

each convalescent when discharged from this asylum. The particulars of this project were given by Mr. May to the Society for bettering the Condition of the Poor, about the time of its first origin; and I think it was delivered by myself to Count Rumford, who approved of several parts, proposed some amendments, and queries. Here the business has rested; but if any of your Readers wish for the whole particulars, drawings, &c. I will gladly deliver them over to him, together with any other information I may possess on this subject.

Soho Square,
March 21, 1801.

I am, your's, &c.

ANTHONY CARLISLE.

Observations on Pulmonary Consumption, and on the Utility of the Climate of Madeira for Phthisical Patients, addressed to a Physician in London. By JOS. ADAMS, M. D.

MY DEAR SIR,

BEFORE my departure from England I had collected notes on many subjects, which I conceived my leisure in this island would have enabled me to arrange. I need not tell you what I have compleated since my arrival; if it seems little for five year's residence, recollect that, healthy as this spot is, it has furnished me with some papers. At all events, you of all others should be the last to accuse me of indolence, since no man in the world is less disposed than yourself to appear unprepared before the public. It is much to be wished that the author to whom you refer me, before he had made up his book on Consumption, had made closer enquiries into what he only seems to hint, namely, the varieties of the disease. Perhaps, when this is accurately accomplished, instead of wondering that Consumption is found in most parts of the world, we shall find even the climate of Great Britain a remedy for some species of that disease. Not, I will admit, where ulceration has taken place, because a more equal temperature must be necessary, that the constitution may be as little as possible interrupted in repairing the mischief. We have now too many proofs of the resources of Nature, to doubt her powers in healing ulcerated lungs. This, however, can only be under certain circumstances; for if so important an organ has suffered to such a de-

gree as to prevent the necessary functions of life, the means of restoration are cut off, and the case must end fatally.

That what is called Phthisis Pulmonalis is known all over the world cannot be doubted; but the true English Consumption is, I believe, peculiar to cold, and chiefly to be dreaded in uncertain climates. It is worth while to mark the etymology of different countries. The Greeks gave the name *φθισις*, from the idea of corruption. Hippocrates, and his successors, found in the lungs of some phthisical subjects large collections of matter, which, as soon as the sac had any communication with the air, became putrid. Hence they considered the disease a *corruption* of the lungs, and fancied that putrid matter from the liver and other parts, being transferred to that organ, might produce an incurable disease. We find Celsus, with his usual accuracy, making a distinction between *φθισις* and *tubercles*, considering the former as only one species of the latter.

But that species of consumption from which originated the term phthisis, is usually the effect of pleurisy, and is very different from another with which it is confounded, and which gave rise to the idea that the expectoration of purulent matter was necessarily fatal. This last disease has its origin in the ramifications of the bronchia. It begins with cough and expectoration of mucus. If these continue for any time in a young subject, there is always an apprehension lest the disease should be confirmed; that is, lest by frequent returns of inflammation the secretion should become habitual. This danger is very much increased if the patient contracts the habit of straining himself into a cough, in order to discharge a small remaining quantity of mucus which he conceives will continue to irritate as long as it remains in the trachea, but which is in fact only secreted by the parts to protect them from the patient's efforts, consequently in proportion to his diligence is the secretion increased. I have often been astonished how little attention physicians have paid in not admonishing their patients to suppress their cough as much as possible. In all diseased lungs this should be attended to, but more particularly in the last mentioned; for by this constant irritation on a secreting surface, ulceration is at last produced, which, when we consider the ramifications of the bronchia, may soon be so extensive as to prove fatal. The only writer I find in my notes who describes this species of consumption is Chalmers, in his "Diseases of Carolina;" it however exists, I believe, in most parts of the world, but principally where the seasons are uncertain, and the inhabitants most subject to coughs.

A third cause of consumption is not only found in every part of the world, but is much more common than is suspected.

This

This is the only one that begins with that short dry cough which many writers have considered as the first symptom of consumptions in general. This disease is a chronic inflammation, or frequent habitual, though slight, inflammations of the lungs, which by repeated effusion of coagulable lymph, produces adhesions of the cellular part of the lungs, and thus obliterates their cavity, or prevents their expansion. The appearance in the dead subject is extremely well described by Dr. Baillie.* Mr. Abernethy, by his frequent examination of the bodies of those who died phtisical, detected it so often as to induce him to consider it one of the most common causes of consumptions.† This is, I believe, the only species of the disease known in this island, if we except those from hæmorrhage and pleurisy, both which are very uncommon.

Though all these are very distinct in their origin and progress, yet in the most advanced stages they have many symptoms in common; indeed, excepting the purulent expectoration, which never occurs in the consolidated state of the lungs from the adhesive inflammation, the closing symptoms of each are nearly similar.

But you are growing impatient to hear of Madeira. True it is, my dear Sir, we are apt to be *semper ad eventum festinantes et in medias res*; and if I were writing only to you, the latter ought to be passed over *haud secus ac notas*; but you insist on my writing to the world; if so, I must discriminate what I mean by a disease before I propose a remedy.

Mr. Abernethy, in the passage before alluded to, gives many judicious directions, by which the consumption from consolidated or infarcted lungs, if you will admit so antiquated an expression, may be discovered at an early period. Whenever we find the short dry cough with emaciation, it should always be suspected; and his test seems sufficient to distinguish the disease from all others, excepting the early stage of numerous small tubercles. To distinguish these two complaints we should, in the latter, look for other signs of scrophula; but in the former, there is a peculiarity in the cast and character of features which is very striking. Instead of that sensibility which enlivens the scrophulous countenance, and that sanguine disposition which sees, even in the most unfavourable symptoms, a prospect of amendment, we find a stiffness in all the motions of the features, and of the whole body, which is always in a very erect posture. The patient frequently anticipates his doom

* Morbid Anatomy, Chapter of the Lungs.

† Surgical and Physiological Essays, Part I. p. 155.

doom with a languor and complacency, if possible, more affecting than the unfounded hopes of the other victim. When we are satisfied that this is the disease, we may, I think, without change of climate, always insure success, at least as long as the appetite for food continues. Exercise, by which the blood is more determined to the limbs, and occasional evacuations to anticipate that plethora which may have become almost periodically habitual, will seldom fail of success in any climate. But your patience must be by this time exhausted; I shall, therefore, bring you to Madeira.

In all cases of tubercular or scrophulous consumption, if, as you express it, the patient does not saunter away his time after you have advised him to leave England, we can with certainty promise a cure.—Where the lungs are ulcerated from other causes, it remains for you to determine whether there are powers remaining in the constitution to effect a cure, if the patient is placed in the most favourable circumstances; for though we see many recover from a situation which invariably proves fatal during the winter in England, yet we have also instances in which an emaciated carcase has been surrendered to the waves during the voyage, or arrived only early enough to be decently interred. In an earlier period of the disease there can be no situation in the world so well calculated for the restoration of diseased lungs as the island of Madeira.

The valley of Tunchall is defended by immense hills from every wind but the south, where it is open to the sea breeze; this preserves a temperature so even, as is unknown in any other part of the world. Our winters may be compared to your summers in every thing but the length of days, and those sudden changes from heat to cold to which you are subject. The thermometer with us is often steady within doors, or varies scarcely a degree for weeks together. During winter, its whole range is from 58 to 65; and in summer, from 70 to 75, rarely amounting to 80, the heat being always tempered by a breeze in proportion to the force of the sun. The dryness of our atmosphere is not less remarkable; this is, I believe, of less consequence in consumptive cases than in those which are called humoral asthma, a disease unknown in this country. For want of good hygrometers, we have hitherto only been able to judge by the absence of fogs, by the rapidity of our rivers, which have refused a nidus to all fresh water fish excepting such eels as can secure themselves under large stones, and by our security from musquitoes and most other gnats; frogs, toads, and leeches are equally unknown. Since my arrival, I have not seen or heard of a case of intermittent fever; and the few dysenteries produced by the autumn, are milder and more easily relieved

relieved than those in England. However, to decide the question beyond a doubt, I procured two of Mr. Lane's hygrometers: One of these was suspended in open Veranda exposed to the beach, and the other at the residence of the Hon. Augustus Phipps, less than a mile out of town, and in a situation generally reputed damp for this country. By Mr. Phipps's register, which you will receive with this, it appears that the finger rarely pointed higher than two, and was most commonly lower for more than a month of our rainy season. The other hygrometer was so perpetually at, or near 0, that the gentleman who had the charge of it, grew tired of marking its trifling variations.

This discussion appears to me of no further consequence, than as far as truth is concerned, till it is found that a dry air is necessary for those who feel a temporary relief from inhaling hydrogen gas, the steam of water, and other analogous substances. The fact is much more to the purpose, that in all cases of scrophulous consumption, not too far advanced, the climate of Madeira proves a certain remedy. The only obvious causes I can offer for this *constant* success are, first, the equal temperature of our climate; next, that the lungs are not irritated by any particles arising from an open fire, or by the contraction of the skin from a partial access of air, which artificial heat will always produce. Our roads too being most of them paved, and no wheel carriages used in the most inhabited part of the island, those clouds of dust never arise which dry weather produces in other parts of the world, which in hot climates will sometimes produce catarrh, and which are always found injurious to weak or diseased lungs. These are, I believe, the principal enquiries you wished to make: It is true, they are of little consequence compared to the important fact you have in view. It is, however, satisfactory to trace probable causes; and it may be well worth your while to try whether spacious buildings, regularly heated, safely ventilated, and large enough to admit of necessary exercise, may not answer the purpose for such whose want of means, of courage, or of leisure, prevent their taking a voyage to a more genial climate. I remain,

MY DEAR SIR,

Yours, faithfully,

Madira, Jan. 21, 1801.

J. ADAMS.