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NATURE

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THE CURE OF DISEASE:

A LECTURE

BY

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NATURE IN THE CURE OF DISEASE.

In the course of my practice, I have often had to regret the want of a cordial understanding between my patients and myself regarding what was to be expected from medical treatment. I have often found an undue confidence in medicine, leading to expectations of benefit which I well knew could not be realized, but which it was impossible candidly to correct, without producing the impression that it was the unskilfulness of the physician, and not the imperfection of the science, that was at fault. By allowing these expectations to continue, the frequent consequence was disappointment in the present instance, and distrust in the power of medical science for the future.

This ignorance of the public regarding the power of Medicine does not always operate to the injury of the physician. On the contrary, it more frequently leads to his gaining credit for performing cures with which he had nothing to do, but which were effected by Nature, without, or perhaps in spite of, his aid. If medical men were to look only to their own interest, and if they were contented to mix up with their practice a considerable portion of quackery, they would gain far more than they

would lose by the ignorance of the public. There may be some in the profession who, for their own ends, are willing thus to pander to ignorance and prejudice; but the great proportion of medical men would scorn to do so, and would yield to this ignorance only from their inability to combat it.

There is no doubt that in former times medical men did much to promote, rather than to remove, this ignorance, and by mystery and specious pretence endeavoured to enhance their own value at the expense of truth. This, however, was the evil of the times, and medical men did not differ from other professions. We all know to what an extent priestcraft went, in former and darker ages, in delusion and unfounded pretension; lawyers were not behind, and even handicrafts and trades had their mysteries revealed only to the initiated.

Much of this, but not all, has passed away, and Medicine does not differ from its neighbours, if there be in it still some remains of the mystery and delusion of olden times. Other professions have not lost, but gained, by the abandonment of false pretences. The clergy are not less truly respected now that no one believes in their power to pardon sins, or bring down temporal and eternal judgments; and the noble science of Medicine has in it too much of truth and power of doing good, to suffer, although it were stripped of every false attribute with which the darkness of former ages has invested it. Indeed, I am certain that if it were clearly understood what Medicine can do, and what it cannot do, it would stand on a much higher pedestal in public esteem than it now does.

Before we can understand what it is in the power of Medical Science to do, it is necessary that we should have a clear knowledge of what is required from it. For this end, we should first inquire what Nature can do without the assistance of Art. This knowledge should form the foundation of the study of Medicine; but, even amongst

medical men, this subject is too much neglected. Their minds are so occupied with learning the resources of their art, that they are apt to forget that Nature can do anything at all. It is true, that in our schools of Medicine the healing powers of Nature are clearly taught; but the young man, burning with zeal to go forth to do battle with disease, is so anxious to learn what he should do, that those instructions which would teach him, in many cases, to do nothing at all, are apt to fall on inattentive ears.

It would be a great acquisition to Medical Science if we could have a clear knowledge of the natural history of all diseases—that is to say, of what would be their course and termination if left entirely to Nature; but this is very difficult to acquire, seeing that no medical man would be justified in leaving his patient unaided merely to gain such knowledge. And although many do pass through disease without medical aid, in such cases there is no one to watch and record the result.

But if medical men are more ignorant than they ought to be of the healing powers of Nature, yet they are necessarily acquainted with it to a considerable degree, whereas the public seem to know nothing of it whatever; and this is the great source of the want of understanding between physicians and their patients. As I consider this knowledge to be of great importance, I trust you will bear with me whilst I endeavour to impress it on your minds, even should my plan of doing so appear unnecessarily prolix.

Suppose that any of you were to cut your finger and to apply nothing, but merely keep it still and watch it: What, think you, would happen? If you were to cut a piece of cloth or wood, you might watch long enough before any change would take place. Even if you were to wound a growing vegetable, little or no effort at healing would ensue. But it is different with the animal body.

After a short time the bleeding ceases. This happens, partly, because the loss of blood soon lessens the force of the circulation, partly by the contraction and retraction of the divided vessels, and partly by the influence of the air in coagulating the blood in the bleeding orifices, and so forming little plugs to stop the flow. At any rate, it is certain that after a short time the bleeding stops, even without the aid of spiders' webs, felt from an old hat, or any other styptic. Soon after, there is an increased flow of blood in the small vessels near the wound, so that the part becomes red, swelled, and painful; then a thin, clear fluid is poured from the edges of the wound, and, if they are nearly in contact, this thin fluid fills up the space between them; gradually it thickens, and if you were to examine with the microscope, you would see the little blood-vessels, and nerves at the sides of the wound, shooting out branches into the clear fluid, so that, as it thickens, it becomes organized, that is, having nerves and blood-vessels of its own; then the superabundant fluid that filled up the wound is absorbed, and so the edges are drawn together and firmly glued, so that all trace of the wound is lost.

I have taken it for granted, that, in the wound, no large artery has been divided. But even when this is the case, Nature does not always fail to effect a cure. At first the force of the circulation causes such a flow of blood, that there is not time for a clot to form so as to plug the bleeding vessel; but from the loss of blood, the circulation becomes more feeble, or fainting takes place, during which there is little or no circulation at all; and so the blood gets time to coagulate, a plug is formed, and, even when the patient recovers from the faint, the bleeding does not return, and the further progress of the wound is such as I have already described.

Of course, I do not mean that, in such a case, any one would willingly leave it to Nature. A little judicious

pressure, or, if necessary, a ligature on the artery, would at once arrest the bleeding; but I merely wish to show you what Nature could do if left unaided.

This rapid healing of a wound, which is generally effected within forty-eight hours, is what, among surgeons, is called healing by the first intention. You have a familiar example of it in the closing of the wound after bleeding in the arm. But for such healing by the first intention to take place, several conditions are necessary: the space between the lips of the wound must not be large; there must be no motion of the edges to disturb the process; it must be a clean cut, so that it be not bruised or torn.

If, from the want of any of these conditions, healing by the first intention be prevented, you must not imagine that the resources of Nature are exhausted. On the contrary, she immediately begins to repair the injury in another manner, as effectual, although not so rapid. An increased flow of blood to the part takes place, causing pain and swelling. (This congestion seems to be the preliminary to all of Nature's healing processes.) After a time a new action is begun: pus or matter is secreted and poured out, which relieves the congestion; and, during this process, any parts so injured, as to be unfit for repair, are dissolved and carried away by the matter, together with any foreign substance that may have got into the wound. And now, underneath the matter, and protected by it, a thin lymph is poured out, similar to what joins the parts in healing by the first intention; but, instead of filling up the whole wound at once, it gradually thickens, and forms little projections about the size of pins' heads, called granulations; the minute blood-vessels and nerves shoot out branches into these, and they become organized; and then these pour out new lymph, and form new granulations, until the whole space is filled up, and the wound is healed.

There is a remarkable circumstance in this healing, both by the first intention and by granulation, that whatever textures are cut, the lymph poured out by them forms itself into the same texture, so that bone forms bone, muscle forms muscle, skin forms skin.

You will observe that the process I have described—the congestion, with its pain and swelling—the formation of matter, or bealing, and the granulations—are all parts of a healing process which is effected entirely by Nature, without the assistance of Art. And in every case, when there is nothing unusual to interrupt it, and when Nature gets fair play, wounds are healed in this way; that is to say, by Nature alone.

It very often happens, however, that Art gets the credit of Nature's work. This used to be oftener the case formerly than now. When I began practice, thirty years ago, nobody ever thought of leaving Nature to heal even the slightest wounds. Every person had his or her own healing nostrum. Some washed the part with whisky, and believed that the whisky healed; some used Riga Balsam; some put salt or nitre into the wound; and there were great varieties of healing salves;—without some of which means, it was universally believed no cure could be effected. And all of them, in the estimation of their patrons, healed the wound. No one dreamed that Nature performed the cure in total disregard of their applications.

At a still earlier period, there was even a greater variety of healing salves and lotions. But, among the ancients, these were applied, not to the wound, but to the sword or knife that had inflicted it. The instrument being wrapped in the ointment, was put carefully away, and the dressing changed daily; and this was found a very effectual way of healing wounds,—quite as effectual as any we have now. You laugh; but I have a notion that the ghosts of these forbears of ours laugh in their sleeves (if ghosts have sleeves) at their descendants, and are astonished at

our absurdity in applying the filthy ointments, not to the knife or sword, where they could do no harm, but to the wound itself, where they often do a great deal.

Instead of a wound, let us suppose that some foreign substance—a thorn, a splinter of wood, or a bullet—is lodged in any part of the frame, and that no remedial means are used: What would be the result? First, a flow of blood towards the part, or congestion. A certain amount of inflammation follows. This, in rare instances, is succeeded by a pouring out of coagulable lymph around the foreign substance, which gradually thickens and becomes a firm membrane, that fixes the foreign body in its position, and protects the neighbouring parts. So bullets, and other substances, have been kept for life, doing little or no harm. But, in general, Nature is not willing to keep, but takes measures to get rid of such foreign bodies. Instead of coagulable lymph being thrown out, the process of suppuration is set up; matter is poured out, and certain changes in the surrounding parts are induced. Those textures farther away from the external surface become thickened and impervious, so that the escape of the matter in that direction is prevented, whilst those textures between the foreign body and the surface become absorbed, and get thinner and thinner, till, at last, the matter reaches the surface, and escapes, carrying with it the cause of the evil. Then the cavity or abscess fills up by granulation, and is healed.

You will thus observe that suppuration is also a work of Nature, and is not the result of your poultices, or any other treatment. I am not speaking of whether you can promote or modify the process by treatment. I merely wish to show you that it is a natural action by which injurious substances are removed, and the injured parts restored.

If, instead of a wound, we have a bruise, let us examine what are Nature's operations. We shall suppose

that the bruise is in the neighbourhood of the eye, because there, on account of the thinness and transparency of the skin, we can see the changes that take place.

The neighbourhood of the eye being bruised, a considerable amount of pain, swelling, and redness takes place. Soon the skin becomes of a dark blue colour. We have a black eye. The pain and swelling are caused by an increased flow of blood towards the injured part, and by an exudation of lymph from the congested vessels into the cellular tissue. The discoloration is owing to the escape of blood, under the skin, from the small veins which have been ruptured by the violence. Now, if nothing in the way of medical treatment be done—no beefsteaks, no Solomon's seal, no sugar of lead lotion—do you think the person would have a black eye for life? No. After a time, longer or shorter, according to the severity of the injury, certain changes would take place: the pain and swelling would diminish; the discoloration would become paler, change to a greenish, then to a yellow tint, and at last it would disappear, and all trace of the injury be lost.

This is an example of what takes place after a bruise in any part of the body, although, from the thickness of the skin, the changes cannot be so well observed.

If, however, the injury has been so severe as to destroy any of the structures to such an extent as to render them unfit to be restored, then another action takes place, the destroyed part loses its vitality, and acts like a foreign body, exciting inflammation in the neighbouring parts, and suppuration, by which it is thrown off in the way I have already described.

I have hitherto spoken only of injuries produced by external violence; but there are many diseases the causes of which are from within, not from without, the body. For instance, inflammation of a part may take place merely from an irregular flow of blood towards it. Cold

applied to the surface may throw the blood on the internal organs, producing congestion, in which the part, or organ, is merely gorged with blood, causing swelling, and interfering with the performance of its functions. In general, this state is quickly cured—the powers of nature are excited—the blood is thrown back to the surface, and the internal organs are relieved. But it sometimes happens that the congestion has been so great that some injury to the delicate structure of the organ has been produced, or, perhaps, by the engorgement of the blood-vessels, a portion of the watery part of the blood has been forced through their thin walls; and if this were left unrepaired it would lead to great disorder. In this case, something similar happens to what takes place in the healing of injuries. Inflammation is set up, accompanied by pain and swelling—the absorbents are excited to increased action, and so the fluid which has escaped is absorbed, and the injury done to the minute structure is repaired; but, if it be too great to be healed in this way, suppuration is excited, and the matter gradually makes its way to the surface, carrying with it those particles of the structure which have lost their vitality.

You will thus see that inflammation of an internal organ is always, in reality, a healing process, and that its natural course is towards a cure. I do not mean that, if left to itself, it will always end in recovery. If the organ be one very necessary to life, such as the lungs, heart, or brain, the disorder of its functions produced by the healing action may be so great as to cause death. Neither do I mean that it will be right to leave it to itself, because, as I have afterwards to show you, Medical Science may do much to moderate the action. But, at present, I merely wish you to see that in internal inflammation there is a natural tendency to recovery.

Allow me now to speak of another class of diseases, where poisons or injurious substances are taken into the

system. Here, too, you will see the wonderful power of Nature.

The first provision for rejecting hurtful substances is the sense of taste placed at the entrance of food into the body, which often leads to the rejection from the mouth of what would be injurious.

But supposing the poison to have reached the stomach, then it produces a train of remarkable actions—sickness, and at last vomiting, by which, the natural movements of the stomach being reversed, the offending matter is expelled. You will observe that I am merely pointing out this as one of the means which Nature takes to remove noxious substances. I do not mean that in this way Nature removes all poisons. On the contrary, many do not excite vomiting at all. Still this action well deserves to be enumerated among the means by which Nature preserves herself from serious injury. Here, in passing, allow me to point out the evil of rash and ill-judged interference with this effort of Nature. How often people do their utmost to check vomiting, when the proper treatment would be to encourage it, or, what perhaps is better, to let it alone.

When the offending substance has got beyond the stomach, into the bowels, Nature does not give up the contest, but the effort for expulsion is exerted in a different direction. By an increased secretion from the mucous membrane, so as to wash out the bowels, and by an increased action of the muscular fibres, the offending matter is carried onwards and expelled as soon as possible. This is the history of many bowel complaints; here, too, you will see the impropriety of rash endeavours to check Nature's operations.

But let us suppose that the poison has got still farther than either the stomach or bowels—that it has been absorbed into the blood. Even then, Nature is not vanquished.

Intoxication from alcohol is a state of blood-poisoning with which you are all familiar. In it, the alcohol, being absorbed from the stomach and bowels, is carried into the blood, and, whilst there, disorders the function of almost every organ of the body. We see its action on the brain by the disturbance of the intellect—on the spinal marrow by the irregular action of the muscles. It benumbs the sensations, and alters nearly all the secretions. If this state were to continue for life, what a serious matter it would be! And so it would continue, if Nature had no means of getting rid of the poison. Any alcohol remaining in the stomach might be removed by the stomach-pump, or an emetic; but science teaches no way of removing the alcohol circulating in the blood, and it is that which produces the disorder. If any one, for the first time in his life, were to see a person drunk, he would think him labouring under a serious malady; and if told that it was caused by a poison circulating in the blood, which no art could remove, he would think it a hopeless case. But it is not so. We know from too great familiarity, that the malady is curable, and that it is so because Nature takes measures to expel the poison by the lungs—by the skin—by the secretions, till the blood is restored to its former purity.

In a similar way, other poisons are removed from the blood. Sometimes for medical purposes we introduce mercury or arsenic into the system, where it produces great derangement, which would be fatal if continued. But Nature, in its own way, gradually removes the poison.

You will observe that in all those instances where the poison has been purposely introduced into the system, Art can do very little for its removal. But although Art is powerless, or nearly so, Nature is all-powerful. In alcohol poisoning it is removed in a definite period—a few hours removes the most of it, and a few days removes all

trace. Mercury and arsenic take a longer time; but still they are ultimately removed.

There are many diseases which appear to be blood-poisonings. Typhus fever, scarlet fever, small-pox, measles, hooping cough, and probably all epidemics, are of this nature. Now, if you consider how Nature conducts herself in those cases where we purposely introduce the poison, you will come to understand how she also removes those other poisons we are now speaking of. You are familiar with the fact that Nature, unaided, often does remove these poisons. Many mild cases of measles, scarlet fever, and hooping cough, are left to Nature, and in a definite period are cured. You are not so well aware, because you do not so clearly see it tried, that, even in severe cases of these complaints, Nature is sufficient also for their removal. But medical men know well, that even in the severest cases, if curable at all, it is chiefly or entirely Nature that performs the cure. Medical skill, in such severe cases, may do much to aid Nature, or rather to prevent her efforts being thwarted, and so may conduce to the cure; but it is Nature's powers alone that removes the poison from the system, and repairs the injuries it may have effected.

You are now prepared to understand me when I say that nearly all diseases are caused, either by some injury to the solid materials of the body, or to some poison in the blood; and, from what I have said, you will see that Nature has a great power in restoring the one and in removing the other. It requires, however, much intimate acquaintance with the subject to know the wonderful extent of this power. Medical men alone can have anything like an adequate idea of it. It is not confined to trifling injuries, although we are apt to think so, because it is only in such that we trust to it alone. The same process which heals a cut on the finger, heals also the stump of an amputated thigh; an abscess in the chest is

cured by the same natural process as a whitlow; and most of our fevers and many other maladies are removed in the same way as intoxication.

I have now endeavoured to give you some idea of the healing power of Nature—by no means a complete one, but such as, I hope, will enable you to understand me when I say that this power is in operation in every disease, at least in every curable disease, and that in every cure it performs the chief part. I do not say that it is always successful, far from it. In spite of it the patient often dies, or the ailment degenerates into some other. But in most cases, even when the cure is not ultimately effected, still Nature's efforts are in operation.

You must now see of how much importance it is that we should have a knowledge of, and a belief in, the healing power of Nature. More especially is this knowledge necessary to the medical man. In the treatment of every disease the efforts of Nature must have a powerful influence. If a physician knows what these are, and how they will operate, he will endeavour to take advantage of them; like the mariner who shapes his course to catch what he knows to be the prevailing wind.

I have already alluded to the difficulty that medical men have in acquiring a knowledge of Nature's powers. A young man, whilst studying his profession, never sees Nature entirely unaided, and, being unable to distinguish what part of the cure is due to Nature and what to the means he sees employed, he is prone to exalt Art at the expense of Nature. When he enters upon practice, confident in the strength of his armour and length of his weapons, he has no doubt of success—he expects every ailment to fly before him, like Apollyon before Christian. But soon he is sadly disappointed; case after case occurs which will not yield, at least in the way he expects. He might get on well enough if he would think nothing of the matter, and take it for granted that all recoveries are

cures; but reflection tells him that often the manner of recovery is not what the treatment should have produced. Thus he loses confidence in his weapons—he becomes disheartened, and has serious thoughts of abandoning his profession. But with all this, his patients do not die oftener than those of other people. Indeed, a great many get better; and, what is more, he gets the credit of curing them, and that, too, in those very cases where he had been most disheartened with the result of his treatment. He now begins to have an adequate idea of the healing power of Nature; and then he observes with surprise, what before he had paid no attention to, that every medical author of eminence dwells strongly on this power of Nature. Then he begins to see the force of such passages as these from Sydenham, the oldest and best of English medical writers: 'Nor do I think it below me to acknowledge, with regard to the cure of diseases, that when no manifest indication pointed out to me what was to be done, I have consulted the safety of my patient and my own reputation most effectually by doing nothing at all; for whilst I carefully attended to the disease, in order to cure it in the best and safest manner, the disease either went off gradually of itself, or came to such a state as showed what medicines were to be used to remove it. But it is much to be lamented, that abundance of sick persons are so ignorant as not to know that it is sometimes as much the part of a skilful physician to do nothing at all, as at others to exhibit the most effectual remedies; whence they not only deprive themselves of the advantages of a fair and honourable procedure, but impute it either to negligence or ignorance; whereas the most illiterate empiric knows how to heap medicine on medicine as well as the most prudent physician, and usually does so in a much greater degree.' Again: 'But when the fermentation neither rises too high nor sinks too low, I leave it in that state without prescribing any medicines,

unless forced to it by the importunity of the patient or his friends, and then I direct only such as may please without prejudicing.' An ancient and eminent Spanish medical writer says: 'There are many cases, as there is a stage in every case, when Nature requires only to be assisted, and not guided and controlled; and it often infers greater skill, as assuredly it demands not rarely greater courage and greater honesty, to desist from interference, than to persevere in accumulating remedies.'

The young practitioner, at this stage of his progress, is also surprised to find that all thinking medical men with whom he is acquainted, hold views similar to what he is now acquiring; that they, like himself, have by experience had their reliance on remedies greatly diminished, their confidence in Nature greatly increased.

Now comes a great and important, because a practical change. As he studies and endeavours to foretell Nature's processes, he finds that these are often checked, thwarted, or entirely changed, by indiscretions of the patient. A broken bone is kept from uniting by occasional motion of the limb, until the efforts of Nature are exhausted: a wound, either by motion of its edges, or the application of irritating substances, is prevented from healing, and changed into an indolent ulcer. Internal ailments are procrastinated, or changed into organic diseases, by similar indiscretions. Then he sees the necessity for watching, protecting, aiding, and guiding Nature's operations. And now he is astonished at the amount of good he can do, often by what appears the most trifling means. Formerly, when he endeavoured to cure disease entirely by the rules of art, he was disappointed and disheartened, because he was attempting to do what was impossible; but, when he is thus led to make Nature's healing powers the foundation of his medical practice, he finds that in every case he can be of the utmost service, and instead of being disheartened and disgusted, he is every day

more and more convinced, that, as a handmaid of Nature, his is indeed a noble science.

I shall now endeavour to point out what is the province of the Medical Art, and what are its powers in the cure of disease.

There are many diseases in which the natural tendency is towards a cure, and where, in all probability, Nature will be sufficient to effect it. But it does not follow that, in such, Medical Science is of no use. On the contrary, it is in them that the judicious physician often has his greatest triumphs, not perhaps in the eyes of the public, but in his own estimation.

Nature's processes are easily thwarted, and often are so by the ignorance of the patient. For instance, you can easily understand how a broken leg may be prevented from healing, and at last rendered incurable, by motion of the broken ends of the bone. Here Art steps in, puts on splints, and renders motion impossible. Rest, at least to the greatest possible extent, is quite as necessary to the healing of an inflamed lung; but the ignorance of the patient prevents his knowing that, every time he speaks, every movement of a muscle more or less excites the circulation in the diseased organ. Here the physician forbids speaking, and confines the patient to bed, or, what is better, prescribes tartar emetic, which probably does good, chiefly because it renders the patient unwilling either to speak or move, and so enables Nature to perform her work. A cold will in general run its course favourably; but we know that, during its progress, the slightest exposure, such as would be harmless at other times, brings on a new congestion, and renders it necessary that the healing process should begin again. The physician gives such advice, or prescribes such treatment, as will prevent such exposure, and the patient is cured.

I have selected for illustration diseases that are familiar, but the same is true in a great many severe and

often fatal disorders, such as fevers and inflammations of important organs,—namely, that their natural course is towards a favourable termination; but this is often retarded or prevented by ignorance or indiscretion of the patient. And medical knowledge can do much to prevent this, and so, to an important extent, contribute towards a cure.

But this is not what people in general consider as curing a disease. They imagine that the doctor should at once, by means of his art, remove or diminish the disordered actions going on. Merely giving Nature fair play, or removing obstacles, is, in their eyes, no cure at all. The common idea is, that for every malady there is a particular remedy or kind of treatment, which will, without regard to Nature's operations, effect a cure, and that medical skill consists in knowing the fitting remedy for each disease. Now, this might be all very well if it were only true; but it is not, as there are scarcely any diseases, perhaps none, that can be cured in this way.

Some will say that I am lowering the value of Medical Science; but it is not so. There is too much that is good and valuable in Medicine for it to be injured by the truth. It does not take from the credit of a farmer, that he cannot make his crops to ripen in winter. It is the seasons that must make his grain to spring, to grow, to ripen; yet we know how much a skilful farmer can do to aid and foster Nature. We do not say a mariner is unskilful because he cannot lay the storm. At one time, in his ignorance, this was what he attempted to do. He vowed pounds of candle to the Virgin, or to the Saints; and often he thought he had in this way cured the storm, and saved his vessel. But now enlightenment has dispelled such notions. The seaman knows that he must trust to the natural buoyancy of his vessel, and to the known fact, that, if he can only carry his ship through it, the storm will run its course, and come to an end. He does not, however, fold his arms, and say, be-

cause he cannot lay the wind, there is nothing for him to do.

A ship is sailing smoothly on. All on board are at ease. The captain is seen to look anxiously in a particular direction. He takes the telescope and looks again, and then firmly gives a few orders. Immediately all is bustle—everything is cleared—the sails are furled—the guns are firmly secured—the pumps are made ready for use. The passengers, perhaps some of the sailors too, look with astonishment at all this; they see no cause for so much preparation,—probably they think it done merely to increase the captain's importance. By-and-bye, however, they see a darkness in the horizon rapidly increasing, and soon all are aware that a storm is approaching. Down it comes with a crash that would have carried every mast overboard, had the sails not been closely furled. The vessel is on her beam ends; but everything is firmly secured, and she soon rights again. All is now consternation; even the sailors are alarmed. There is only one that is calm, standing beside the helm; he gives his orders composedly. One instant of confusion or wavering on his part—the ship gets broadside to the storm, and all is lost; but he holds the rudder, and she rides nobly on. Some of the passengers now are vexed because he looks so calm, and is doing so little. Some bustle now, throwing the cargo overboard, anything like action, would be a comfort to them. But he merely stands with the helm in his hand, and they think him indifferent to the danger. Suddenly a mast goes overboard, the vessel lurches, and will not steer. A word is said, and in an instant every cord is cut; the mast is clear, and she rights again. A whisper goes round, 'A leak is sprung.' Still he is calm. The pumps are manned, and for many a day and night these pumps are wrought. It takes every hand and every effort to keep the water down; the slightest confusion or insubordination, and the vessel sinks. But the

kindness, the calmness, the decision of the captain, keeps every man to his duty. Every one now is aware of his value, there is no grumbling now. With great labour and much anxiety, the ship works on her way, and at last reaches her destined port, much shattered it is true, but the valuable cargo saved; and a few weeks in dock will put her all to rights.

Was there here no value in nautical skill? And yet the captain could not cure the storm.

Imagine that you are a shipowner, and want a captain to command your vessel. A person applies for the situation who tells you he has never studied navigation, and has had no experience, that all that kind of thing is old-fashioned and unnecessary, that the only source of danger in storms is the use of too much tar, and the sailors not knowing the way to lay the wind. But he would use tar in infinitesimal doses of the thirtieth dilution, and lay the wind by the infallible and philosophical maxim, 'Similia similibus curantur,' that is, by whistling or blowing in the same direction; after which, if you wait long enough, the wind is sure to cease.

Are you likely to employ such a person? Yet this is exactly Homœopathy.

Another comes. He will take charge of the ship; he is not afraid of any storm, for all that is necessary for the safety of the vessel is to wash it well with cold water, outside and in, five or six times a-day, to keep the sails always wet, and to wrap a wet sheet round the mast. That is Hydropathy.

As an instance of what may sometimes be done by attention to little things, I may mention a case. A child had been labouring under bronchitis. The disease having reached the latter stage, there was great difficulty in breathing through the accumulation of mucus. In such a case it was of the utmost importance that the air breathed should be pure, so that as little as possible might

serve to support life. One evening I called, and found in a small apartment, not four yards square, with a large fire, ten persons assembled to see the poor thing die. The child was panting for breath, and appeared to have not many minutes to live. I cleared the house of people, opened the door and window, and sat for two hours to prevent the room being again filled. The immediate relief to the poor child was marvellous. I am convinced I saved that child's life; but I got no credit. How different it would have been had I at the same time given it a homœopathic globule.

I do not mean to teach that all that Medical Art can do, is to watch and guide or modify Nature's processes. Sometimes, although seldomer than people think, much good may be done by Science changing entirely Nature's operations. A thorn in the flesh would ultimately be cured by Nature. It would beal out; but this would be a painful, a tedious, perhaps a dangerous process. The surgeon extracts the thorn; the case is now a simple wound that heals in a day. A limb is injured, so that its only way of healing would be by mortification and suppuration. The surgeon amputates the limb, and so prevents the great risk of death during the mortifying and suppurating process. Something injurious is swallowed, which, by exciting a bowel complaint, would ultimately be carried of, but with much distress, perhaps with danger. The physician prescribes an emetic before the offending matter has left the stomach; it is thrown off, and all is right. A poison is in the blood; but Nature's powers are dormant. The physician gives a medicine that rouses Nature's energies, and both poisons are thrown off together. A person exposed to cold is seized with shivering and difficulty of breathing,—there is congestion of the lungs; if this continue, lymph will escape from the congested vessels, requiring inflammation of the lungs for its removal. The physician, by bleeding or some other

means, relieves the congestion, checking in the bud what would have been a very dangerous illness.

In many ways of this kind the medical man may interfere with the best effects, without regard, and often in opposition to Nature. The experienced physician, however, will always be cautious in interfering with or checking Nature's efforts; but, when he does so, he will do it decidedly and with effect. I know of nothing so hurtful as a timid, hesitating, undecided active treatment. It is the duty of the medical attendant, after full deliberation, to decide whether he will leave the case, more or less, to Nature, or if he can do better by active measures. This decision is often the most important and difficult part of the physician's duty; need I say that, in it, he should be uninfluenced by the prejudices of the patient or his friends: yet how difficult it is not to be swayed by the knowledge that, if he adopt an active treatment, he will give much more satisfaction to the patient and those about him.

There is a period in most severe diseases, when the situation of the physician is often a very painful one, when, in spite of every effort, the patient seems hurrying on to the grave, with little hope of respite. The friends are most anxious for something to be done; and yet, perhaps, the only remaining chance of life is by leaving undisturbed the wonderful curative powers of Nature, which are often effectual in snatching from the very jaws of death. It is a great mistake, in such a case, to suppose that when man has ceased his puny efforts, the patient is left unaided, seeing that, till the last moment, curative measures are in operation a thousand times more efficacious than all the resources of art.

Allow me, then, to impress upon you that there is often, very often, greater skill and wisdom, and far more courage, in refraining from interference than in active treatment.

There is another way in which medical skill is useful, but in which it is often thwarted by the impatience of the patient, to wit, by letting the disease alone, but by rousing and strengthening the weak or exhausted healing powers. To illustrate my meaning, I shall relate a case.

A poor man had long been unfitted for his work by ulcers in the legs. The case had been simple at first; but the cure had been prevented by want of care, till it had become chronic, Nature's efforts having been thoroughly exhausted. He had been at many doctors, and had tried all the Holloway's Ointments and other infallible remedies that could be had. When he applied to me, I found that, for a long time, he had been half-starved; and I was convinced that, till there was more strength in the system, it would be impossible to excite any healing action. With great difficulty, I got for him a larger allowance from the Poor's funds, and some of his friends assisted him. To his surprise and delight, I insisted on his being idle, and on his being fed with beefsteaks and porter. As soon as the system got into good condition, the ulcers began to heal. The progress was slow, and I had many a battle to fight to keep up such treatment; but it was ultimately completed. The ulcers healed, and the poor man was restored and fitted for his work.

I may as well relate the rest of the story, although it does not bear on the present point. Of course, I was pleased and proud of what I considered a triumph of rational Medicine. Half a year afterwards, passing the door one evening, I stepped in to ask how he was getting on. He was well and hearty. Expecting some thanks or praise, I led the way by looking at the legs, and then, expressing my satisfaction, I said that I deserved some credit for the cure. 'Weel, doctor, I maun tell you what it was that cured my legs, and it will maybe be usefu' to ither folk. It was just moose wabs (Anglice, spiders' webs). Jenny Donald advised me to try them, and they cured

my legs at ance.' 'But don't you think the beefsteaks and the porter had anything to do with the cure?' 'Ou! the steaks and porter were grand for the stamach.'

Work on, noble science! Shower down your blessings on ignorance and prejudice; but be assured that moose wabs and homœopathic pills will get all the credit.

Another illustration of this treatment is that of consumption by cod liver oil. There can be no question of the benefit of this treatment. But medical men know that it is not by any curative property, or by purifying the blood, as it is called, but by nourishing the system, and so strengthening the curative powers of Nature. It is fortunate that this nourishing food is contained in bottles, and is rather nasty, and so it assumes the form of a drug. Had it evidently been merely food, it probably, with all its merits, would never have obtained so much of public confidence.

Sometimes the curative operations of Nature are themselves the source of danger. These operations are generally and necessarily accompanied by pain and swelling, which unfits the organ for its functions, and, if the organ be a vital one, this may cause death. Hence it may be necessary, although we know that these operations are leading towards a cure, to endeavour to moderate or modify them, and we can often do so with good effect.

There is a class of diseases regarding which I have as yet said nothing; in which Nature appears to make no effort to effect a cure, but which go on naturally to a fatal termination. Such diseases are very few in number. I am afraid that in them Art is quite as powerless as Nature. It may be different when the disorder can be removed by the surgeon's knife, before the blood has become contaminated; but, except in this way, I know of no complaint in which Nature makes no curative effort that can be removed by Art. For such, however, we have an immense number of infallible remedies, which, I

am sorry to say, are wonderfully successful—in putting money into the pockets of quacks.

It is some compensation for the many difficulties and disappointments of medical practice, that we can so often soothe pain, and procure to the weary sufferer, 'kind Nature's sweet restorer, balmy sleep.' It is one of the evil results of the false notions of Medicine that prevail, that they prevent science from getting so much credit as it ought for this part of its duty. How often it happens, that, whilst a medical man gives immediate relief from suffering, perhaps substitutes refreshing slumber for 'tossings to and fro till the dawning of the day,' this great benefit is entirely overlooked, because a cure is not effected in the time and in the way that those ignorant of the limited power of medicine expect.

Even when a cure is not performed, it is often a great blessing to the patient, and a comfort to his friends, that we can relieve the sufferer and smooth the path to the grave.

We may reasonably hope that this power is yet capable of great improvement. In our own day we have had the discovery of chloroform, the safest, most powerful, and most manageable of sedative or anæsthetic agents. This discovery is a boon for which suffering humanity owes a debt of gratitude to science. How strange, that whilst the inventor of destructive implements of war is loaded with wealth and honour, such benefactors of mankind as the discoverers of vaccination and the power of producing anæsthesia are rewarded only by posthumous fame.

There is another province of Medical Science which is yet in its infancy, but which, I hope, will ere long attain a stalwart growth,—namely, that of preventing disease. Of late years, rapid progress has been made in public hygiēne, and much good has been the result. But I do not see why we should not have private hygiēne as well, or why, as the State now employs medical men to devise means for preserving health, private individuals and

families should not do the same. There are many circumstances in which such advice would be useful: in the building of houses, in regard to situation, drainage, and ventilation—in dietary, clothing, habits, management of infants, and in many other things, the guidance of medical men would be of the utmost advantage.

The present way of paying medical men is a great bar to any improvement of this branch of Medicine. Our celestial neighbours are far more sensible than we are in this respect. They look upon it as one of the absurdities of the English barbarians, that they pay their doctors for keeping them ill, instead of, as they do, paying the doctor whilst well, and stopping the payment whenever they are sick. Without quite adopting this system, which, however, has good sense to recommend it, we might with great advantage borrow at least a leaf from their book. If families or individuals were to arrange with their medical attendants to pay them a fixed sum annually, I have no doubt it would lead to the family physician being often consulted in regard to the preservation of health, and this, again, would lead to increased study of this subject by medical men; and the result would be a great diminution of disease and suffering.

I hope to see the day when a physician's talents will be judged of, not so much by the number or rapidity of his cures, as by the rarity of illness among his employers.

From what I have said, I hope you will now be able to understand what is a puzzle to many, namely, the success of quackery.

In our day, we have had a succession of highly popular quack medicines for the cure of every ill to which flesh is heir;—Solomon's Balm of Gilead; Morrison's, Parr's, and Holloway's Pills; besides a multitude of infallible cures for particular incurable diseases. We have also had our scientific quackeries, Homœopathy, Hydropathy, and Mesmerism.

It was the same in former times. Our grandfathers had the Elixir of Life, Berkely's Tar Water, Perkins' Metallic Tractors, St John Long, and a host of others. Each of these had its day, and was wonderfully successful in drawing money. But, although infallible, they only had their day. Cancers continued to be incurable, people obstinately continued to die, and each quackery, after a few years of wonderful success, was succeeded by some other.

But what is the secret of even the temporary success of nostrums which have uniformly proved to be totally worthless? It is this, that people are so entirely ignorant of the healing powers of Nature. All of these quackeries gained their popularity by appealing to their success. The patient took the medicine; he got better, and it got the credit. But it is a fact, that if you take every kind of disease, trifling as well as severe, at least ninety-nine out of every hundred would get better by the power of Nature alone, even in spite of injudicious treatment. So, if by puffing advertisements, or the recommendation of credulous people, the hundred patients are prevailed upon to take the remedy; if ninety-nine of them get better, which they are sure to do; and if all of these recoveries are ascribed to the medicine, which they are sure to be, you can easily understand what an amount of popularity will ensue, more especially if the quackery be something new. For now, as of old, there are many who, like the Athenians, 'spend their time in nothing else but either to tell or to hear some new thing.'

But to find the truth, I think we have only to study the past. We find hundreds of quackeries which have lived their brief day, and been as highly extolled as any of those of the present time, and yet they are now forgotten, and their dupes laughed at; and so it will be with their successors.

It may be, that some good is done by amusing the

patient, whilst Nature cures the disease; but how much more like reasonable and intelligent beings would it be to be amused by truth alone, which, if rightly understood, is far more capable of inspiring hope and confidence than all the quackeries that have ever existed. These observations are quite as applicable to quackery within the profession. I admit that medical men do (or rather I should say did, for it is rarely done now),—I say they did sometimes give medicines, merely to please the patient, or to inspire him with confidence. But I hope the time approaches, when all quackery, within as well as without the profession, will be banished by the increased intelligence of the public, and when a blind superstitious trust in every humbug will be succeeded by an enlightened confidence in the wonderful power of Nature, and in the aid that true Science, which must always have Nature for its foundation, is capable of bestowing.

Allow me, before concluding, to say a few words to prevent misapprehension of my meaning.

In the first place, I beg you to understand that the views I have endeavoured to enforce are no mere whim or hobby of my own, but are held by the medical profession in general. In a former part of this lecture, I made some quotations which showed that such views were held by the greatest and best of former days. I will now quote to you a passage from a modern writer.

Mr Hilton, of London, in a lecture lately published in the *Lancet*, says: 'It would be well, I think, if the surgeon would inscribe upon his memory, as the first professional thought which should accompany him in the course of his daily occupation, the physiological truth that Nature has a constant tendency to repair the injuries to which she may have been subjected, whether these injuries be the result of fatigue, or exhaustion, or inflammation, or of accident; thus presenting to the consideration of the physician or surgeon a constantly recurring and

sound principle to guide him in his practice. I feel confident that, however high may be our acquirements, however deep and minute our researches into the phenomena of disease, however great our experience, each and every one of us, if candid and truthful, will admit that he has not the power of directly adding one single atom to the living tissue. Under the most favourable circumstances, all that any of us can accomplish in this direction is to give rest to the parts, and enable Nature, through her own efforts, steadily to pursue her inherited destiny; whilst we, as Nature's willing servants, act in the hope that by the use of appropriate mechanical applications, aided, if necessary, by soothing medicines and by the use of properly adapted diet, we may facilitate her efforts to repair the injury she may have sustained.'

In the second place, I beg you will not misapprehend my meaning by supposing that it has been my object to depreciate Medical Science. I have endeavoured to impart a just idea of the powers of Nature. But you must not imagine, because one lecture will not enable me also to explain the powers of Art, that there are no such powers. Did your time and patience permit, I could easily show, that, whilst Nature must perform the chief part, yet it may be greatly assisted, and obstructions to its operations removed by judicious treatment. This assistance will always be most effectually rendered by those having the greatest knowledge of, and the greatest trust in, Nature's operations. And I beseech of you to remember, otherwise my lecture may be productive of much harm instead of good, that it is one thing for a medical man to leave a case to Nature, and a very different thing for a patient to do so. In the one case, it is to leave the disease to Nature, watched, protected, and guided by knowledge; in the other, it is to leave it to Nature, opposed and thwarted by ignorance. My object has been, not to encourage you blindly to trust in Nature,

but to teach you to have patience, forbearance, and confidence, when your medical attendant, with due deliberation, thinks it his duty to do so.

In the third place, I beg to state my reasons for bringing this subject before you. This I prefer doing in the words of Sir John Forbes :—

'The following are a few of the many ways in which the ignorance of the public, in regard to the several parts of Medicine which they are competent to understand, influences injuriously the conduct of physicians :—

'1. Ignorance of the natural course and progress of diseases which are essentially slow and not to be altered by any artificial means, often leads the friends of the patient to be urgent with the medical attendant to employ more powerful measures, or at least to change the means used, or to give more frequent or more powerful doses.

'2. Ignorance of the power of Nature to cure diseases, and an undue estimate of the power of medicines to do so, sometimes almost compel practitioners to prescribe remedies when they are either useless or injurious.

'3. The same ignorance not seldom occasions dissatisfaction with, and loss of confidence in, those practitioners who, from conscientious motives, and on the justest grounds of art, refrain from having recourse to measures of undue activity, or from prescribing medicines unnecessarily, and leads to the countenance and employment of men who have obtained the reputation of greater activity and boldness, through their very ignorance of the true character and requirements of their art.

'4. It is the same state of mind that leads the public generally to give ear to the most ridiculous promises of charlatans ; also to run after the professors and practisers of doctrines utterly absurd and useless, as in the instance of Homœopathy, or dangerous, except in the proper cases, as in the instance of Hydropathy.

'It cannot be doubted that juster views of the nature

of Medical Science and of Medical Art, if once prevalent among the lay public who are well informed, will, like all other knowledge, eventually descend to those who are not so; and thus the progress of rational medicine will be facilitated, and the hands of those professors strengthened who have the courage to advocate and practise their art conscientiously, however opposed to vulgar prepossessions and prejudices.

'When laid open in its native truth and simplicity, Medicine will be found, like other arts and sciences, to possess nothing that is very mysterious or difficult of comprehension, nor anything that should prevent its principles at least from becoming one of the subjects of ordinary study with men who have received such an education as enables them, as amateurs, to derive profit and enjoyment from analogous studies, such as Chemistry, Physics, Geology, and Natural History in all its branches. To such men, Anatomy and Physiology, and the principles of Medical Science and of the Medical Art, will be found to yield instruction and amusement of the highest and best kind, to say nothing of the great advantage such knowledge must be to themselves and friends, not only in regard to the preservation of their health, but in regard also to their conduct when afflicted with disease.

'Even a moderate amount of knowledge of the general nature of diseases, and of the mode of operation and powers of the Medical Art, will make a man a better patient; make him more content with the treatment prescribed, be it energetic or inert; and make him repose greater confidence in his physician.'

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