AN INAUGURAL DISSERTATION
ON

Meansis

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BY

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It too often happens in the discussion of a subject upon which different opinions have been entertained, that we throw aside the philosophic spirit of investigation which should characterize us on such occasions, and blinded by prejudice seek to distort those grand facts which should guide us in our judgment, to favour our own preconceived opinions. And on no other subject has this spirit of controversy been so greatly manifested, as upon the one we have chosen for consideration.

That Miasms, or Malaria as it is more generally termed, is caused by vegetable decomposition hardly admits of a doubt. But there have been writers in the world of Medicine who have exerted
all their mighty abilities to prove to the contrary. The proposition which we shall state is almost self-evident, and it will therefore require but little reasoning on our part to maintain it.

Autumnal fevers prevail most, where the amount of organic matter is greatest, and least where it is least. Where do we find these fevers prevailing most? If we look along the valleys of our large tropical streams, we find them ravaging the country to a frightful extent. While upon mountain and the elevated regions of the north, they are almost unknown; very little prevails in the pine barrens where there is no undergrowth, and where the wild turkey can be tracked for miles upon the sand. Here we find health but go down upon the swamps where vegetation is abundant, and
where the funereal cypress, and the live oak are decorated with their sombre drapery of the long moss, which has been appropriately called the "Curtains of Death." Then Malaria flourishes in all its virulence, and there fevers abound; these are the places from whence it wings its poisonous flight to the surrounding country, leaving desolation and death in its tract. And these are the places where we have the most decaying matter. The whole crust of this mighty globe itself is formed from the decomposition of organic matter; for when the rocky strata is exposed it begins to crumble, and this pulverulent layer immediately becomes the medium of some kind of plant. Thus leeches cover the hardest rocks, and by their death and decay add to the mineral matter, an organic element at once vegetable.
and animal in its composition. In this way the spot becomes prepared for vegetation of a higher character; which in its turn decays and so on until the crust of the earth is formed. And the reason we have more of this in our southern climate, is because we have more rain which promotes vegetable decomposition. And we have most of it along the valleys of our rivers, (where we have already seen they are more from which at each succeeding freshet bear upon their bottoms vast quantities of decaying vegetable matter) to leave them reeking in the sun on embanking. Not only this but they overflow the plantations on their margins, causing destruction of the crops which has always been a fruitful source of Malaria. Such was the case with the Savannah River in August 1852, when
one of the highest products ever known in that river occurred, and at the very time when the plantations along its banks were in a high state of cultivation, the corn was just ripening, the cotton was full of opening bolls, and the rice was almost ready to be reaped. When this tremendous flood came pouring in upon them and spreading devastation for miles. On the outskirts of the flood the crops which had been submerged by it, began to decay and malarial fevers prevailed that year upon the Savannah with unprecedented violence. The city of Augusta was entirely inundated. Broad streets were lost deep in water, and all the cellars filled. Yet no fever was the consequence. The city was never more healthy than it was that year. Proving that vegetable decomposition along
The course of the stream was the cause of the fever on its banks.
The surface water which has been so much talked about as producing Malaria, is only so, because it produces luxuriant vegetation which is destined annually to perish. Moisture is necessary to the evolution of Malaria because it promotes vegetable putrefaction. Much moisture was as a preventative, the fever of the tropical climate never begin their ravages until the rains have ceased. Surfaces deeply covered with water evolve less noxious vapours than those partially covered, because the decomposed particles are not exposed.

It has been said that newly settled places are peculiarly subject to this disease. The reason of this is very obvious for when...
The ax and the plow of the emigrant have been at work there, we find trees felled and decaying in heaps, and the putrefying vegetation which had been lying quietly at rest is turned up and exposed to the sun. And thus constitute the sources of sickness to the emigrant, and not the water running from the ends of the logs as some have said.

Hence after long cultivation these sources of malaria become exhausted and the place becomes healthy.

It has been urged with much force that if vegetable decomposition caused autumnal fever, they would not stop when frost begins, and vegetable matters are killed by it. But this is no argument for decomposition would not have advanced far enough until the next fall. The
fevers are always learned by setting fire to the woods and thereby destroying the leaves and other vegetable matter, which the planters in malarious districts invariably do, knowing its salutary effects.

The most probable reason why it occurs mostly in the fall is that in spring and early summer the luxuriant growths feeds on this malaria, and in the fall when these growths begin to decline the malaria is left free, man consumes it and it consumes him.

"Great lord of all things, yet a prey to all"

I shall mention one fact from Dr. Parrish's great work on the Diseases of the Interior Valley of N. America.

The little bay of Pensacola has been for many years remarkably exempt from autumnal fevers, so much so,
That the people of Mobile and New Orleans have been in the habit of spending the
duller at Pensacola. But what a
different state of things ten miles farther
up the coast, where the Escambia enters
into the gulf, and forms extensive marshs
by organic deposits at its mouth. A settlement
was attempted here in 1766, by sixty French
Protestants, in two months after the wetly
season came on only fourteen were alive,
and they all died in a few months from
the effect of Malaria upon their consti-
tutions. A settlement was again attempted
in 1834, when the little town called Florida
was laid out. And about forty houses
built and occupied by as many families.
But year after year, while the coast below
remained perfectly healthy, they were
plagued with fever. The place was
finally deserted by all who survived, and is obtained the name of the "graveyard".

When Drake visited the place in 1543, only two families were living in the vicinity. He concludes his interesting account, by saying we are bound to attribute this fatal insalubrity to the extensive deposits of organic matter made by the river; for the humidity of atmosphere and the same degree of temperature exist on the Coast above and below.

Those who reject the measma theory entirely, and who believe in the cryptogamic origin of fevers, still hold that vegetable putrefaction is necessary to produce the fungus, which they say is the cause of autumnal fevers. And in view of the facts which have been submitted it would be unreasonable not to conclude
that the composing vegetation is the chief element in the production of Malaria.

As to the nature of Malaria we know nothing like analogous agencies like the contagious principles of smallpox and typhus, and like the epidemic poisons of scarlatina and cholera they are too subtle to be recognized by our senses, too fugitive to be caught by any of our contrivances. Neither the strongest powers of the lens or the minutest analysis of the chemist have been able to discover the faintest trace of the character and composition of this invisible, mysterious and stupendous agency. And it is likely to remain so until the time when medical science shall have advanced so far as to verify the enthusiastic prophecy.
of the Venerable Bush. "That youth and the grave would never be associated."

When that time shall arrive and the dark clouds which hover over the pathway of medicine shall be dispelled by the effulgent beams of advancing science, then, and not till then, will this invisible enemy be vanquished by the followers of Esculapius.