AN INAUGURAL DISSERTATION ON

Malaria

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A knowledge of the theory and source of disease is not always a necessary qualification, to enable the practitioner of medicine to arrest its ravages. A theorist relying upon his theory as the ground work of his success in practice, will often find himself surrounded by difficulties from which his fine spun theories cannot give relief, and yet all practitioners of medicine should by all available means, at their command, search out such truths, as are demonstrable, and which address themselves to the judgments of
Shall by the summing up of a few facts, and deductions therefrom endeavor to give a reason for the faith that is in us;

Malaria, is the well known parent of a common class of diseases, known, to the southern, and south-western States of this Confederacy,

Seeming with their mighty milions, and boasting of their mighty Rivers, and beautiful Valleys, monumental oaks, and majestic Tulips. Here in the wide spread Valley of America's great River the mighty Mississippi, we annually see a class of
diseases which are a terror to mankind. Strange that it should be so, strange that this fair Eden of the world, should have lurking within its bosom, a source of disease, which is a terror to those who may wish to feast their eyes and risk their fortunes in a land seemingly so blessed, by Heaven, a land yielding annually a richer and more abundant harvest, than is gathered, in any other Clime. Let us now briefly notice a few facts having reference to the immediate valley of the Mississippi River;
It is known that this river annually overflows her banks, and that from fifty to sixty miles of bottom or low-lands are submerged beneath the sweeping flood. These low-lands are interspersed with innumerable lakes, ponds, and marshes while the soil is alluvial, containing a very considerable amount of sand. The overflows of this river come at irregular periods, sometimes by the last of February or the first of March and again as late as the last of April or the first of May; and going off by the last march or the first
of April and if late passing off not till the last of May or the first of June, when there is an early overflow, it is followed, by very little malarial disease, but if the overflow occurs late in the spring, it will be followed by a great increase of malarial fever. Take for instance the year 1850, when the overflow came late, and did not pay off until the middle of June, and we see that there was more malarial disease in the regions bordering on these low lands, than was probably ever known either before or
Since, within fifteen days after the overflow had passed off, whole communities were prostrated with the various forms of malarial fever. Take again the year 1854, when the overflow came early, and passed off by the 10th of April, and we find this to have been the most healthy year known to the inhabitants of the great valley. From these facts we make the following deductions. We have said that the overflow in 1850 came late in the spring, and that within fifteen days after the overflow had passed off, those persons living adjacent to the overflowed lands were...
Stricken down with malarial disease. The Lakes, Ponds, & marshes were left full of the poison, while the soil was perfectly saturated with the hot sun of June, operating upon the confined or stagnant water, and our opinion is that the water thus confined, and under the influence of a hot sun, malaria was the product of the contact. The malarial poison after being generated was taken up by the gentle winds, and was issued out, to do its works. We have said also, that in the year 1854, the overflow passed off early, and that this was a remarkably
Healthy year, in the region referred to, so much so that doctors lived hard & did nothing but shrink from the glorious prospect of starvation which lay before them. We account for the healthfulness of this year, thus the overflow had passed off early, and the hot sun of June, July & August found no water in the Lakes & Ponds and soil to manufacture malaria from. Another notable fact in reference to the year 1854, was that the month of March—amore of the winds common to that month, it was perfectly calm, until about the last
day, when a brisk breeze began to blow, & continued throughout the month of April, March, April and May were cold and dry, with scarcely any rain at all, so that the water which had been left in the Lakes, Ponds, and other low grounds had disappeared, while that in the soil had either evaporated or had receded so far into the earth, that when the hot sun of summer came, it shone upon empty reservoirs, and a dry earth, how if the decomposition of vegetable matter, is the source of malaria why is it?
That Biling fever and chills and fever prevail so fiercely in the months of June, July, & August while vegetation is in its full vigor, the process of decay in vegetation commences in September as a general rule, and it is an undeniable fact that just about the time the putrefactive process commences malarial diseases begin to subside. If this be true (and we believe it cannot be successfully contradicted) when in connection with the facts previously stated, where we ask are the facts and arguments to come from, to revive the old theory? none can be
found, worthy of a moment's consideration, men in their advocacy of the old theory are conscientious, they have heard all their lives that the decay vegetable matter was the source of malaria; it has become with them a fixed opinion which we denominate an old prejudice, the people generally believe it, and the doctors wishing to dance to the music, cry out: These diseases are all caused by the decay of vegetable. What if Professor Wood of Philadelphia does say (on page 237) that all the varieties of miasmatic fever occur most frequently, and as original
affections, almost exclusively in the latter part of the summer, and in autumn, we of the south & west know, that such is not always the fact, on page 151, Prof. R. Good says among other things that the circumstances which appear to be essential to the production of miasmata are heat, moisture, and vegetable decomposition. He says further the peculiar morbid effects ascribed to this cause, and by which alone its existence can be recognized, seldom originate at a temperature under 60° F, even though vegetable decomposition may be going on, at 80—continues the Prof. They are often very.
prevalent and are generally checked by the occurrence of
frost, a certain continuance of the heat is not less necessary
than a certain degree of it.
Hence says he miasmatic
diseases scarcely ever prevail beyond the 5-6 degree of latitude;
because though many days in
summer, may be very hot,
the warm season is short, the
nearer we approach to the equator,
the more violent, as a general
rule do they become, implying a
greater intensity of the
cause, within the latitudes
where there is a regular change
of the seasons. They do not
commonly make their appearance
until the middle and often not till the close of summer. Here we have the admission of Prof. Wood of the fact that heat is the agent in the production of Malaria, "The nearer we approach to the equator the more violent, as a general rule do they (Malarial fevers) become, implying a greater intensity of the cause," And if the Prof. had added a greater amount of the element he would have come much nearer a just and rational conclusion, and when he admits as he does that heat & moisture are both necessary, it follows as a matter of course, that the greater the heat, and the more
abundant, the moisture the greater, the amount of malaria produced, and to prove that the proof is in error, we have only to point to the fact, already mentioned, that we have more remittent and intermittent fevers in July and August than any months in the year, at the very time that vegetation is in its most flourishing condition, and that when the decay of vegetable matter does commence, at about the same time precisely there is a decrease in malarial diseases and if this be true and it is undeniable, so we claim it to be a full and complete answer to all that the professor has said.
regarding vegetable decomposition, and its agency in the production of malaria. In 1848, the difficulty between the United States and Mexico, being amicably adjusted, the American Army took up the line of march for home. It will be remembered that in portions of Mexico, there is what is called the "Rainy season," which occurs in June, in that portion of country through which the American Army had to pass on its way from the City of Mexico, to Vera Cruz, it was in the months of June and July that the American Army passed through this rainy district, and embarked
at Vera Cruz, those who embarked early in June, were not the sufferers. But those who embarked during the latter part of June, and in July were the sufferers, from malarial fever. Within a few days after the rain had ceased, malarial disease began to develop itself, and well it might, for here was both moisture and heat in abundance, the earth was perfectly saturated with water, with the searing rays of a hot summer sun, blazing in its mighty force upon the earth.

Did these rains cause
Vegetation to decay, may
vivify, it received new life,
from the genial showers,
and was seen to thrive
and flourish, giving to the
Valley and the hillside,
a rich green & flowery garb.
Who does not remember,
The time that a dam was
thrown across some neighbour-
ing stream, for the erection
of a mill, and that & so soon,
as the piercing rays of a
summer sun were poured
out upon the stagnant
water, the people in the
vicinity of the dam were
frustrated with the various
forms of malarial fever.
not in the decline of
summer or the beginning
of autumn, but in June,
July, and August, it
often happens that
the spring showers will
wear away these dams and
the gently streams flow
on. The stagnant water
is all removed and the
region round about is
as free from disease
as the neighbouring
districts. The draining
of some highland
Rand has been often
known, to relieve
a neighbourhood from
excesses of miasmatic
Jeans, we trust that the foregoing facts though crudely thrown together, when weighed in balance of argument are sufficient, to establish the truth of what we claim as being the only rational theory, in regard to the source of malaria.