

INTRODUCTION.

CHAPTER I.

The *Doctrine of Respiration* I think somewhat important, because it will show the necessity of breathing good air.

An Indian, it is storied, when asked what he thought was the reason of the ebbing and flowing of the tide, made answer: "You know there is a great deal of odds between a big creature and a little one; a horse draws his breath a great deal slower than a mouse: the world is a big creature—he draws his breath only twice in the day and night; that makes the tide.

Now my intention is not to enquire about the tide, but to state to you how I think we draw our breath, or respire.

I consider the lungs to be the pump of life.—Fresh, cool air, drawn into the lungs or lights, immediately is rarefied by their heat, and is directly forced back again, in the same way that it was taken in; then we are by some means (voluntary or involuntary) disposed to fill ourselves again with fresh good air. Thus our respiration is carried on by the great author of our existence, to whose praise we ought ever to be ready to say:

"His spirit moves our heaving lungs,
"Or we should breathe no more,"

and however our lungs may act on the principles of the steam machine, and so operate from natural causes, we shall not always breathe.

Men have contrived to break nearly all God's appointments; but this "*It is appointed for all men once to die,*" has never been abrogated or defeated yet by any man. And we should always remember, when we are about to take medicine, *if the Lord will*, we shall do this or that with success; *if the Lord will*, I shall get well by this means or some other.

But to return to the breath—If the air be cool and clear it will always have elasticity, as it is called; it will swell and fly back again easily, when we receive it into our lungs. But if the air is warm or hot, we should soon find a difficulty to draw our breath. This was very sensibly experienced in New-York, New-Jersey and Pennsylvania, in which I witnessed it, being in those parts about the 4th of July, 1811; and I conclude that a farther degree of the warmth of the air, might soon have prevented us from respiring at all.

Such likely was the case in Calcutta, where a close room being filled with about 160 prisoners, it is said they all died except 18 in about 12 hours.

If the air is any how nearly as warm as the lungs, I cannot see how we should breathe at all: it is necessary therefore for us to try to breathe good air, if we would wish to live.*

* In South Carolina I was once in company with old Dr. Dillihoo, who was noted for great skill and experience, having travelled into many parts of the world. In the course of our conversation, I asked him what he conceived the *plague* to be, which has been so much talked of in the world. He readily told me "that it was his opinion the plague is occasioned by an invisible insect. This insect, floating in the air, is taken in with

The motion and circulation of the blood is manifestly connected with our breathing. For every breath extends and contracts our lungs; and by this motion I conceive the valves of the heart are kept in operation; and every spring of the arteries and beating of the pulse are exactly in proportion to the operation of the lungs. When the breath is let out,

the breath into the lungs, and there it either poisons, or propagates its kind, so as to produce that dreadful disease. This, he was confirmed, was likely to be the truth, from the experiments frequently made at Gibraltar. For there, said he, they of the garrison, when they fear the plague, have a way to elevate a piece of fresh meat, pretty high in the air; they put it up at night, and if it comes down sound and sweet in the morning, they conclude there is no danger of the plague. But if the plague is in the air, the meat will be tainted and spoiled, and sometimes almost rotten.

"He was farther confirmed in his opinion of the insect, because in and about tobacco ware houses, the plague has never been known." I will remark. Now it is well known that tobacco will prevent moths from eating our woolen clothes, if we pack but a little of it with them, that is, the moth cannot breed nor exist, where there is a sufficient scent of the tobacco—this scent may be death to the invisible insect even after they are drawn in with the breath and fastened upon the lungs. This may account for tobacco being burned (as I have heard it is) in many old countries, on a chaffing dish in a room, that the people of the house may take in the smoke plentifully with their breath, to preserve their health and prevent pestilential disorders.

Agreeable to this view, we may conclude that all tainted air may bring disease and death to us. And tho the plague has never been (properly speaking) in America, as we know of. Yet other effluvia taken in with the breath may have occasioned other fearful diseases: such as the yellow fever, and other bilious and contagious complaints.

the lungs are immediately, in their blood vessels, filled with blood ; and when the breath is drawn in again, the blood in the lungs is forced out into the heart. That is, they say, "From the lungs when the air is inhaled, the blood is pressed into the left auricle of the heart, from thence to the left ventricle, thence to the aorta, and by it and its branches through the body to the capillary extremities of the arteries, through them into the veins, and by the veins to the right auricle of the heart, from thence into the right ventricle, from thence through the pulmonary arteries, at the time of respiration or exhaling the air from the lungs, into the lungs."

Thus the lungs are alternately filling, first with blood, then with air, at every breath, the one pumping or working the other. By this circulation the blood runs its rounds, and is carried (at least some of it) to the extremities of the body in a few minutes ; feeding our nerves, sinews and flesh as it passes on, and supplies and forces out that little juice through the pores of the skin, which we call perspiration and sweat.

From the blood vessels in the lungs is communicated a little stream of moisture, which grows into phlegm, and in a relaxed state produces that matter which is raised and coughed up from the lungs.

Indeed I consider that this motion and circulation of air and blood is the true cause of heat being kept up in the body ; and as the lungs have the most, and most violent motion, they possess the greatest degree of heat of any part of the body, and even heat the blood.* And it is by this motion, together

*The heat of the lungs and blood ought, I think, never to be suddenly checked or counteracted by cold : especially when the weather is hot, or when violent exercise has raised unusual heat in the lungs, and thro'

with some irregularities, that a fever takes place, producing a kind of electrical charge. When this is attended with too much bile, or an undue portion of the gall of the liver, then the fever is called a bilious fever, and always belongs to the diathesis of debility; and if the weakness is very prevalent, the nerves and tendons tremble and start, and the strength to speak or act be suspended, this is called a typhous or nervous fever.

But if there be a fullness of blood, a hard pulse, a fresh countenance, and an ability to speak and act with a degree of vigor or strength, then the fever may be called an inflammatory fever, and is exactly the opposite to the first mentioned. And your treatment must be accordingly. This belongs to the diathesis of plethora and irritation.

Here may we reflect on the balance of air and blood kept in motion to carry on life. For if the air and breath be suspended, how soon will death

the system. Then take care how you go into cold water, to swim, or even to wash. Remember that cold will coagulate and clot blood—and that very soon if its motion and circulation should be much or suddenly abated. Ah! how many have lost their lives, or their health, or become cripples for life, just by such folly!

A large drink of cold water has often proved fatal when the lungs and blood have been so heated, for the reason before assigned.

Indeed, in very hot weather, I think very cold water ought to be used with caution; and in small quantities, at least until the stomach is moderately cooled by it.

I am persuaded that instead of taking cold drink, when we are very hot, and if we find it is with difficulty we get our breath, we had better take warm drink.

I have noticed how easy it is to breathe in the hottest seasons after I have drank a good dish of hot coffee.

ensue; * or if the blood be taken away, how soon will all vital motion cease.

* A man who had been prisoner among the Indians, related to me the following most horrid incident.

Said he. "I was present at the burial of a squaw who died leaving a young child. When the Indians met to bury her, an old mother squaw took the infant child and offered it to every squaw in the company to take care of, but they severally refused: she then said, now then the mother must take care of it. She then taking hold of the child's nose with one hand, and applying the other to its lips, held them both fast closed. The event was that the child in a minute or two, struggled in death, and expired. She then laid it in the dead mother's arms, who were both buried together. He further said, that he could not but observe how well the old savage understood her business."

CHAPTER II.

The diathesis of diseases, agreeable to Brown's Elements, I conceive to be the truth. I became somewhat acquainted with this system about 22 years ago.

Agreeable to that plan, there are but two kinds of diseases of the human body: consisting 1. in *Plethora* and *Irritation*; and 2 in *Debility*, *Weakness* and *Languor*.

Generally speaking, it is of importance for us to know to which of these an afflicted sufferer belongs. The cases I have compared to a lighted candle—if your candle burns strong and has a superfluous wick, then you may safely snuff it; but if it is dim, burns dull, and its wick is too short already, *you must beware of snuffing it*, lest you put it out. You had better pick open your wick, and gently feed the flame until you bring it to burn well.

Plethora and Irritation are not so critical. You may then bleed liberally; especially if the pulse is hard and high; No. 2 or No. 3 may then be given to great advantage. I have sometimes taken blood, and succeeded wonderfully, when mere stagnation had nearly prevented the pulse from beating at all.

But it is altogether *critical* in all cases of real debility to which belong all bilious cases, cramps, fits, hysterics, &c. Then blood ought very cautiously to be let, if at all. And all diuretic and weakening medicines, should be very cautiously given, and sometimes carefully avoided. Your treatment should be strengthening and what is called tonic. Such as No. 1, No. 5, No. 9, &c.

Consequently in consumptive cases, nothing in my view is more improper than calomel, British oil, Tar water, &c. And I think it no wonder that consumptions have so long proved mortal, when it is