

at bed-time, the patient submitted to this treatment has improved in health, in so far as the condition of the intestinal secretions can be taken to be a proof of the fact; but I am by no means satisfied that the time and the place have not had quite as decided an influence upon the patient's condition as the Sea-water introduced into the stomach.

In order to drink Sea-water, persons have usually been taken to the sea-coast, and this at a favourable season of the year, and to those two circumstances, any good which has resulted from the practice may be attributed, I think, with more fairness, than to the daily ingestion of half a pint, or a pint of salt-water. It is only to a very limited extent that the drinking of salt-water has prevailed during the present century, and we have no exact observations of the results, except in a number of instances so small as to be insufficient to justify us in expressing any decided opinion of its value.

There is no doubt that the effect of sea-bathing is to exercise upon the surface of the body a powerful tonic influence; to improve digestion and respiration, to give more vigour to the circulation, and in this way to improve nutrition;—to give a predominance to the arterial over the venous and lymphatic systems, and thus to give to the body generally, a power to resist successfully the inroads of many chronic diseases. And this action is especially necessary in lax lymphatic habits, whether Scrofula be actually present or not, but though I admit that such effects do frequently result from sea-bathing, I doubt whether the effect has been produced in virtue of any specific agency not possessed equally by simple cold bathing.

My opportunities of observing the immediate effects of sea-bathing upon scrofulous cases have been very scanty, but I have had ample means of observing the effects, upon such cases, of sea-side residence, with its accessory advantages, and my mind is very strongly impressed with the conviction, that the benefits derived from it are not greater than might be obtained from a change to a pure air and the use of the simple cold bath in an inland situation. We will therefore consider the question of sea-side residence, with all its accessories whether bathing, water-drinking, or otherwise.

Enlarged glands may disappear, sinuses may dry up, and ulcers may heal during a sea-side residence; but with the weather of the months of May, June, July, and August to act upon them, this result might be expected from any change in the fine season. But that is not the season when we most want help in Scrofula; it is that of December, January, February, and March that exercises so injurious an influence on scrofulous cases; and those are not the months when invalids usually visit the sea-coast.

Mr. Hamilton, no mean authority, says, "Sea-water, taken internally, and sea-bathing, have long been in use for Scrofula as well as for other diseases; and on account of its supposed efficacy, several towns, situated on the sea-shore, have for many years been the fashionable places of resort in the summer months. Together with the drinking of the water and bathing, the mucilage contained in the pods of the Sea Wrack (*Quercus Marinus*), for external friction on the glands, and the black ashes of this plant have been strongly recommended by Dr. Russell, under the name of *Æthiops Vegetabilis*, in this disease; and other marine substances, as cuttle-fish-bone, coralline, marine shells, burnt to lime, and other things of doubtful properties; whilst the breathing of sea air has been supposed to promote the efficacy of those remedies.

"I must confess, that I have my doubts as to the Sea-water's possessing powers in a superior degree to any other medicines in Scrofula; nor do I think that it merits the virtues given it by Russell and Speed. My reasons are the following, however heterodox they may appear; but truth is my guide.

"I have long lived in a sea-port town, of great trade, and the haven, from the town to the opposite side, is at least half a mile wide. A large body of Sea-water flows up the haven twice in twenty-four hours, and with the tide, we may suppose a very large share of sea air; and during the summer months, sea-bathing is constantly used, when the time of high water will admit of it, by men of all descriptions; and many of the boys are seldom out of the water in the daytime, except at school hours, all summer. Yet it is no less strange than true, that there are nowhere more distressed victims to Scrofula to be met with than at Lynn; and in no inland town, within my knowledge, which extends at least

thirty miles, did I ever see so bad cases of this disease as in this town, in a course of more than forty years' practice."

I am by no means convinced that the sea-side is more desirable for the residence of persons suffering from Scrofula, than healthy inland situations. I have been accustomed to send scrofulous patients to the sea-side, because it is usually a thorough change of air, and on their return home, I have commonly found a certain improvement in their general health; but the glandular tumors, though reduced, were usually still present. I do not mean to say that in a majority of the patients sent, the tumors still remained, but this has certainly been the case in a large minority; and even in those patients where the cure has been apparently the most complete, the tumors have frequently re-appeared during the following winter or spring.

If a child be sent from home where every care is lavished upon him, the good effects of change are often not very decided. I have known a three months' residence at the sea-side, leave such a child very much where it found him. But if a child be sent from the wards of a Hospital, or a Poor House, where he has been languishing for six or nine months, the amount of good derived from a commodious sea-side residence is sometimes very considerable. And yet, even under these circumstances, care must be taken in selecting the objects for this treatment, or disappointment may be experienced. Some years ago, the Directors of the St. Marylebone Infirmary desired to be informed, whether the Medical Officers considered that the amount of good to be derived from a residence at the Margate Sea Bathing Infirmary, was sufficient to justify them in annually incurring a considerable expense, for the purpose of procuring for scrofulous patients the necessary number of beds in that establishment. We had an impression, that the sea-side, with its accessory advantages, was of great service in such cases, but that opinion did not rest upon any well ascertained facts. I therefore determined to avail myself of the first opportunity which might be afforded me for making a more precise observation, and soon afterwards, 9 cases were selected for the trial. The condition of the patients was carefully noted; 4 presented long-standing glandular swellings, which had resisted ordinary treatment; 2 had old fistulous communications, opening upon

broken-down scrofulous glands; these sinuses had been open for many months, and no doubt the degenerate glandular structures had been more or less completely broken down and evacuated; 3 cases presented scrofulous disease of joints; in one, the elbow, and the last joint of the left indicator finger, were the seats of the disease; in another, the elbow only; in the third, the hip was affected. The patients remained at Margate several months; on their return, their condition was carefully ascertained. The glandular tumors had very nearly, but not completely, subsided; of the sinuses, 1 was dried up, the other nearly so; in the former 2 cases of joint affection, no amelioration was experienced in the local disease, but the general health was improved; the third patient after remaining at Margate some weeks, came home to die.

The 8 surviving children had returned home at the close of the Margate season. In the succeeding November, 3 of them were again under treatment; 1 with glandular tumor, which had re-appeared, 1 with a re-opened ulcer, the other with a single sinus, still discharging. Those results are, I conceive, in perfect accordance with the experience of careful observers, and certainly they do not tend to support the prejudice which exists in favour of the superior efficacy of sea-side residence in cases of Scrofula. That those ganglia in which scrofulous matter had been deposited, should continue foci of irritation is natural, because I know no satisfactory evidence that scrofulous deposits are ever absorbed. They therefore continue to exist, and like any other foreign body, may excite new irritation, from very slight causes. That a sinus should heal when properly treated, provided all the scrofulous deposit be removed, is to be expected; but whether the sea-side did much to determine the subsidence of irritation around the gland in one set of the cases above noticed, or to heal the fistula in the other, is with me a matter of doubt.

We have no proof that people habitually residing at the sea-side are more free from Scrofula than those who live inland; and it is matter of observation, that when affected with Scrofula, they derive as much benefit from inland change, as is experienced by inland patients from a change to the sea-side.

If we refer to the Mortality Tables,* we find that in the Towns

* See Appendix.

of the coast, the disease prevails to the destruction of life, to a greater extent than in many inland districts. I do not, therefore, regard the sea as exercising a special curative influence over Scrofula; I do not assert that a change to the sea-coast is without beneficial influence, but I conceive that such change exercises no greater influence over the disease than would be afforded by a change to any inland situation, where the air is pure and dry.

As to simple *cold bathing*, there is nothing better established, than that long-continued cold is one of the most debilitating agents in nature; and that cold, prudently applied, for a short time, is one of the most tonic agents that can be employed. It is in the latter form that it is used in Scrofula. The temperature of the water, and the time of immersion, should be so graduated, as to be followed by decided re-action. When so employed, there is scarcely any person, however debilitated he may be, who may not use the cold bath with advantage; but it must be borne in mind, that in scrofulous patients, the desired re-action is less certain than in healthy persons; and if this be not certainly obtained, the bathing should be discontinued.

Bielt had much confidence in *vapour baths* in scrofulous cases; and the results, under his management, were certainly very encouraging. He had a room fitted up, in which 50 persons could be arranged at the same time. The heat was gradually raised until it arrived at 100 Fahrenheit, when the body soon became covered with perspiration. The heat may be carried to 115, or even 130, but many persons cannot bear with comfort a higher temperature than 115.

I have never employed vapour baths upon this system in the treatment of Scrofula, and I am not therefore in a position to speak with any authority on the subject.

MINERAL WATERS.

Certain Mineral Waters are regarded as possessing antiscrofulous virtues; there are many such in Great Britain; and there are few countries in which wells of great repute, for the cure of Scrofula are not found. This is shown in Carrère's work; for in his time, (1785), 1150 works had been published on the virtues of Mineral Waters.

In cases of Scrofula, the object of all treatment is to cause a predominance of the sanguineous over the lymphatic system, and by many persons it is conceived that sulphureous and ferruginous waters, by reason of their tonic and stimulating properties, very completely accomplish this object. The opinion that improvement in the condition of such patients does very commonly follow the use of such waters is by no means ill-founded. The complexion improves, the strength is increased, the digestion is better performed, the tumid belly is flattened, ulcers and sinuses dry up. But years may pass before the disease is eradicated, and that circumstance justifies the remark of Bordeu, that although he had known great improvements to result from a sojourn at a Mineral spring, "by some fatality it has rarely happened to me to see glandular tumors completely resolved by the waters of the Pyrenees."

Still he attributed to such waters a powerful curative agency in the treatment of Scrofula. In speaking of them, he says, "Every thing contributes to produce good effects—the journey, the sanguine hope of relief, the varied nourishment, the air which is respired and which penetrates the body, the change in habitual sensations, the making new acquaintances, the little excitement occasioned by it, the liberty enjoyed, completely changes the habits and thoughts of a town life. Yet, although I do not deny the powerful influence of such things, I believe they are only auxiliaries. It is certain, however, that in a majority of cases, the good derived from the waters results from their medicinal action, since many of them, when carried to great distances, produce such advantageous changes in the system, that they cure obstinate affections, which had resisted the most rational treatment."

Many persons have maintained that the change of place, the change of air, and of climate were the sole modifying agents. Others have maintained that the good, which they could not deny, is the result of the system of taking a certain quantity of water, no matter what may be its composition. No one can deny, but that pure water is a powerful solvent, that it acts upon the circulating fluids, and facilitates the secretions. And it is very true that in many cases the temperature and chemical com-

position of mineral springs do not seem to account for their apparently very energetic curative powers. But we know that taken at certain periods, at the same temperature and in the same dose, the mineral water is lighter, more penetrating, and infinitely more easily digested than common water. Pertinent facts are, it is now said, so numerous, and so carefully observed, that the greater number of medical men concede to mineral waters a curative power independent of accessory circumstances; and also admit that particular virtues attach to particular though the curative element may be unknown, and in ferible and springs, appreciable only by its effects.

It is also now generally conceded, that Mineral Waters, according to their composition, impress upon particular parts of the system peculiar actions; thus, the sulphureous waters, Harrowgate, for instance, act particularly upon the lymphatic and tegumentary system. The saline, of which Cheltenham is an example, are more or less laxative, and affect the digestive tube. While the alkaline and ferruginous, act particularly upon the fluids of the body. There are however, still some people who ask: "Although it is proved that sulphur, carbonic acid, iron, neutral salts, and alkalies enter into the composition of Mineral Waters, how can the waters possess virtues which those substances do not?" Our answer is, that waters holding a certain quantity of bicarbonate of soda in solution, those of Vichy, for instance, are infinitely better digested and more salutary than a similar quantity of the same salt artificially dissolved in pure water. Ferruginous springs, also, which hold in solution but a very minute quantity of iron, will cure diseases which have resisted all sorts of preparations of iron when otherwise administered; so true is it that the substances taken from nature's laboratory, possess an energy that those of art never attain.

In the sitting of the Academy of Medicine of Paris, held November 22, 1842, a Report was made by M. Patissier upon the employment of the waters of *Forges-sur-Briis* in scrofulous diseases. The Minister of Commerce, who called for the Report, very shrewdly remarked: "It appears to me very remarkable that waters in which chemical analysis has not detected the existence of any active principle, should have produced cures, the reality of which is attested by enlightened and trustworthy medical men."

The first part of the foregoing paper describes the topography of the place, the second the physical characters of the waters, the third their chemical analysis, the fourth their medical properties; the fifth contains particular cures, ranged under the following categories: cases which have been cured during the use of the baths; cases in which there has been amelioration; cases in which the baths have cured the strumous affection, but not prevented its return; cases in which no influence, either good or bad, has been exercised upon the disease.

The whole of the cases brought under the notice of the Commissioners to substantiate the pretensions of the *Forges* doctors did not exceed 18; of which eleven were females and seven males. All had suffered long from scrofulous affections. Of these 18 cases, 6 were entirely cured; 6 others were much improved; 3 more were cured, but the disease soon reappeared; in three others no benefit was experienced, and the patients died.

Now with reference to these cases, upon which M. Piton has so far relied, as to conceive that they justified an application to the Government for its sanction of the Establishment, it must be remarked, in the first place, that but little time had been allowed for the occurrence of relapses, and that if the patients returned to their former way of life, relapse, in more or fewer instances, was not unlikely to happen. And further, it may be asked, did the benefits occurring during the residence at *Forges*, result from the intrinsic medical action of the water, or from the salubrity of the air, and the regimen employed in the establishments.

If bad air be, as some have supposed, a fertile cause of Scrofula, we can have no doubt that its influence might be materially neutralized by the pure air and unobstructed light enjoyed at such places as *Forges*. And whether bad air have any direct influence over Scrofula or not, there can be no doubt that a change to a purer air tends to improve the general health. But if we take the results, as communicated by M. Piton, to represent the average or ordinary curative influence of the waters of *Forges*, it is certain that equally favourable results may be obtained when no use is made of Mineral Water. And as the waters of *Forges* have not, upon analysis, exhibited any active principle, it may be questionable whether they act in any other way than as pure water, which