely as desperate remedies.

The passage of *gall-stones* through the ducts is

often attended with severe pain. In some persons, pain from this cause occurs frequently, not obstructing the passage of bile every time, but once in four or five times, as it may happen. It is a great object to give relief to patients suffering in this way. I have seen several such cases, for which I have directed the bicarbonate of soda in liberal doses, such as a drachm twice a day. So far as I have known, the disease has disappeared in every instance, after continuing the use of this medicine for several months; but some of the patients have lived at a distance from me, and I may not have been rightly informed respecting them.

In connection with the above, I have a remark to make with respect to *urinary calculi*. Cases of this sort usually go into the hands of surgeons, and my acquaintance with them has not been extensive. I had understood that the mulberry calculus (the oxalate of lime) was of rare occurrence. Now, it has happened to me to have had five cases of this calculus within three years; three of these within the last year. In each case, the calculus has been examined by Dr. John Bacon, on whose report I place entire reliance. I mention this as showing that the mulberry calculus is not a rare occurrence in this vicinity.

An *irritable bladder* is among the common troubles of old men. The first symptom, which attracts attention, in most instances, is a frequent micturition in the night-time. Sometimes this does not occur in the day; and, when it does, it is not so inconvenient as in the night. This is attributed in many instances to an enlargement or an induration of the prostrate gland; sometimes in the middle lobe only. When it is so, the disease may become very grave, and may prove fatal. But in a very large proportion of the cases I have seen, the results have not been of a serious character. I have introduced the subject principally to say this. I feel assured that many persons have suffered a good deal from their apprehensions under this malady, and accordingly have not been satisfied without the trial of troublesome, if not very powerful remedies. To one affected with this malady, I would say, "take care of your general health, keep everything well balanced, do not make yourself weak by confinement within doors, and do not fear a diet sufficiently nutritious, nor too readily omit the use of wine, if you have been accustomed to it. But then I would add, watch the effect of your diet, and omit acids, or wine, or anything else, which, on careful observation, appears to aggravate your disease. Above all, keep your bowels regular. Have you hæmor-

rhoids or prolapsus ani, seek relief from the surgeon. If diet and exercise will not keep the bowels regular, use cold water injections; but avoid purgatives, and certainly harsh ones." These remarks in regard to the state of the bowels are founded on the conneetion, which I have found to exist, between the reetum and the bladder in these cases; and on the suspieion that sometimes the trouble in the bladder has originated in disease in the rectum.

Here is a short letter, but you may think it long enough, as it does not furnish you with many weapons for the relief of disease. I am sensible of the defieieney, yet I hope the letter may be of some use to you. It guards you against following popular notions; and may induee you not to employ violent remedies till you are assured that they are needed.

LETTER XVI.

ON BOILS.

Boils are among the troubles for which your friends will laugh at you, rather than sympathize with you; and it is best to laugh, too, if you can. But a boil is a sore trouble; proverbially so. It has fallen to my lot to study the natural history of boils somewhat, and to study, also, the treatment of them. The common accounts of them are too superficial. Dr. Watson, in his lectures, gives the most correct description of them which I remember to have seen; but it is brief, and I think something may be added to it with advantage.

A *furuncle*, or *boil*, commences in the form of a pimple. It is a hard pimple, though very small at first; and sometimes, but not always, it is the seat of a stinging pain which calls attention to it. When pressed upon, the part is found to be somewhat sensitive. Within two or three days this becomes a pustule; or, in other words, a little pus is formed on its head, the pimple enlarging. A soreness comes on, and

the tenderness increases; and those, who watch their sensations, feel as if something was piercing slowly through the true skin. This sensation sometimes conveys the idea of a caustic eating slowly through the cutis. At the end of about a week this process, in which the disease is, in fact, extending through the skin, is finished; and then the swelling begins to increase, as if from something placed under the skin. We may, perhaps, regard the primary disease as terminating at this period. There is, then, something formed under the skin which acts like a foreign substance. I take it that this something is fibrin, or coagulable lymph, deposited in the subjacent cellular membrane. I am not sure whether this is all, or whether a minute portion of the cellular membrane is involved, and, undergoing a species of gangrene, constitutes, with the lymph, the foreign substance. It would seem that what follows consists in the effort to separate and throw out this slough, or foreign matter. From this period, early in the second week of the disease, the swelling and the pain increase. The extent of the tumefaction varies in its diameter from three quarters of an inch to two inches. In some cases an erysipelatous inflammation is added, and this spreads over a space equal to the back of the hand, or even more. The part thus affected puffs up more or

less, but this swelling usually subsides in three or four days. It is not concerned in the regular process of the boil.

In the first week, while the disease is extending through the cutis, the pustule enlarges, and more or less matter is formed. This is accompanied by a burning pain, which the inexperienced attribute to the purulent matter. If it be a bad boil, the patient thinks he has already suffered enough, and punctures the pustule, with a sanguine hope of relief. For a short time, perhaps, there is some relief, but within two days, if not in one, he finds the swelling and the pain decidedly augmented. Then, probably, he is charged by those about him with carelessness, and with having taken cold in the boil; or, perhaps, it is thought that he has used the wrong salve, or the wrong poultice. It is thus that philosophical nurses and goodies are always ready to explain the changes in a disease, which meantime is pursuing its own proper routine. The suppuration goes on beneath the derma, and at length an opening takes place, so that some matter is discharged from the depth of the boil, and this matter is often colored, more or less, by blood; but the end is not yet. On the other hand, it is then, at the end perhaps of the second week, that the great soreness is first noticed; the soreness which is proverbial.

There is not any other disease, known to so large a proportion of mankind, in which the soreness is so great as in this; and thence the common phrase, "as sore as a boil." This soreness has its seat in the inner surface, by which the core or slough is enclosed, and to which it is attached. Accordingly, in cases where the parts open so as to expose this core to view, if you touch it, and, still more, if you attempt to draw it out, the patient screams with the pain. It is like tooth-drawing. When the opening has taken place, you do not find a cup, but rather a boggy mass, from which the pus oozes out. In the course of the third week there comes a period, when the patient feels that the pain and soreness have abated; matter is discharged more freely, and the swelling is evidently diminishing. In twenty-four or forty-eight hours from this period, a little ragged wad makes its exit from the cavity; then the parietes come together, and, in another day or two, the trouble seems all over. When the core has been looked for, and is at length brought out to sight, some disappointment is often experienced. It is smaller than was expected, even when it is in its most perfect state. The truth is, that, from the moment it is detached from the living parts about it, the core shrinks; and that is the time when the tenderness subsides. Besides, it happens in most instances, that the core or

slough is not discharged in an entire state. It has been decaying, and I may say rotting, before its separation; and, when detained awhile before its expulsion, it separates into parts, which are washed out with the pus. After the discharge of this substance is quite completed, there is not much more suffering, provided the part is defended from injury; but another week passes even then before the skin is quite sound and well, so as to bear pressure without inconvenience. From the first pimple to this termination, four, and often five, weeks are occupied; but the really painful period is one or two weeks, according to the severity and extent of the boil. For, as neither all men nor all oak-trees are of the same size, so the furuncle, also, varies in its magnitude.

The description I have given is that of the disease in its most regular and most usual course. But, like its betters, the boil has its varieties. If you watch an apple-tree from the time when its blossoms have fallen and the fruit is set, you find this fruit falling off almost daily, at every period of its growth, varying accordingly in size, and often imperfect in shape; and, at last, when you come to the gathering, the apples differ in shape, as well as in size; for, in a large proportion of them one half is more perfectly developed than the other. So it is with boils at the present day; and, I

doubt not, if there had been some close observers attending Job, the remarks I have made would have been written down in his book. The variety, so common as to have acquired an appropriate epithet, is the blind boil. This is only a dwarf, sometimes ill-shaped, and like some human dwarfs it may have a sharp temper. It seems to me that, in the case of the blind boil, the boring through the cutis, or derma, and forming the core, which I have described as the first stage of the disease, is not perfected. This process stops in some part of the swollen cutis, and the core is not formed, or not fully. The swelling is not so large as in the perfect boil; and the duration of the whole disease is shortened. As this stoppage may take place at any point in the cutis, so the tumor will vary in magnitude. Moreover, the suppuration is very imperfect, and the bleeding is large in proportion. The other varieties are marked only by imperfections in different degrees, as happens to the apples. I must except, however, one variety, in which, soon after the boil opens, a fungus rises, circular in form, with a flat head, a quarter of an inch or more above the surface of the skin. No core is seen. The fungus is exquisitely tender. After four or five days it sinks down, and there is formed a much larger cicatrix than in other cases. It seems that a considerable portion

of the cutis is destroyed. We must infer that there is not any core in such a case, but that some injury is done to the parts which prevents the healing for a time, just as happens when a wound in the flesh will not heal because there is a piece of dead bone in the bottom of it. But I cannot trace over the whole process in accordance with this view of the case. It is a hint which may lead some one to a discovery of the true pathology in this little affair.

It seldom happens that one boil comes alone. More commonly there are several in succession, and not rarely a dozen or twenty. Some persons count these successive boils by hundreds. These will be recurring during one, two, and even three years. It is not uncommon to see two, and sometimes there will be found four or five, on the same person at one time; but not all of the same age. When large numbers occur in succession, I believe it will be found that many of them are small.

At some periods boils are epidemic. In 1852 and 1853 they were very common in this country, and in Europe also. During these years there were many persons, who could boast of the large numbers they had endured.

Happy the man who can point out the causes of the diseases he sees! If one could show any peculiar state

of the system giving rise to boils, he might, perhaps, learn how to prevent them. I am not the happy man in this instance, though I have been watching persons affected with the disease for very many years. In each individual instance you will find ingenious people around the patient, who can explain the matter quite to their own satisfaction. In one case butter and gravy, and other articles called *rich*, are accused as the source of the evil. In another it is low living which is suspected. I first learned that many boils occurred in succession many years ago. I then had two patients, one of whom had them for a year, the other for eighteen months. One of these was a gentleman, then young, of a very thin, spare habit, with sharp and distinct features, a dry skin, abstemious in his diet, and regular in his whole course of life. The other was a lady, also young, above common size, plump, rather fat, rotund, with a soft skin, looking as if she lived on fat things. Comparing these two cases carefully, I could not find anything common to them; but the contrary. The young lady was living at her ease, though she could not be called indolent. The gentleman was one of our active merchants, never idle. I have been equally unfortunate since the time when I saw these two patients. Others have differed from each other as much, and in every way. They have

been of almost all ages, all temperaments, all habits as to diet, etc.; some perfectly healthy in their constitutions, others far otherwise. · Among them some have been tuberculous.

The subjects of boils are comforted with the assurance that they are, or will be, the better for them; or, at least, that they are saved by them from internal diseases. One cannot prove that assertions like these are ill founded. I can only say that I have looked carefully and honestly for evidence, in support of them, without success. A valued friend of mine, a lady between forty and fifty years of age, has raised blood, more or less freely, from her fourteenth year; and has at times been much impaired in health otherwise, though always exhibiting a great power of endurance, with the aid of a very strong mind. Since she was forty she has had boils for two or three years. During those years, and since, she has suffered severely from the same complaints as before. This has not happened under my observation, for she was living at a distance from me, but I have the facts on good authority.

Though I cannot point out the peculiar fault in the constitution, or habits of patients who have boils, I can show how they are brought on in some cases. Blisters produced by cantharides will commonly heal in a

few days, if the cuticle is not turned off from them. But, when it is, they often take on a new inflammation, for a time will not heal, and become *sore blisters*. As these sore blisters are healing you will, not unfrequently, find them surrounded by a thick crop of pustules of various sizes. Watching the patient, you may find these pustules followed by others of a larger size, much fewer in number, and at a greater distance from the blister. Next, at a still greater distance, you will find a boil, and then another, and another. In such a case you may find the same trouble continuing for many months. Where poultices have been applied to boils you will often find similar pustules on the margin of the circle covered by the poultice, and a new crop of boils extending from them. Nearly forty years ago I made an issue on the breast of a consumptive patient. He shortly afterwards went to Cuba. On his return he told me that he had a constant succession of boils during his absence. They began near the issue, and they continued to show themselves for nine months. The tuberculous disease went on, apparently undisturbed by the disease on the skin.

It is well known that patients, whose skins become sodden under hydropathic treatment, are very often affected by boils; at first numerous and small, afterwards fewer and larger. At least I believe that they

pursue this course, just as happens when they arise from blisters; only, after the water treatment, as I take it, the boils come at once on various parts of the body, instead of starting from a central point. The cause in these cases is much the same as exists in the the poultices.

Let it be understood that many persons are afflicted with this same disease, without having been subjected to any of the causes above described.

Having been thus full in the description of boils and in the discussion of their causes, I come now to the treatment. Is anything useful to be done to the part affected? Can anything be done to prevent the recurrence of the disease?

As to the first question I reply, unequivocally, in the affirmative. The boil cannot be jugulated, as it has no neck; but its head may be split open in its embryo state, and there will be an end of it. I endeavored to describe the disease from its very commencement on this account. One could not say with entire confidence, on examining a pimple, that it would, or would not, become a boil. It has not certain and specific characters. But if a man has had one boil, and soon after has a pimple, such as I have described, the probability is that this will grow into another boil. If he has had two or three boils

about his hand and arm, and a pimple comes in the same region, it is almost certain that that will grow into a boil. Now, what I have to say is, that if you carry the point of a lancet through the middle of that pimple it will dwindle away. The sooner this is done, after the pimple is formed, the better. The treatment succeeds if adopted on the second or third day; and even later it does some good. If done late the disease is not entirely overcome; it is blighted and is short-lived. This treatment is not worth trying after the fifth or sixth day; not after the affection has extended deep into the true skin. You will sometimes see, when the pustule has just formed, if the cut does not cross exactly in the centre, that a half, one-sided pustule will be formed, yet the disease will not come to much. Be it noted, however, that this operation will not succeed, if it be not performed thoroughly and exactly. The lancet should be plunged through the cutis, beginning just outside of the pimple, and be carried through this pimple, at the same depth, dividing it as near as may be into two equal parts.

The difficulty in the treatment is to discover the pimple on its first formation. Occasionally it will come in a quarter, which the patient has not thought of, and often where he cannot see it. But usually the pimples come in the vicinity of the previous boils,

as on the head, on one of the limbs, or on the parts around the pelvis. If the patient is apprised where the pimple will probably come, he may, by feeling round the suspected region, be sure to discover it at its first coming. For this purpose let him examine himself twice a day. He may fancy that there are pimples where there are not, but the physician will decide that matter; or, if both should be in error, it is not a great evil to feel the lancet three times, if one boil can be saved by it.

Let me give one example. A gentleman, about seventy-five years of age, called me to see a boil formed on the hairy scalp, near his ear. It was not of the largest size, but it proved a sore trouble to him. Nothing had occurred to explain the occurrence of it. Before this was well, he sent for me to see another, much smaller, in the same vicinity, which had been coming four or five days. I divided this freely, and with as much success as I had promised him. The disease went on, but the boil was much smaller than the first. He now realized the importance of watching for the pimples, and he had six in rapid succession, all under the hair. I divided each one, and arrested the disease in each case. I began the use of the sulphate of quinia as soon as the third boil commenced, which was the first I saw in the state of a pimple. It

required some days before I arrived at a sufficient dose of this medicine to affect the system; the patient being an old man, I had been very cautious in the use of it. From the time the constitutional effect of it appeared the pimples ceased to show themselves.

In this case we have an instance of the tendency to a recurrence of boils; of their tendency to keep in one neighborhood, which is not always but often shown; of the effects of an early division of the pimples; and of the effects of the quinia, which I shall treat of presently.

Now, as to the second question; when a patient has had several boils can anything prevent their further recurrence? To this I cannot give so confident an answer as to the first question; but I think it may be done in a large proportion of instances. If a man has had ten boils in succession, you cannot be sure that he will have one more. If, then, you administer your medicine, and he has no more for a year, you cannot be sure that the medicine has produced the exemption. But if you use the same medicine for a number of persons, of whom some have had three boils, some ten, and so on to a hundred, and if in the largest number of these persons the disease does not recur, you then have a right to believe that the disease was arrested by the medicine. Now, this is what has

happened in my practice. For twenty or more years I have given the sulphate of quinia with the result above described.

In observing the effects of this medicine in intermittent fever and intermittent headache, it appeared to me certain that it did not produce its beneficial effects by acting as a tonic. In those diseases the paroxysms cease without any evidence of increase in strength, as measured by observation of any of the functions, organic, or animal. In what way, then, does the cinchona, or do the other remedies, operate? It has seemed to me that they operate by taking away, or overcoming, the susceptibility to the disease. This at first was only an hypothesis. It was, however, sufficiently plausible to lead me to bring it to the test of experiment. Not to make a long story, I will say at once that I have given the sulphate of quinia, the most convenient preparation of cinchona, for many years, on this principle, in various diseases; that is, in cases of boils, of styes upon the eyelids, and of some eruptions which have kept recurring in different parts of the body, though not severe in their character, and in various painful affections. Of the effect in these last I treated in another letter. The result has been very satisfactory. I do not say that success has always followed this treatment. It certainly has not; but

the results have been satisfactory in so large a proportion of instances, as not only to justify the practice, but to make me regard it as my duty to pursue it and to point it out to others. I have the less hesitation in saying this, inasmuch as the treatment is not of a kind likely to be injurious.

In stating my opinions on this subject I am not anxious to make any claims to originality. The honest truth is, that I cannot tell whether I got the first hints from any one else, or not. It is the truth I have cared for, in this and other cases, and this I wish to present to others; and not a statement of the relative claims of those, who may have been thought the original discoverers. A day or two before I began to write this letter, after looking into various works in respect to boils, I took up the excellent, and well-known lectures, by Dr. Watson, of London. I had not any recollection of a mention of this disease by him, but I found a brief, and, as far as it went, a correct statement on the subject. I was surprised to find that he noticed, what I had not found done by any one else, the commencement of a boil in "a tender knot, just beneath the surface," which I regard rather as a pimple; also, that he mentioned, as practised by some persons, cutting "the hard tumor through while it is yet crude," and the use of the sulphate of

quinia in certain cases; but this as a tonic, and not probably in the full doses which I deem necessary. My practice, however, was not derived from Dr. Watson. I could mention various things, for which I am indebted to this learned and sagacious professor, but the treatment of the disease under consideration is not one of them. His work was published in 1845, and did not reach me till a year later, while the treatment, which I have described, was adopted ten or twelve years before that date.

It is well, perhaps, for me to state, distinctly, the extent to which I use the sulphate of quinia. In the case of an adult, I give from twelve to sixteen grains of that article, divided into three or four doses, on the first day; and if the peculiar effects of the medicine on the head or ears do not take place, I increase the quantity, the next day, by four grains; and continue to increase the quantity daily by four grains, until there is some evidence that the patient has got as much as he can comfortably bear. On the day after some inconvenience is occasioned by the medicine, I lessen the daily allowance by four grains. If this is borne well, or whatever daily allowance is borne with ease, I continue the same for four or five days, and then gradually bring the quantity down to two grains in a day. I prefer not to omit the medicine entirely

for three or four weeks. I state here the course which I deem necessary to secure all the good effects, which the medicine can afford; but I will add that I have reason to believe a shorter course of the medicine will often suffice. Some persons have been too impatient to do all I now advise, and have done well. Others, however, have been obliged to go back and begin the treatment over again. What I deem essential is to begin with large doses, so as to make a distinct impression on the system as early as possible. This having been done, smaller doses afterwards will maintain this good impression. Though we have no intermittent fevers in our region, except casually, I believe that the same principles should govern the use of the quinia in that disease. It is very probable that arsenic might produce all the good effects which the quinia does, in cases of boils, but I have never tried it.

I must say a few words on the local treatment of boils. And, first of all, do not apply poultices to them. It is enough that they may occasion an increase of the disease. At particular times they are thought to be comfortable; but, on the whole, I regard them as dirty and troublesome applications, and as often causing much discomfort to the patient. They are endured under the popular notion that they are

necessary to bring the boil to its proper end; that they draw to the surface the noxious humors. I always pay so much respect to popular notions as to bring them to the test of experience, if I do not see any certain objection to so doing. I did this long ago as to poultices for boils, and I became satisfied that there was an error on this subject. Occasionally, for a few hours, a warm and moist application is soothing. For that purpose a fomentation with warm water may be directed. A better thing, however, where it can be had, is a piece of *spongio-piline*, wet in warm water. This may be wet with ease at any moment, and is free from some of the evils of a common poultice. But much soaking of any kind is bad. For the rest, the simplest applications are the best. The spermaceti cerate, or something like it, is sufficient to protect the diseased part from irritation, and that is all which is needed. A piece of linen, or lint, spread with the cerate may be kept in its place by very narrow strips of adhesive plaster. Until some discharge has taken place one dressing will last for two or three days; afterwards, the dressing should be renewed as often as cleanliness requires. Let me add one more direction to be observed, at least as long as the soreness of the part continues, and this I shall add

in words which I read more than fifty years ago, and have never forgotten, written I believe by Mr. Sharpe, of Guy's Hospital, namely, "Do not cleanse the sore too curiously."

LETTER XVII.

ON THE TREATMENT OF TYPHOID FEVER.

This letter shall be devoted to the treatment of typhoid fever. I need not describe the disease. You already know it as the continued fever seen everywhere in New England, and to be found, probably, in every part of the world. In our seaports we have had the yellow fever, occasionally, within the last sixty years, if not before. In my day, the spotted fever, so called, prevailed for several years in different parts of New England. The typhus fever, as understood at the present day, has occasionally been seen among us; but, probably, always imported from abroad. But the continued fever, called typhoid, is the disease which is never absent from us, and which, in some seasons, prevails extensively, now in one place and now in another.

It is the *treatment* of this disease I wish to discuss. Can this disease be shortened in its duration, or diminished in its violence, or its danger to life lessened, by

treatment? These are interesting questions, and it is worth some trouble to ascertain the true answers to them. Every year many persons suffer from this disease, and some very severely; many die, and that at an early period of life, when just entering on its active duties; and, of those who survive, many have their vigor lessened and their comfort and usefulness abridged for months, and even for years, after the disease has left them. Can these evils be diminished?

I believe that the opinion has been gaining ground among us, for twenty or thirty years past, that the above questions must be answered in the negative. Or, if it is thought that any benefit can be derived from treatment, it is maintained that this is of very small amount. This view of the subject is favored by my friend Dr. Bigelow, in his admirable "Discourse on Self-limited Diseases."

There is a great presumption in my mind that any opinion advanced by Dr. Bigelow is well founded. In this community his decisions have a most deserved weight and influence; and most especially among those who are the most competent judges. It gives me great pleasure to bear testimony in public, as I have often done in private, to his high claims to respect as a scholar and philosopher. The discourse

to which I have referred is full of wisdom. I could say more, but I will restrain myself from a fear that we may be thought to be bandying compliments.

In the discourse on self-limited diseases Dr. Bigelow says, as follows:

"Before quitting the subject, I beg leave to introduce the opinion of one or two medical writers, in regard to the possibility of interrupting or breaking up this disease by means of art. M. Louis, of whose researches in regard to typhoid fever, it is but small praise to say that they are more exact and comprehensive than those of any living writer, is of opinion that the disease cannot be thus intercepted. 'Experience,' says he, 'has shown that a well-marked typhoid affection is not capable of being broken up.' To this testimony of one of the most eminent teachers in the French metropolis, it may not be amiss to add that of an American physician, whose opportunities for observing the disease in different parts of New England were extensive, and whose Essay on Typhus Fever well merits an attentive perusal. The late Dr. Nathan Smith, in the course of some remarks on the possibility of interrupting this disease at its commencement, observes: 'During the whole of my practice I have never

been satisfied that I have cut short a single case of typhus, that I knew to be such.' *

"Having said thus much, I leave the subject of the tractability of typhus and typhoid fever to the light of future investigation. It is but justice to state, that numerous and highly respectable authorities are declared in favor of the efficacy of art in shortening and mitigating these diseases; and it will be a source of gratification to the friends of humanity and science, should it ultimately be settled that the active treatment now usually pursued at the commencement of cases, is instrumental in lessening their duration, severity, or danger."

It will be seen that my friend is an unwilling doubter; and no one would be more pleased than he, if it can be shown that any check can be given to this direful disease, and that the questions I have propounded can be answered in the affirmative. I am not prepared to assert, positively, that they can be so answered. But I believe that I can bring so much evidence on that side of the question, as to justify the

* At the time of the publication alluded to, the distinction between typhus and typhoid fevers had not been well made out. The distinction is good, though writers of authority differ on the subject.

trial of active remedies under proper circumstances; nay, so much, as to make it our duty to try them until further evidence shall show that there is some fallacy as to that which I shall adduce.

It is from my report on typhoid fever in the Massachusetts General Hospital, made in 1838, that I shall derive the evidence referred to.

Without going into all the particulars, I will take what relates to the effects of emetics. This report was grounded on the cases of that disease in the hospital from 1822 to 1835, inclusive. From this it appears (pp. 7 and 8) that on a fair estimate there was one death in about eight cases.

Among those admitted to the hospital in the first two weeks of the disease, one hundred and fifty took emetics before or after admission; of these one hundred and fifty, thirteen died, being 1 in 11.53

In the same period eighty were admitted who did not take emetics; of these ten died, being 1 in 8.00

The difference is very striking. But of the one hundred and fifty who took emetics, some took them earlier and some later in the disease. It has been thought that the earlier this and other active and depletory remedies are administered, the greater the

benefit. See how far this is confirmed by the same report.

Fifty-nine entered the first week of the disease, and took emetics in that week; four of these died, being 1 in 14.75

Thirty-one entered the same week, and did not take emetics; of these three died, being 1 in 10.33

Ninety-one entered the second week, and took emetics either before or after admission; of these nine died, being 1 in 10.11

Forty-eight entered the same week, and did not take emetics; of these seven died, being 1 in 6.85

The advantage was on the side of those, who took emetics; but more decided as to those who entered the first week, than as to those who entered the second. The last had not probably been so well nursed in the first week as the others. But also they had not on an average taken the emetic so early; and that, no doubt, made a difference in favor of those entering the first week. My own experience taught me long ago that emetics were most useful when taken within the first three days of the disease. This is confirmed by the hospital cases. It appears from the report that thirty-two patients took emetics within the first three

days of the disease; of these one died, 1 in 32
Twenty-seven took emetics within the last four days of the first week; of these three died, being 1 in 9

Undoubtedly these last numbers, relative to those who took emetics in the last four days of the first week, are less favorable than would be found if the number was larger; for the proportion of deaths is greater than in those who entered the second week, and took emetics, and of whom the larger part, no doubt, took their emetics at a later period of the disease than the above twenty-seven.

If, now, we inquire what was the effect on the duration of the disease in those, who took emetics and recovered, it does not seem to have been much if anything to the advantage of those taking emetics later than the third day. But as to those who took emetics on either of the first three days the benefit is unequivocal.

Of those who took emetics on the first day of the disease, the average day of convalescence was the 14.66

Of those who took emetics on the second day, the average day of convalescence was the 15.32

Of those who took emetics on the third day, the average day of convalescence was the 16.46

While of those who took emetics on the fourth, fifth and sixth days of the disease, and recovered, the average day of convalescence was the 19.45

It cannot surely be attributed to accident that these results were so favorable to those, who took emetics, among cases not selected but taken as they came, through many successive years. But I feel assured that the result would have been found much more favorable had all those, who took emetics at an early period, been properly managed afterwards. To the best success of this mode of treatment it is necessary that great care should be taken after the first relief from the emetic. However well the patient may seem, he should be treated as a sick man. The emetic should be followed by an active cathartic on the following day, unless it should itself have had a powerful operation on the bowels. Probably this was done in most of the cases. And then, for a week at least, however well the patient may appear, he should be restrained from all efforts of body or mind, and should be kept on a very moderate, bland vegetable diet. Though the headache and pain in the back and limbs be removed, the pulse restored to a natural frequency, the chills and heat subsided, still the liability to the disease remains. Therefore the disease is easily

lighted up anew; and, if great errors are committed, it may return in its full force, and run through its entire period. All this I have learnt, long ago, in private practice. Now, when we consider the situation of patients who resort to a hospital, and that they would not go there if they had the comforts of good homes and careful attendance, it will be seen that few of them will get the full advantage, which an active treatment at the onset of the disease might have afforded them. I am in truth surprised that so large a proportion of those, to whom my report refers, did derive such marked benefit from this treatment. Such would not commonly be the result in hospital practice of large cities. I think it may be explained in part by the recollection that, in our hospital in its early years, the great majority of the patients were of our native stock, and bred up with some regard to the rules of prudence.

In reading accounts of successful practice from a medical man, however honest we may think him, it is necessary to guard against the disposition on the part of the reporter to see the results in a favorable light. If the result is not in every case all he could wish, he is prone to charge the patient with some commission, or omission, which may explain the failure. The suggestions in the last paragraph are not however to be looked

at in this light. I do not say that the patients referred to were very imprudent. I say that I wonder that there was so much prudence among them, as the good results give evidence of. I must beg, also, to call to mind some circumstances respecting these cases. The patients were not treated by me from the beginning. The number was small for whom I prescribed the emetics. I did not plant the trees, and feel a paternal solicitude in watering them. A very large proportion of these patients had their emetics before they entered the hospital; probably some days before. Nor, when they got there, did they all come under my care; a good part of them were under the care of my colleagues. Those acquainted with our hospital know that the case of every medical patient is taken down on the day of his entrance by the house physician. He then notes the remedies employed before the admission of the patient. The attending physician dictates daily, if the case be an acute one, the state of the patient and the treatment to be pursued. This is all placed in the case-book within twenty-four hours. There is no chance for interpolation at a subsequent period. The attending physician, in going his rounds, cannot be supposed to bear in mind every typhoid patient, whose treatment began with an emetic, and to make his reports more favorable accord-

ingly. Still less can it be suspected that the case-book would be falsified in any instance, in order to make a favorite remedy appear to more advantage.

See, now, how the statements in my report on typhoid fever were obtained from the hospital books. I made out large blank tables, having columns for every important symptom and for the remedies employed; distinguishing those administered before and those after the entrance into the hospital. Then taking the hospital books in their order, from the beginning, I entered the name of each patient in my tables, and the entries relative to him in the corresponding columns. The particulars had to be sought out patiently, for the records had not been made with reference to such a use of them. To go through three hundred cases in this way was the labor of my spare hours for several months. It was not until the work was finished that I went over the cases to obtain the results as to the symptoms of the disease, its treatment, and its favorable or unfavorable termination. These results, then, were as faithfully represented as could by any means be done. More especially whether death occurred more or less frequently under one mode of treatment than under another, was ascertained so certainly, as to preclude all chance of error.

Is it asked if those patients who took emetics did not before, or afterwards, employ other remedies? I reply, that they did, probably in every instance. Then, I may be told, that I might be misled in attributing the favorable results to the emetics. I answer that the other remedies employed were, no doubt, the same as for those who did not take emetics. I say, *no doubt*, because all were treated by the same physicians; and that in their treatment the physicians were guided by the same general principles in one set of cases as in the other. I should hope that a benefit was obtained from this after treatment; but this would not show that the difference between the two classes of cases was not to be attributed to the only difference in their treatment, namely, that emetics were given to one class, and not to the other. If, lastly, it be asked, why emetics were not administered to all the typhoid patients, I reply, that many of them were admitted at too late a period to do this with advantage at the hospital; why they were not administered before the admission of the patients, must be answered by those who had the care of them. I presume, however, that most of these did not get medical advice early; and that, in some cases, the physicians did not think well of the practice, or found some objections in the circumstances of the particular patients under their care.

There are other remedies, besides emetics, for the utility of which my report affords some evidence; of which, cathartics at the commencement of the disease, and antimonials in doses not sufficient to induce nausea, or vomiting, are the principal. On these points I must refer to the report in the Transactions of the Massachusetts Medical Society.

I am aware that one doubt may lurk in the minds of some of my brethren. That is, whether there was not some error as to the disease in those patients, who were vomited early, and in whom the results were favorable. I say there is not any reasonable ground for such distrust. In examining the cases in the hospital books, which had been called typhoid fever, I threw out all which were doubtful, as is stated in the report. But did we know how to diagnosticate the disease? One answer to this is, that in every fatal case, which we had denominated typhoid fever, and in which the small intestines were examined properly, the disease in Peyer's glands was discovered. Another answer is, that a very large proportion of the patients who were vomited early, were brought to the hospital, and there underwent the disease for a longer or shorter time; and the records made there satisfied my mind as to the disease. At last, then, comes the plain question, whether I was able to distinguish the

disease. To this I shall reply plainly. I watched and studied this fever through three or four seasons when it was epidemic, and the sporadic cases of it for more than twenty years before our hospital was erected; and I made it most especially my study to recognize it on its earliest days. I believe that I studied it successfully; but I must leave it to those who know me, to decide that point.

And, now, a few words at parting. I shall take the risk of repeating what I have said before, in my desire to impress on you what I think essential to your well doing.

The sick-room is to be the field of your labors. To everything which occurs there you are to give your attention, and every step there should be under your direction. Questions of the deepest importance are constantly arising there for your solution; questions on the constitution of man, on the powers and the machinery by which his functions are performed, on the manifestation of disorder in those functions, and the causes which may induce disorder, on the mode of restoring health, or of guarding against all aggravations of disease, so as to allow the best chance for a favorable result by the spontaneous efforts of nature. These, and the like questions, will be arising constantly, and you must be prepared, as far as possible, to

meet them. Look at the gardener going forth to his labors furnished with all the tools and appliances which can aid him in his cunning work, — thinking no preparation too great, no precaution too small, if he can thereby make success more certain. See him seeking for each plant the site most favorable to it, and furnishing it with the soil best adapted to its wants. Notice how minute are his directions to his laborers, trusting as little as possible to their discretion. Do not cares of the like sort, looking to great and small things, belong to the physician, who has to do with what is so immeasurably more important than the fruits and flowers of the garden? He must be clear, and exact, and minute, in his orders to the nurse, as the gardener is to his laborers; remembering that everything may depend on the more or less, on the how and the when. For these duties the physician cannot be prepared without the utmost familiarity with the sick-chamber. This is to the physician what the garden is to the cultivator; the place for which all his studies and labors should prepare him, and where he should forever be advancing more and more toward a perfection which he can never reach.

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