TREATMENT

OF

FEVER AND INFLAMMATION.

AN ESSAY

ON THE

TOPOGRAPHY AND PREVAILING DISEASES

OF

NEW HANOVER COUNTY, N. C.,

READ BEFORE THE ANNUAL MEETING OF THE

North Carolina Medical Society,

HELD AT

WILMINGTON, N. C., MAY 25, 1870,

BY

S. S. SATCHWELL, A.M., M.D.,

OF

NEW HANOVER COUNTY, N. C.

Published by order of the Society.

WILMINGTON, N. C.:

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1870.

ERRATA.

On page 15, line 5, *country* should read *county*. On same page a period should occur after the word *common*, in line 8, and the word *while* should begin a new sentence. On same page, line 18, the word *Trachsales* should read *Tracheales*.

On page 17, line 14 from bottom, a period should occur after the word *condition*, and the word *while*, which follows, should begin a new sentence. After the word *soils*, on same page, line 10 from bottom, a comma should follow, and the following word *it* should not begin with a capital.

On page 19, line 1, the word *revolution* should read *resolution*. On same page, line 15 from bottom, the word *generate* should read *general*.

On page 21, line 17 from bottom, the name *Brunet* should read *Bennett*. On same page, line 10 from bottom, the word *is* should read *as*.

On page 22, line 26, from top, the word *course* should read *cause*. On same page, line 12, from bottom, a period should follow the word *community* and the following word *more* should begin a new sentence.

On page 24, line 9, the word *get* should read *yet*.

On page 33, line 9 from top, the word *offered* should read *opposed*. On same page, line 6 from bottom, the word *offered* should read *opposed*.

On page 38, line 11, from top, the words *even played* should read *employed*.

On page 39, line 11, from bottom, a period should occur after the word *better*, and the following word *numerous* should begin a new sentence.

On page 42, last line, the word *prevented* should read *perverted*.

On page 44, line 21, from top, the word *expedient* should read *expectant*.

On page 49, line 25, from top, a comma should take the place of a period after the name *Manson*.

Other typographical errors occur in different portions of the Essay, which it is hoped the reader will recognize to be such, as he proceeds, and make accordingly the proper allowance.

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[APPENDIX C.]

ESSAY

Read before the Medical Society of the State of North Carolina, at the Annual Meeting in Wilmington, May 25th, 1870;

BY

S. S. SATCHWELL, A. M., M. D.,

OF

NEW HANOVER COUNTY, N. C.

—o—

Mr. President:

During each of its annual meetings, for the last three years, this Society has honored me with a request to report upon the Topography and Prevailing Diseases of New Hanover County. The laborious duties incident to an arduous country practice, conjoined with those constant interruptions and sacrifices, which since the late war, more than ever, attend the life of the true Physician and Surgeon of this war-stricken Southern land, have prevented my response to this generous call. And even now, the continuance of these demands upon me enforce the conviction that I can only hope to perform the task assigned me in a manner incomplete and unsatisfactory to myself. To remain longer silent, however, with the invitation still extended, would argue, what I cannot acknowledge—either insensibility to duty on my part, or an indifference to the high claims of the medical profession upon the members of this Association to contribute, each his mite, to that medical fabric, broad, strong and enduring, which the Society has been building up

in North Carolina for the last eighteen years of its existence. Nor do I propose to allow the occasion to pass without some allusions to certain well known heretical doctrines in relation to the modern treatment of congestive fevers, acute internal inflammations and other inflammatory diseases, which, through the medium of our Transactions and other sources, have been of late so industriously promulgated to the medical world. But while, in the latter part of this paper, I shall interpose some objections to the extreme views of Todd, Bennett and others of their disciples in this and other States and countries, I may remark that my main purpose is to perform the more legitimate work assigned me by the Society, as just referred to. The views I have to offer upon points discussed in this notice of the prevailing diseases of this Southeastern portion of the State, where most of my medical life has been spent in active practice, are not claimed to be novel or original. They are such, however, as my knowledge, experience and observation enable me to honestly entertain, feebly though I shall express them. No little obscurity has always attended the cause, nature and treatment of disease, in spite of the sure advances and brilliant triumphs of the ever-progressive art and science of our always noble profession. With all the floods of light which the progress in general culture and knowledge of this age have shed upon the advancing civilization of the world, it is strange that nothing scarcely seems to be received as settled in morals, science, art, politics or religion. It is mainly by a faithful collection and comparision of *facts* that *principles* are established and medical science advanced. It is by these means that such knowledge is acquired and such legitimate deductions drawn as will best enable us to attain the great practical end of medical life—*correct diagnosis and successful treatment.* And it is gratifying to know, that if we are to have in North Carolina a *Medical Digest* worthy to serve as our best guide to practice, its best materials will be sought in the accumulated and accumulating facts and contributions of local *Medical History.*

TOPOGRAPHY.

New Hanover County embraces an area of about one thousand (1,000) square miles, and contains, outside of Wilmington, a population of about twenty thousand (20,000) inhabitants. Besides the Ocean on the East, it joins Onslow, Duplin, Sampson, Bladen, Columbus and Brunswick counties. It presents important meteorological, minerological and agricultural conditions and relations. Its climate, natural

resources, products, facilities for rapid and cheap transportation to the best markets, and admirable adaptation to the production upon her generally fertile soil, of almost every variety of agricultural and horticultual products, render New Hanover not merely a desirable home for those already here, but attractive to those of other portions of our own and of other States and countries beyond the seas, who seek new homes with a view of bettering their condition. While thus of interest and attraction in a commercial, manufacturing and agricultural point of view, such is the range and variety of its climate and other conditions, that it gives origin to no inconsiderable number and variety of diseases; and the medical enquirer can here find much to interest him. Large navigable streams, known as North East, North West and Black rivers, together with their numerous tributaries, intersect and divide up the county and empty their waters into the Cape Fear river. These various streams present the usual borders, bottoms, swamps, lagoons and unhealthy sites that here, as in similar situations, are attended with those terrestrial exhalations, termed malaria and productive of malarious diseases. We have the customary intermediate uplands, in some places constituting extensive sand ridges, stretching, in some instances, to long distances. The growth of timber is diversified, consisting principally of cypress, sweet and black gum, poplar, oak, hickory, ash, bay, pine, reed cane, dogwood, &c., with the exception of her barren sand ridges, low prairie bottoms and gall-berry thickets, the soil of this county is generally fertile and finely adapted, in its general character, to the production of the great Southern staple—cotton. The sub-soil is mostly clay, some of it silicious, other portions mixed in these respects. A large belt of country, known as Rocky Point, divided by that great artery of our trade, vitality and prosperity, the Wilmington and Weldon Rail Road, is as rich and productive as any portion of the State, and noted for its advancement and prosperity in agriculture. In its adaptation to agriculture and horticulture, New Hanover is scarcely excalled by any county in North Carolina. Good marl exists in abundance on almost every man's plantation, and convenient to the surface, while the natural resources for composting and otherwise enriching the land universally exists in the greatest abundance. Nor is there wanting evidence that extensive beds of phosphatic deposits, similar to those near Charleston, South Carolina, exist in our County.—Besides the almost universal distribution of marl beds and of actual phosphatic deposits in certain localities, very exten-

sive layers of lime rock exist in many parts, capable of manufacturing immense amounts of excellent lime. The eyes of science are now directed more earnestly than ever to these formations and remains of the violent efforts and upheavings of nature in olden times, in these near approaches to old ocean. The new impetus given within the last few years to the cause of agriculture in the County, is having the happy effect of changing the pursuits of many of the inhabitants from the precarious business of naval stores, lumber, shingles, &c., to the surer support and more substantial prosperity to be found in the cultivation of the generous soil. Its beneficial results are seen, too, in the improvement of the health of the County, by these onslaughts upon malaria, which the clearing of forests, drainage and good farming always make.

The climate is temperate. The latitude is between 34 and 35 and the longitude between 77 and 78 degrees, the mean temperature being about 50 degrees. That of winter is about 80, and that of summer about 50 degrees. The breezes from the ocean in summer are greatly prized, especially by the inhabitants in more immediate proximity to the coast; commencing about the middle of the forenoon, when the heat of the day generally begins to be oppressive, they are not only cordially welcomed, but are absolutely delicious. Snow is seldom seen and rarely remains on the ground longer than a few hours. So that while the climate is temperate and the summers warm, the winters, sometimes variable, are generally mild.

Wilmington is situated on the East bank of the Cape Fear river, at the confluence of the North East and North West rivers, and about twenty-five (25) miles from the ocean. Opposite the city is a large Island, composed of the sedimentary deposits of the river, and formerly under successful rice cultivation. The city is more elevated, ascending from the margin of the river in sand hills of various heights, the highest point being 36 feet above the level of the sea. The North East and South sides of the city are encircled, to a great degree, by creeks and rivulets with marshy borders, many of them have been filled up in the progress of improvement, but too many yet remain for the good health of the neighboring inhabitants. The opposite Island alluded to, five miles long and two miles wide, is covered to a considerable extent, with the original growth, cypress, ash, black gum, bay and other trees, with an undergrowth of flags, reed and aquatic plants. It is flooded by tide water, except a small strip on the river margin opposite the city.

artificially elevated by the construction of wharves. The same description is applicable to the river margin on its Western side below the city, the whole constituting what is called "tide swamp." The soil is sandy, underlaid by a limestone formation. The city is supplied with water from springs and wells, and much of it inferior in quality. This is greatly improved, however, in summer, by the addition of ice, large quantities of which are consumed in Wilmington. The filling up of the low, swampy places, which heretofore existed in some parts of the city, has largely contributed to the public health and encouraging to further efforts in this direction. What influence the turpentine distilleries here have upon the general health is a matter of speculation, it is true, but my observations here and elsewhere, inclines me to the conviction that they are very desirable auxiliary conservators of public health. During the late war, it is contended that it was more sickly in autumn in the vicinity of turpentine distilleries, here and elsewhere in our lower Cape Fear, where their operations were temporarily suspended, than it was before and since, during such distillation of this extensive commercial staple.

In a city like Wilmington, so promising for the future, and so justly noted for its enterprise and increase in population and wealth, there is a lamentable want of parks and public squares. These necessary appendages to every city, constituting in fact its very lungs, were sadly overlooked in the earlier days of Wilmington. It is hoped and expected, however, that a substitute, to a great extent, for this obvious defect and continued want, will be found at an early day, in these ornamental grounds and public squares that are springing up contiguous to the city upon the soil of the Cape Fear Agricultural Association. This institution, which though an infant in age, is bounding forth in giant strides an herculean power in its noble mission of improving the commerce, mechanics and agriculture of Eastern North Carolina, promises to supply, very materially, the comforts and benefits that would flow from the existence of such conveniences more in the heart of the city. The population of Wilmington, in 1850, was about seven thousand, now it is believed to be about fifteen thousand inhabitants, and is therefore the largest city in the State.

CAUSES—PREDISPOSING AND EXCITING.

At the very threshold of our Etiology looms above all others for repetition, the old familiar tale of bad air as the most potent agent of disease. It is the atmosphere of ter-

estrial exhalations bearing the specific poison of malaria that makes more work for the physicians of this section, either in its more rapid and direct or in its slower and indirect influences than most all other causes of disease combined. Besides the list of periodical fevers that its absorption into the system produces, it modifies nearly all the diseases of the different seasons, gives the character of periodicity to many, and introduces its great adversary, quinine, into a majority of all our medical prescriptions. Malaria has been a more fruitful theme of medical discussions—has been the occasion of more theories, fanciful and reasonable, logical and illogical, and the publication of more and larger volumes, than almost any subject in the whole range of medical literature, and yet its analysis and true nature continues to elude investigation. Besides the great practical knowledge of its effects and the fact that the constituents of the air of malarious localities are found, without doubt to be different from those where this poison does not exist, but little is really known that can stand the test of our inductive system of medicine. Nearer approaches, however, in my opinion, are being made now than ever before, in the eager search after its hidden nature. I believe that the brilliant triumphs of medical progress will not much longer permit its derisions and reproaches at the science of chemistry and medicine. The footprints of its haunts are seen on the whole habitable globe, wherever there are conditions favorable to its production. Nor is its universality, more marked than the uniform periodicity of the fevers it engenders. It prefers such localities and regions as would otherwise be the choicest of God's heritage. Prevailing in all ages, it is the same deleterious agent and specific poison, except in degrees of virulence, whether it appears upon the borders of Ganges or the Nile—upon the Pontine marshes or in the Mississippi valley; upon the island of Crete, the slopes of the Atlantic coast, or along the border and tributaries of our own cherished Roanoke, Tar Neuse and Cape Fear rivers. In these innumerable places it comes forth every spring, summer and fall, in giant strength but invisible form. With stealthy steps it lurks around our homes and altars, producing more sickness and mortality in its immediate or remote influences than any other cause known. Not alone in the production of the various forms of malarial fever, in the shape of intermittent, remittent and congestive fevers, are its ravages recognized, but in their sequaele as manifested in the multifarious chronic diseases that in some way have a malarial origin and character do we see the destructive influences of this agent

upon human health, life and happiness. Sometimes they are presented in the shape of jaundice, hepatitis, and other chronic derangements of the biliary organs so generally observed in malarious localities, and so often the forerunners of dropsies, diseases of the stomach, bowels and other organs. At other times the strength of the constitution of some persons, and their capacity to resist for a longer or shorter time malarious influences, enable them to reside in such localities without any special attack of malarial fever. Few there are, however, who, living in these regions, do not present that sallow hue and malarious physiognomy which always characterizes the inhabitants of malarious regions. In other instances these malarial manifestations are observed in that large list of nervous diseases that are seen in those cases of spinal and cerebral hemiplegia, sciatica, hysteria neuralgia and like annoying affections which are more numerous in malarious than in regions free from its influences. The literature of malaria is destined to be still more enriched with the results of the experience yet to be proven and the discoveries yet to be made in its production of the family of nervous and spinal diseases. But in whatever form this prolific cause of disease may act, or however labarynthian its ways, it is the conclusion of my long medical experience in the malarious regions of Eastern North Carolina, that once introduced into the system, it is very difficult to be eradicated. I repeat the important fact, that residence in these malarious localities engenders, sooner or later, either an acute attack of malarial fever or those slow derangements of functional action and of the nervous and vascular systems which produce some chronic lingering disease, or some gradual undermining of the general health, most generally attended with a lowering of the vital forces and a depression of spirits. The inhabitants of such localities are noted for more languor of body and debility, and have less desire to enjoy the innocent pleasures and amusements of life, than those residing in healthier districts.

Hepatic derangement constitutes, in the main, the basis of these troubles, however much the doctrine may be ridiculed by those who have never resided in a malarious region or treated a malarial fever. Sometimes they are manifested in that failure of the appetite, furred tongue, constipated bowels, feeble pulse and general debility, with that saffron hue of countenance and dejected eye which meet us in our daily professional walks. In other cases, we find conjoined to this torpid condition of the liver such a relaxation of the alimentary canal and general debility as produce or co-exist with

chronic gastritis, gasto-enteritis, chronic diarrhœa, &c., that only make up another feature of this common disease in these lower counties. In all these hepatic and splenic affections so intimately related to those slow and exhausting complications, that, without efficient treatment, gradually undermine physical health and destroy human life, I find united, more or less, depression of spirits and perversion of feeling, sometimes even closely approaching insanity. The residents of the purer atmosphere and more elevated regions of the hills and mountains of our State are in their more elastic steps, more vigorous frames and more buoyant spirits, not only more healthy, but more happy and contented than are the same number of population in the swamps and flat counties of these Eastern shores, whose sallow countenances, enervated movements and dejected spirits, correspond with the enervating influences of the atmosphere and general physical surrounding of the soil. One general remark as to the treatment of these troublesome diseases. While the claims of mercury are not to be ignored, I have been particularly gratified at the results of the use of nitro-muriatic acid. Its action upon the liver is undoubted, and in doses of from five to ten drops, repeated several times a day, I have found marked benefit in the treatment of the various forms of these chronic complaints. I find it useful, whenever digestion is enfebled or nutrition is impaired, and whether the bowels are constipated or too loose. It seems to operate, not alone as a stimulant to the liver, causing generally an increased flow of bile, nor yet alone is it a tonic, acting as an auxiliary to the functions of nutrition and assimilation, but it also exerts, in my opinion, an alterative action upon the mucous surface of the stomach and bowels and upon the blood. In jaundice, dropsical accumulations and general cachepia it acts well. Of course I need not speak of the well known caution to be observed of not administering nitro-muriatic acid with mercury, from the poison of corrosive sublimate formed by their joint administration at the same time.

In that form of chronic malarial diseases known as obstinate and protracted intermittent fever, in which quinine has failed, I know of no remedy so effective in breaking up and permanently curing the disease, as a combination of iron, quinine and strichnine. When the chill and fever continues to recur in spite of all the quinine, arsenic and other means, you will find a certain cure and preventative of the return in a pill, administered three times a day, of two to five grains of quinine, a like quantity of carbonate of iron, combined with from one-fifteenth to one-twelfth of a grain of strichnine.

But it is pleasing to know that the cause of these diseases can be modified and removed. The industry and science of man, which in all departments of life are more than ever removing the difficulties to human progress, can circumscribe this fell-destroyer, malaria, and not merely modify his power, but rout him entirely from his strongholds. In this very county, as before intimated, the advancement of agriculture, in the clearing of forests, drainage and other physical improvements, have made and are still making, many of our hitherto most sickly places the most healthy. Thus are the profits and improvements in agriculture made to correspond with the improvement of health and the prolongation of human life.

But there are other than physical causes operating in this section with more than ordinary force in the production of disease. I refer to those emotions and to those harrassing cares and crushing anxieties connected with the existence and results of the late war. Herein are causes which have already placed beneath the sod many of our oldest citizens, and which are preparing others for premature graves.—Anterior to that period, we did not meet upon the streets of our cities and on the byways and highways so many with haggard eyes, dark frowns, pale faces, and discontented weariness of body and mind, as we now meet in increased numbers at every turn. Nor did the physician have then, as now, upon his list of patients, so many of those long suffering victims of nervous, dyspeptic and organic diseases. I can discover in my own practice the *cause* in the war and its results; and the *effects* in a much larger number of these cases, especially of heart disease. Never have I seen so much comparatively of paralytic disease or nervous affections generally, and of functional and organic derangements of the heart, as I have witnessed since the war. These influences upon health and longevity are as marked, in my observation, as they are lamentable. These causes, however, are not to be mistaken for or confounded with imperfect food, bad clothing, violent exposures, &c., or with those other influences that arise from the atmosphere, soil and other physical characteristics of our low flat country, which either in their direct influence upon the human organization, or in their indirect operations, so act upon the mental and physical powers as to lower the action of the vital forces and produce disease. But these causes in relation to the war are separately marked by those profound impressions of the mind and body that attend disappointments, blasted hopes, wounded sensibilities, and the inroads of the canker-worms of penury and want. Upon no class have these disastrous

results of the war been so marked as upon the medical profession. Not only have they made the true medical man poorer, from his humane disposition to respond to every call for his services, and to extend the credit system, when he is about the only man in the community who does it at all, but the increased wear and tear legitimately upon his mental and physical system, in every respect, since the war, more than that upon other professional men, have produced and continues to produce more haggard looks, more gray hairs, a greater tendency to functional and organic disease, and a more general and premature decay, physically in him, than in the follower of any other occupation or profession among us.

The changed relations of our colored population have given a new interest to our tables of health and mortality. While the vexed question of their capacity for self-government politically, is left as a problem to be solved by themselves and the politicians and statesmen of the country, it has already been demonstrated, that in this period of their progress in freedom, they are, as a class, incapable of taking ordinary care of their health. Prior to their emancipation, under the kind attention and fostering care of their former masters, which, in sickness as in health, they received, their general health was as good and their mortality as small as those of the whites. But sickness prevails more generally now among them than the whites, and death is making sad havoc in their ranks. Disease in its acute stage or chronic form, often of scrofula and consumption, is sweeping them off by thousands, almost every month, in these Eastern Counties. While they can better stand the sunshine and heat of our summers than the whites, they cannot so well resist the rigors of winter, and the African succumbs more readily than the Caucasian to severe congestions and high inflammations. The latter bears depletion much better, and requires less of stimulation. Naturally improvident and careless, obliged to assume the responsibility of providing for themselves, they are dying in large numbers, from exposures and from the want of cleanliness, clothing, food and medicines. They are living upon good terms, generally, with the whites, especially their former masters; and the whites are doing all in their power to aid them. But in consideration of their number and the amount of their suffering and sickness, true philanthropy and genuine christianity, so fond of going beyond distant seas in search of the poor and idolatrous heathen, would do well to look more closely to our own shores as missionary fields worthy of the dissemination of the blessings and means of the cause of missions. Since

their emancipation, this race (previously so prolific in numbers,) have but few children, comparatively, and many of them are given to the crime of abortion. The mortality among them is very great and alarmingly on the increase; and I now suggest to this Society the importance of taking special steps to secure more accurate statistics of their mortality. If this progresses for the next fifty years, in the same ratio as it has done within the last five, this unfortunate race, destined to remain among us, endowed not only with the claims of humanity but with equal rights of citizenship, and so worthy of the sympathies and assistance of every lover of humanity and friend of civilization, will, long before this period expires, have become not alone greatly degenerated in physical endurance and longevity, but, sad to say, vastly diminished in numbers.

I will allude to but one other prevailing cause of disease among us. It is not that of imperfect food and clothing, which since the war has been so seriously felt among white and black, operating as a constant source of disease and death. Nor do I refer to any every-day exciting cause, originating from excess of passion, or fatigue, or food, or of sudden reduction of temperature, suppression of perspiration, violent exposure, &c., but I refer to that infliction upon the health of the community which is produced in the alarming amount over all preceding years, of *cheap, low, mean* ardent spirits, dispensed by the multifarious grog shops and drinking saloons which have sprung up and are springing up among us. Nearly all the abominable, adulterated, inflammatory, poisonous liquids in the shape of whiskey, gin, brandy, rum, &c., that the ingenuity of man can manufacture, and which, from their poisonous and fatal effects, can no longer be imposed upon the Western, Eastern and Northern markets, are now from their cheapness, and the too generous credulity of Southerners, flooded upon this poverty stricken land. The opinions of mankind are too often based upon their appetites and inclinations, as well as their supposed interest. When there is a fondness for drinking ardent spirits, the thousand excuses and arguments therefor are always ready, even if reason and experience teach that sickness and death are the legitimate results. And they are now productive of a greater amount of injury, not only in causing disease, but in aggravating all forms of fevers and epidemics, where the patient has been previously addicted to an excess, than is generally acknowledged by those unacquainted with the very large amount of cheap whiskey

that our people consume in this day. It is time that our law makers and conservators of the public health had risen in their power and in defiance of the demands of the groveling appetites and prejudices of these demoralizing times; and armed with the panoply of truth, humanity and science, had enacted and enforced more strongly sanitary and other laws that will stay this tide of corruption, sickness and death which is filling so many new made graves, and crowding our prisons, hospitals and insane asylums. I take the liberty of appealing to the Board of Public Charity of North Carolina, whose important services in the cause of humanity in our State are of so much interest to all classes and occupations, to address themselves with renewed energy to this important feature of their labors, and to give to the subject its merited prominence in their next report to the Legislature. And I also appeal to the proper authorities everywhere, to the municipal authorities of every town and city, to the board of commissioners of each county, to the trustees of the poor, to the guardians of public health all over the State, to men in office and out of office in every community, who have bosoms that glow with the generous emotions of State pride or warm with the love of humanity, to come, one and all, to the rescue of our people and State from this maelstrom of destruction to the health and lives of our fellow citizens. The great decrease of population among the colored people already referred to, their habits of indolence, vice and crime, and the awful destruction of human health and life of both the African and Caucasian races of our State, by this alarming increase of grog shops, liquor saloons, and whiskey drinking, is enough to stir the hearts and nerve the arms of every patriot, philanthropist and christian. No man who is able to estimate the blessings of health and virtue, or to appreciate the relations of population to the welfare of the community, or the prosperity of the State, can hesitate to admit the magnitude of this question. Every man versed in political economy, knows the importance of health and of a good population and of good order to the industrial pursuits and general welfare of every community. Every legislator, who loves his race and State more than party, and who allows reason, justice and conscience to guide him, rather than prejudice, ignorance or passion, will not hesitate to listen considerately to the voice of lamentation and sorrow that now comes in pleading tones from every quarter of our State for more effectual means and measures, moral and legal, to stay this sweeping tide of misery and destruction.

PREVAILING DISEASES.

It has been unusually healthy in this locality, as I think it has been generally in the South Eastern part of the State for several years past. An epidemic of Variola, in 1866, and another of Diptheria, in 1869, appeared in this city. With these exceptions, no general epidemic of the whole country has appeared since the war. Our endemic diseases of summer and fall have been milder in form, and fewer in number than common, while the ravages of war have decimated our numbers, desolated our fields, and paralized our industrial operations, it would seem that Providence, in mercy at the woes and sufferings of this afflicted land during the last decade has, within the last few years, interposed His mighty arm of deliverance in protecting our people, in their noble efforts at recuperation, from the usual amount of sickness. Still there has not been an entire absence of the diseases more peculiar to the different seasons and always of interest to the progressive physician. In the winter we have the customary inflammations of the respiratory apparatus. Cynance Trachsales, Pneumonias, Bronchites, Pleurites, &c., together with Rheumatisms, Neuralgias, and other diseases, acute and chronic, of these Eastern shores. In the Spring we have a continuance of these inflammations and chronic derangements, together with influenzas and diseases of the stomach and bowels, more particularly of children. It is in these months and later in the Summer, that we have more prevalent, that terror of parents and fruitful source of mortality—Cholera Infantum. The Spring, too, is often marked by an aggravation of that numerous class of nervous diseases in the shape of Neuralgias, Neuralgic Rheumatisms, Spinal affections, Sciaticas, and other nervous affections, which in their tormenting nature love to linger here a large portion of the whole year. In their causes, however obscure, I do not consider it bad medical logic to attribute a large share to these anomalous influences of malaria upon our nervous organization, and other structures. True, the distressing maladies may, in this moist climate, be owing in no small degree, to the influence upon the organization of those sudden vicissitudes of temperature observed in this locality. The thermometer often falls or rises forty degrees and upwards in less than twenty-four hours, during the winter and spring, and I cannot admit with some, that these great changes are unattended with injury to the health. Still I believe that observations which have been and will be made in the yet inviting field of malaria will disclose valuable facts in their relations to these nervous and other diseases, which in their number and

severity are, as already stated, more common to malarious than other localities. I repeat my conviction that this taint of malaria modifies most of our diseases, not merely those of acute inflammation, but is influential in the cause and modification of very many of that numerous family of chronic diseases, splenic and hepatic derangements, subacute inflammations of the stomach and bowels, dropsies, stomatitis materna, and other lingering complaints, more numerous and obstinate in malarious than in more favored sections as regards health. Nor is this influence of rapid change of temperature and of malarious taint, more to be considered in tracing the *cause*, than in adopting the corresponding *treatment*, of this extensive class of diseases, acute and chronic, of malarious portions of the country. Inflammation of the bowels, I have already remarked, is prominent among our ordinary diseases of spring and summer. I have known it to prevail extensively and violently here in an endemic and epidemic form also, and in despite of the best medical treatment, hurrying many adults, as well as children, rapidly to the grave. In the shape of an epidemic dysentery, a malignant disease of the bowels prevailed over a limited section of the county about one year ago. There were numerous cases in and about the vicinity of the town of Lillington, in this county. It was one of the most difficult and dangerous forms of bowel disease which I ever encountered. It seemed to select from preference the borders and bottoms of adjacent streams. Some of the cases seemed periodical in character giving force to the opinion that the terrestrical exhalations from these bottoms were connected with the cause. It occurred in that season when these bottoms and streams were dry, and when the cool nights and warm days denoted those vicissitudes of temperature, that so sensibly impress the skin and produce a want of balance in the circulation. The influence in contracting the capillaries and smaller arteries, and impelling an immense quantity of blood through the internal and lesser resisting vessels, disturbing the equilibrium and nervous and vascular power, was likewise attended with other abnormal changes and intestinal irritations so well known to produce diarrhœa and dysentery. It spared neither age nor sex. It was generally ushered in by a chill, followed with fever, severe pains in the bowels, head and other parts, with mucous and bloody discharges. To a constant nauseu and irritability of the stomach, thirst, and other ordinary symptoms of bowel complaints, there was added early and rapid prostration, continued high fever, and a persistent discharge of bloody and dark coloured matter,

which resisted, with remarkable success, all attempts to change its character or reduce its quantity. Its general character was inflammatory and confined chiefly to the lower bowels. As the type of the disease seemed to contra-indicate the use of the lancet, I found a free administration of mercury, if the case was seen early, the most potential remedy in subduing the disease. This followed with such smaller doses combined with opiate and astringents as circumstances indicated, using sudorifics when they could be retained, poultices, &c., constituted the main treatment, modified according to the varying symptoms and changes of this truly formidable disease.

But of all our Spring and Summer diseases, none is so frequent and so fatal as "Cholera Infantum," or the "Summer Complaint," as it is commonly called, from its chief prevalance during that season. Of all our prevailing diseases, none so stings the hearts of anxious parents and friends—none is more trying to the metal of the physician, and none enters more largely into our mortality than this dreaded enemy of infantile life. I may say, with an emphasis, that is based upon a long observation of the sad and proverbial want of proper attention to the diet and regimen of children, that no disease demands more than this correct dissemination and intelligent appreciation from the family as well as the medical attendant, of the true principles of food, clothing and general hygienic treatment necessary for them. Insidious in character often this scourge of childhood is too frequently allowed to approach a fatal termination, under that temporizing domestic management based on the want of correct views as to the cause, nature and pathology of the disease. If the bowels can only be checked, the anxious mother too often rests satisfied that the child is improving and the danger is over, while in fact the slumbering fires beneath are only aggravating the actual condition—while the main predisposing cause is so generally found in the changing temperature and other conditions of the atmosphere, modified more or less by emanations from contiguous soils. It is to be regretted that there does not prevail a more general appreciation of the laws of what I shall term *infant hygiene*, as related to the attendant circumstances and conditions found—indentition, improper clothing, unnecessary confinement within door from the health-giving influence of the sun and air, violent exposure at other times, bad food, &c., that not merely excite but aggravate this disease. It annually bears its thousands and tens of thousands of victims to premature graves—New Hanover County and Wilmington furnishing their sad quota. Let the suggestions of common

sense and of philosophic medicine be more generally heeded by the community, and more, many more, of our children will live to be sources of joy to parents and friends and blessings to the community. In the diet, clothing and general hygiene of their children, will not our mothers consent to heed less the allurements of fashion and false pride and listen more to the demands of reason, experience and humanity? Would they save their darling offspring from diarrhœa, cholara infantum, &c.? If so, let them take more warning from the solem truth, which needs to be more profoundly impressed upon them all, that not alone do sudden atmospheric changes and bad air contribute to the production of these diseases and of other congestions and inflammations of children, but that their ignorance and false pride, in adhering to practices unreasonable and customs ruinous in the feeding and clothing of their children, are not less potential in causing infantile disease and mortality. Let children be taken in good weather, from the unwholesome air of pent up abodes into the more invigorating life of the out-door air and sunshine of Heaven. The accumulation of a litle dirt and sun-burn will readily yield to soap, water and time. Let us teach these fashionable mothers how it is that their devotion to low neck dresses, bare arms and legs causes such a loss of animal heat, such defective circulation in the parts exposed, and such an excess of blood to the internal organs as often ends in their congestion and inflammation, not unfrequently ending in death. Mothers who so often wilfully disregard the plainest laws of health in these respects, of raising their children, would shiver and suffer from such exposures of their own persons and expect to be sick therefrom, and yet they can stand such treatment with far less danger than do their tender infants. The symptoms of the formidable disease in question are much the same here as elsewhere: pulse small and quick; fever higher at first, assumes the lower grade as it progresses; irritability and frequent evacuations from the bowels often attended with nausea and vomiting; thirst more or less urgent; discharges, at first, more of undigested feculent matter, mixed with bile, become more of a combination of mucus bile and serum, greenish in color and offensive. The serous portion is more easily absorbed by the diaper of the child, leaving the green mucus discharges more visible to the eye. When these discharges change to those more putrid exhalations from the mucus coat of the intestines, the danger is of course increased and the symptoms more aggravated,—sometimes, even in cases which seem to be extreme, the

disease is checked and tends to revolution and ends in recovery. Too often, however, do encouraging symptoms exist, but to delude and disappoint. The heart of the fond parent is thrilled into joy to-day, only to be more deeply plunged in anguish, as on the morrow more fatal symptoms than ever supervene. The child, however, lives on. It becomes more and more reduced to a mere skeleton; the skin becomes more loose and flabby; the face more shrunken and pale, indicating still more suffering and distress; the significant turnings of the head takes its place with other bad omens. The evacuations from the bowels in these fatal cases, suspended though they may be for a time, break forth with renewed power—other untoward symptoms complicate the case. There is a general failure of the vital forces. The disease, in defiance of all the powers of nature and the best medical aid, lays the little sufferer in the grave. To detail the treatment is but to repeat an old familiar tale, as its recital by different persons give to it its changing hue and various shades. Small doses of mercury, in the early stage especially, with the various combinations of opiates, astringents and antacids, I have found most beneficial. As the case progresses, subnitrate of bismuth, Dover's powders, acetate of lead, alternated as indicated, with the various other adjuvants, external and internal, with a constant attention to proper food and to the general support of the system, enter into the established principles of treatment in this section.

Our sickly season commences in July. It generally appears with so much regularity, that the physician expects and prepares for it with as much certainty, as does the farmer arrange his ground for corn in the spring, or for wheat in the fall. It brings with it a crop of diseases more generate than any other, in the shape of malarial fever. Here it is that until a few heavy frosts in the fall come to our relief, our medical men battle with and generally vanquish that varied type of fever known as remittent, intermittent and congestive. Commencing most generally with simple intermittent, it increases in severity and obstinacy, with the advancing season, and is succeeded by remittent or congestive. Under the disturbing influence of some exciting cause, the intermittent form is ushered in by the usual cold or chilly stage, followed by sick stomach, pain in head, back and limbs, furred tongue, accession of fever, &c. This mild form is followed later in the season with that higher grade of bilious fever, wherein there is an aggravation and exaltation of all these symptoms. The system is more prostrated and

restless, pulse quicker and stronger. There is more or less gastric or cerebral disturbance according as the gastric or cerebral form of the fever predominates in different seasons. Add to this grade, and you have sometimes, as the weather becomes warmer, the season more advanced, and the amount of sickness on the increase, cases of bilious congestive fever. These are more striking still in violence and danger. It is now that the faithful interpreter of nature and of the laws of disease must come to the rescue. Not alone with the remedies suggested by enlightened experience and science, but with the caution, firmness and decision of the true physician. With antiphlogistic remedies and antiperiodic medicines must he, in this critical hour, battle with opposing forces, or else this high congestion and raging paroxysm will maintain the victory unto death. When promptly and properly treated these autumnal fevers, however variant the type in different seasons, are generally cured. When neglected, or improperly treated, they are apt either to terminate fatally, or to run into a slow and tedious, and sometimes fatal, form of typhoid fever, more or less complicating with the original bilious remittent. Indeed this blending of the types of fever either at first, or from the cause just named, is a feature sometimes of our autumnal fevers not to be forgotten, either in diagnosis or treatment. There is more or less of it every year, and whenever or wherever it appears, demands fine discrimination and very careful treatment. Leaving out of consideration the question of uncomplicated typhoid fever which often appears sporadically, and otherwise, in this locality, we have to repeat, that in whatever form or complication malarial fever presents itself—whether as a simple intermittent, remittent, or blending of types, or in a bilious congestive form, with that prostration, high fever, delirium and yellow bilious tinge, peculiar to the skin, tongue and eyes, and incident to the danger and critical condition of a high grade of fall fever—the treatment must correspond with the indications and severity of the case. In the usual course of uncomplicated malarial fever, I have not only found quinine indispensable, but mercury in quantities and doses, to suit the grade of fever, a most important auxiliary means. Its action upon the liver, which is so greatly involved in this disease, is very necessary in those cases, and I have seen deplorable results follow the neglect of its use therein. If those physicians of Great Britain and elsewhere, who, by their experiments upon dogs, have concluded that calomel has no specific influence upon the biliary secretions, and that it is not entitled to be ranked among the cholagogues, could

make their observations upon the human subject in the diseases of these high Southern latitudes, where the liver is so evidently engorged, and calomel so strongly indicated, they might be induced to be less peremptory in their expressions, and a little more charitable to those who differ with them as to the action of calomel and the treatment of disease. I will discuss this question at more length, however, when I enter upon the more elaborate subject of the treatment of internal inflammations, and of the high congestive fevers of this southern latitude, as I shall do in my last division of the General Treatment of Disease.

Quinine, in larger and repeated doses, I administer with impunity, whenever its prompt influence upon the system is necessary. An important disease of increasing interest in our eastern section has presented me with a number of cases during the past few years. I refer to it the more readily because in proportion to its importance, the allusions to it in our standard books and journals, are too brief and indefinite as respects the relative value of its pathology and treatment. I allude to the disease known as "Puerperal Anæmia," or "Stomatitis Materna," or more popularly known as the "Nursing Sore Mouth." It has been known to prevail as an epidemic in the great Mississippi valley, where it has mostly existed in this country. It seems to prefer malarious regions. Here, the cases presented are sporadic mainly, if not entirely. This disease of pregnancy and childbed seems to be an inflammation *per se*, presenting a depraved state of the blood, attended with such a preponderance of white corpuscles and deficiency of red particles as make up an anæmic condition, or Brunet's "Leucæmia of Pregnancy," as it is called. The fact that it occurs but seldom in the lower classes, being chiefly confined to women of fine intellectual endowments, delicate organizations and nervous temperaments, who remain close at home and avoid exercise in the open air during pregnancy, point to these defects in functional action and hygienic measures, and this condition of anæmia is favorable to its production. Insidious in its approaches and deceptive in its symptoms, it is often so mild in its progress in early pregnancy as to fail to attract marked attention, or is mistaken for some other disease. Hence weeks and months of golden importance have been too often allowed to pass before proper treatment is commenced. Then it becomes so grave as sometimes to render the approach of the full term of gestation truly alarming. And, occasionally after childbirth, the case runs its course to fatality. The importance then of proper treat-

ment in the very incipiency of this increasing disease among us cannot be over estimated. Taken in time, suitable medication generally effects a cure. I have found the best treatment to consist in an administration of those constitutional remedies found in chalybeate tonics, alteratives, astringent bitters, good food and generous support, which strike at the root of the disease and effect the necessary change of the fluids from their abnormal to their normal condition. The alarm created by the appearance of those secondary symptoms of aphthous ulcerations appearing on the tongue and travelling downwards through the whole alimentary canal, and attacking the mucous surfaces of other structures, often attract such attention and local treatment to these coexistent lesions as to cause the general treatment to be neglected until too late.

Among our most common diseases, and one that seems to be alarmingly on the increase in this county, is "Pulmonary Consumption." My observations do not corroborate the opinion that either a moist or a malarious climate lessens its liability. Nor have I observed any facts to justify the too common opinion that this dreadful malady is nearly always hereditary or intimately connected with certain climates. This error, conjoined with a popular belief, too often fixing itself upon the attending physician, that the disease is always incurable, is exerting a deleterious influence upon the course of medical science and the claims of humanity. I see cases every year that could be traced to neither of these causes, but were dependent upon excess in sedentary occupations, too much confinement within doors, over anxiety of mind, bad air of apartments, disregard of other hygienic laws, and more especially for the want of clothing during our winter months, and of sufficient food the year round, which render their victims so susceptible to disease, and which, in the present day, causes so much suffering in the community, more than ever in this section in this want of food and clothing, not alone a prolific source of acute affections, but of those gradually consuming diseases of Scrofula and Consumption. And when the important fact is borne in mind that this frequent disease of Pulmonary Consumption is so generally fatal, although dependent so often upon causes which may be modified and sometimes removed by an application of the ordinary motives and principles of prudence, philanthropy and science, it is high time that our profession should more generally arouse, in conjunction with other non-professional philanthropists of the day, and address themselves with increasing vigor and faith to the

blessed work of more correctly understanding and removing the causes of this most fatal disease of the whole country. I may remark that my medical observations and experience as a Surgeon in the Confederate army during those late four years of bloody war, justifies me in the opinion, that most of those who left their homes for its active service with weak lungs and tendencies to "Phthisis Pulmonalis," and even sometimes incipient tubercles and who escaped other dangers and diseases of that conflict, returned home either greatly improved or entirely restored. I have nothing new to offer as to treatment, excepting to express my concurrence with the established opinion of the great superiority of the modern building-up treatment of tonics, alteratives, stimulants, good food, out door physical exercise, &c., over the old plan of diet, depletents, &c. I have found more general good to follow the use of arsenic when the condition of the stomach and bowels will tolerate it, than from any other single remedy. When the digestive organs are not impaired it seems to act most favorably upon the functions of nutrition, furnishing new life to the countenance, more animation to the eye, a better appetite and more general strength and flesh to the languishing patient. The recent observations of some of the most illustrious physicians of Paris, that its use in this disease also acts happily on the mucous membranes of the lungs are sustained by my experience. The inhabitants of lower Austria, Styria and the Tyrol, frequently make use of arsenic even in health, because it enables them to breathe more freely in climbing up their rugged mountains.

But whether arsenic is to be used when indicated, or the different preparations of iodine, iron, vegetable tonics, good diet, stimulants, cod liver oil, &c., according to the stage of the disease, tolerance of the stomach, or the general condition of the patient, and the attendant circumstances. I choose not to be of those physicians who honestly prefer a voluntary abandonment of consumptive patients, either to the powers of unaided nature, or to those swarms of medical sharks who, in their unprincipled course and with their captivating paraphernalia of consumptive remedies, infest every community. These medical imposters, whose flaming advertisements are seen in every newspaper and public place, rely upon meanness for a living, and fatten upon the ill-gotten gains which they extract from the unfortunate and sinking subjects of this chronic and wasting pulmonary malady, and who, as is so natural, are so generally liable to become the injured victims of the glittering hopes held out, and the lying promises made. My conceptions of duty to

myself and of a common obligation to my profession and humanity, do not encourage me, of my own accord, to abandon these trying and touching cases to the various snares thus set for them, nor even to rest satisfied with the ordinary palliations of regular treatment, except in the last stage. Rather do I elect to work on and to hope on in the faith of curing the disease by legitimate means. While its relative mortality is so fearful and discouraging to friends, and so many in our own ranks get much, very much, of this vast amount of disease, and death may be prevented by the exercise of more persistent faith and more skilful management, especially in its earlier development and inception. The progress of medical science finds me a believer in the prophylactic treatment of this formidable disease. Judiciously applied, I regard it as not only capable of preventing much suffering, but able to snatch from premature graves many a darling son or daughter—the delight of parents and the ornament of the social circle, and from the consumptive's death, many a father and mother—the pride, hope, and dependence of the family and the joy of admiring friends. Let me proceed to explain: This thing of tubercle, and how it is deposited in the lungs, &c., has long been unsettled. The most popular theory has been that it is an abnormal exudation from the blood. As we all know pathologists recognize two forms of tubercle, the gray miliary and the yellow, cheesy tubercle. Whatever the origin or nature of this tubercular deposit, its tendency, unless removed, is of course to suppurative abscess, and destruction of the tissues involved, with a gradual waste of the entire physical system.

J. H. Bennett stands most prominent among those who contend that tubercle is an exudation or abortive development of the plasma of the blood. That great microscopist, Virchow leads those who make a distinction between the grey and yellow tubucle, getting a clue therefrom, it is said, for his well known doctrine of cell growth. He and his disciples contend that the gray tubercle is but a progressive development of cells from a parent cell, and that the yellow tubercle is only the result of a fatty degeneration and disintegration of other tissues, perhaps of the gray deposit itself, or of pus, or of carcinoma and the like. They hold that this gray tubercle may cause what they denominate acute phthisis, with constitutional symptoms, not unlike those of typhus fever, for which it has been sometimes mistaken, but that this form of pulmonary disease is unlike that old fashioned form of chronic Phthisis Pulmonalis, which by its slow and wasting ravages daily lays its thousands in the

grave, and that is caused by the yellow or cheesy tubercular deposits. It is contended that this yellow material comes, not as an exudation from an altered state of the blood, but from the worn out epithelial cells of the air vesicles. That instead of being removed by the vital actions of the part, they are allowed to remain as sources of irritation, and by gradual accumulation render that portion of the lung unfit for respiration. The advocates of the epithelial origin of the common yellow tubercle, argue that their theory explains satisfactorily difficulties and problems that cannot be solved by the admission of the doctrine of exudation from the blood—that the advocates of the latter cannot show how it is that these cheesy deposits are so uniformly found on the apex of the lungs, and are so long restricted to one side of the lungs, after being deposited. They contend that no chemical or microscopic test has ever discovered any proof of that peculiar morbid condition or alteration of the blood claimed as necessary to the production of the deposit in question. Virchow says that he "found a series of tubercular deposits in different organs, never at any time exhibited a discernible exudation, but always, during the whole course of their development, presented organized elements, without its being possible to observe either in them, or before they existed, any stage in which amorphous, shapeless matter was present." He also says that "nuclei and cells are found, in great abundance, though they afterwards break up, and directly supply the material for the final accumulation of cheesy substance." Upon such and similar grounds are founded their argument, that this material is not a morbid product of exudation from the blood, but that it is more of a normal constituent, which, failing to be excreted in time, remains as a foreign body to be softened and excreted by expectoration or otherwise removed from the system. They reason that this deposit is not found in those lower and more depending portions of the lungs where movement is so free and easy, but in those upper parts where the bony structures and harder parietes do not admit of that full motion and play of the lungs necessary to the full ingress and egress of air. It is in these portions of imperfect and restricted respiratory action, except at great muscular effort, that these deposits are almost wholly found, and it is held that these accumulations would never occur if there was sufficient force to prevent it. It is claimed that this force or agency exists in the pressure of the air vesicles, and in the power of respiration to press out their contents, and that such power mainly depends upon the vigor of the respiratory

action. That while the peristaltic action and passing substances of the *alimentary* canal are competent to throw off from the mucous surface the worn out epithelium, the ciliary currents of the *bronchi* are not always thus competent, and that as an auxiliary therefore, a free and full action of the respiratory apparatus is necessary. Adducing such reasons in support of their conclusions, those men not only contend that consumption is curable, but, that as a disease, it is not hereditary. They admit that the *tendency* to pulmonary consumption may be transmissible in the physical formation or mental temperament of the offspring, but that the *disease itself* is not handed down from parent to child, and does not claim its victims at birth. The celebrated Dr. Walshe says, after a careful investigation of the family history of four hundred and forty-six (446) patients with this malady, that "phthisis in the adult hospital population of Great Britain *is to a slight amount only*, a disease demonstrably derived from parents."

Not to pursue any further the reasoning of the advocates of this plausible and more pleasing theory of the origin, nature, and curability of this destructive disease, should we not feel encouraged to have more faith, and to use more perseverance, in the prophylatic measures so naturally suggested by the theory presented? As is a man's faith so will he be, as he thinks and resolves so will he put forth his efforts and continue in his hopes and energies.

There is encouragement, I repeat, in these cases of pulmonary consumption. The great, golden rule is to sustain and bring up the general strength. *The entire physical system should be raised to the highest possible vigor. In the young physical culture is the safeguard against consumption.* Incipient phthisis is always preceded by debility. This debility engenders like feebleness of respiration, and this accompanies or rather produces insufficient pulmonary excretion with its consequent accumulation of this epithelial debris. The forerunner of debility may arise from inadequate nutrition or deficient food, protracted sickness, overburdening mental cares and anxieties. I have often thought that this alarming increase of consumption here, especially since the war, was in all probability owing mainly to the general and well known prevalence, since then among us, of these very causes. The deficient clothing and food and general suffering, as I before said, of our colored population, doubtless bears an important part in the production of a greatly increased mortality from consumption among that race in the Southern States.

Drive off this actual or threatened accumulation of tubercular deposit by all those means which will add to the flesh and general strength, and by all those measures which will give the greatest vigor to the respiratory act and add to the fullest expansion of the entire lungs. Special and methodical attention to full respiratory action and to a development of the respiratory muscles—active muscular exercise in the open air—a free use at all times of fresh air—a diet nutritious and digestible—suitable protection to the skin—united to a habitual exercise of hope and cheerfulness, will not alone insure general health to the lungs and body, but will, in a large majority of cases, prevent the formation and secure the removal of those pulmonary deposits, upon which the ravages of consumption are based. Why do children enjoy such a happy immunity from its attacks? Because the activity of their habits, the energy of their respiratory movements, and their love, when well, of the open air, which gives them a plenty of oxygen and a full expansion of their lungs, are safeguards to the accumulation of tubercular material. The waste and repair of tissue in children is very rapid, and were it not for the energy and efficiency of their habits and love of play and exercise, they would not be blessed with this fortunate exemption. But when they arrive at the age of puberty their pleasures and habits change. The boy is confined at home or at school, and hours which should be given to play or the exercise of his lungs, finds him at his books or at some other close occupation that denies exercise to his body and expansion to his lungs. It is the same with the girl. She no longer romps over the fields, or sings gladsome songs as she glides rapidly along wherever she pleases. But she is placed under the restrictions of fashion and under the discipline of home and school, which regards too little the claims of health and good lungs. She is imprisoned in tight dresses, her neck and arms perhaps bare, and is denied the merry laugh, the running gait, and other exercises so much needed to give form and grace to her body and expansion to her lungs. Can we wonder soon to see that promising boy and that charming girl yielding to those seeds of consumption engendered by the unnatural and cruel change to which unwise regulations of home and unphilosophical rules of school subject so generally the youth of our country? The wild beast, confined within his iron bars, often dies with consumption, while the parents continue to roam their native forests to an extreme old age, and die from some other cause.

The remarkable benefit derived by our consumptive

soldiers during the late war, from the fresh air and rough living of army life can never be forgotten while memory reverts to those trying days, or history shall transmit their unequalled heroism to future ages. They left home, hosts of them with feeble lungs, often bearing incipient tubercles. Others, actually were wasting away with night sweats and profuse expectoration, and were, on this account, never expected to return. A decided improvement seems to have been the result in nearly every instance, and complete recovery followed most of those unpromising cases. Those who, with weak lungs and newly formed tubercular deposit were able to escape other casualties of war, returned home, as I before said, always greatly improved and generally restored. If such examples and facts do not bear their valuable lessons of wisdom and of warning to us all, then may we turn a deaf ear to the teachings of experience or the deductions of observation. It is good fresh air, then, and not confinement in ceiled houses with closed doors that our people should value, especially those who dread, or have, consumption. Muscular exercise, free and persistent, with that all-important attention to the functions of nutrition—to digestion and assimilation, will save our patients from consumptive graves, if, with living faith in the means suggested, we can in time have the entire management.

To provide for the physical education of the children around us, is as much a duty, sadly though it is neglected, as is the education of their morals and minds. He whose children and wards are liable to this fell-destroyer of so many of the human race, should especially bear in his bosom at all times an enduring consciousness of the duty which this solemn truth suggests. As conservators of the public health, let us on all appropriate occasions, impress upon every parent, guardian, and instructor of youth, the vital importance of protecting children with warm clothing—of securing for them an abundance of fresh air and sun-light; that all their rooms and apartments be well ventilated; that bathing be made a family arrangement; that the diet be plain and nutritious; that proper habits of self-control in eating be acquired, and that exercise sufficient to develop all the muscles be regularly observed. Due attention to these things is not alone necessary to the health, comfort and usefulness of the child, but essential to the happiness of parents and to the general good and prosperity hereafter of the whole State and country.

GENERAL TREATMENT OF FEVERS AND ACUTE INTERNAL INFLAMMATIONS.

He is the wise physician who, bringing to his daily practice a mind untrammelled by prejudice or preconceived ideas of earlier training, follows the teachings of observations and the legitimate deductions of science. Such a practitioner, while informing himself of the views of others and the doctrines of his profession at different epochs, will at the same time carefully observe for himself. Thus armed he will go forth to battle with disease in that spirit of independence and self-reliance which forms a material attribute of every truly successful physician. He treats his patients upon general principles, modified not only by the suggestions of each particular case, but by the surrounding circumstances and prevailing tendencies and indications. Profiting by the observations of every case, and the experience of the changing seasons and years, he heeds on the one hand neither the extreme views of blind devotees of the past, nor on the other the assumptions of the ultra advocates of the innovations and reforms of the present. But gathering as a philosopher from the past, as well as the present, avoiding those Scyllas and Charybdes of his profession that have always existed, he becomes, in truth, the genuine eclectic in its true sense, learned and unprejudiced while conservative and successful. Pursuing such a course of common sense and enlightened experience, he cannot fail to consult as guides the great Books of Nature and the Laws of Disease. This accustoms him to follow the methods suggested by the changing forms and types of diseases of the different seasons and years, modified by the locality, climate and varying indications of each individual case. From such stand points arises the general treatment of every physician, who, leaving routine and pre-existent partialities and prejudices to such inferior minds as will not study and think, is governed by his own knowledge and observation as connected with the broad and established principles of his profession. Such a course may not win for him the admiration of shallow minds or the sensational applause of the fickle multitude so prone to be captivated by attractive novelties and the bold innovations of extremists. But instead thereof he will avoid the injury which such men do to science and humanity. He will, in addition, justly secure the more enviable reputation of skill and success in practice. He will gather around him the sincere friendship and lasting esteem of the learned, the sensible, and the

appreciative. When ultraists and extremists have gone down in ridicule, or are forgotten in their graves, his memory will be fondly cherished, and remain to illumine the pages of Medical History.

In this section of the State, we treat disease according to indications. In one or more seasons the asthenic type is so prevalent, the tendency so strong to the typhoid form, that in acute inflammations and fevers we apply the antiphlogistic treatment with much caution. In such years we seldom use the lancet, except in occasional instances of violent inflammation and severe congestive fevers. At other periods we find the disease more sthenic in character—the inflammatory symptoms of a higher range—cases more violent and hurry more rapidly either to resolution, if properly aided, or to a fatal end if neglected or improperly treated. Under such indications it becomes our duty to apply with a bolder hand the antiphlogistic treatment—sometimes using the lancet, more generally those mercurial purgatives, blisters, local depletion, diaphoretics, and depressants which in this locality cannot be dispensed with when our ordinary congestions and acute inflammations assume an aggravated character. So that our treatment depends upon the prevailing type and individual indications. This is the result of my observation and experience, based upon a laborious practice for the last twenty years in Eastern North Carolina. Earlier in my medical life the sthenic tide was up and my lancet was often used. For a number of years past it has become somewhat rusty, because the asthenic waves have prevailed, though it remains in my pocket case as a necessary companion. Well do I remember, as my note book shows, the high grade of many of my cases treated in earlier life, and I used the lancet freely and often and with marked benefit. It was indispensable that I should open the batteries of my antiphlogistic treatment in order to save human life. But in more recent years the indications are changed—the type is lower, and I bleed more rarely and deplete less freely. I am aware that Markham, Watson and other distinguished medical men maintain the contrary theory, but the great majority of the master minds of the profession are united with the great masses of active practitioners in support of the belief that diseases change in their type. If we could discard the word type and regard the discussion as between sthenic and asthenic forms and dispositions much embarrassment would be prevented and extraneous matter avoided. But we must take the question as it stands: that nature is powerful and often efficient to

throw off disease no one will deny; that the expectant system will sometimes answer, cannot be disputed. No judicious practitioner ever fails to call to his aid all the conservative strength that is possible from this source. Perhaps the truth more generally lies between the extreme advocates of the phlogistic and antiphlogistic systems. Each correct under certain circumstances, both in error under other conditions. Especially do they seem to be wrong in the uncompromising tenacity with which they hold to their peculiar views, unmodified by circumstances. However this may be, let us, I repeat, maintain ourselves free from prejudice and passion in the contests of those rival theories that have so long divided the medical world, and with the single aim of medical truth follow observation and the legitimate deductions of medical logic whithersoever they may lead.

These sentiments do not create any sympathy in me for that wholesale proscription and sweeping denunciation of the antiphlogistic system so generally indulged in by the followers of Todd, Bennett & Company. It has become too fashionable to denounce as old fogies and as enemies to true medical progress those who refuse to join the ranks of these proscriptive men. Our medical students, who go to more northern medical colleges every year for instruction, are taught by professors who never saw a case of malarial fever or treated a case of our high grades of internal inflammation, that it is suicidal to bleed and ignorance to give calomel, and they are taught to regard as behind this enlightened age those Southern practitioners who presume now to use in any case these antiphlogistics. I conceive it a duty, therefore, to speak out on this subject *now*, as these onslaughts upon truth and the practice and writings of a very large majority of the great, leading medical minds of all ages and countries, are not conducive to the interests of medical science or to humanity, so long as their heresies remain unanswered and are not exposed. I am the more disposed to discuss this question, because of the industrious efforts being made, within a recent period, to spread in our own State these dangerous doctrines of Todd, Bennet & Co. Their followers are earnestly soliciting their acceptance, by the profession of our good old State, so uniformly unwilling of her own choice to accept heresies of any kind, whether medical, political or religious. One of our own sons, a gentleman of talent and promise in his profession, a prominent member of this Society, bearing an honored name, which, by its high accomplishments and bright pro-

fessional lustre, has illumined the medical annals of the State, has fallen from grace, and now stands forth among us as the representative man in North Carolina of this mischievous doctrine. I need scarcely say that I allude to William A. B. Norcom, M. D., of Edenton, whose Annual Address before this Body at Warrenton, in May, 1868, has atttracted much attention, and deserves to be noticed, in our general allusions, to the sentiments of those whom he quotes and endorses. However ungracious the task, it is due to science and the profession that such sophistry should be exposed, and such false premises and illogical deductions overthrown. Dr. Norcom's address is ingenious and well put together, but untenable and injurious upon medical practice. It is the more surprising and to be regretted that he has fallen into these errors, because his whole life has been passed amid disease that has presented indications I respectfully submit, calling for different treatment than that he now advocates. Unlike those noted authors whom he quotes, scarcely one of whom knows anything practically of of the nature, grade, and demands for treatment, of our Southern acute diseases, he is one of our own physicians, daily in contact, from his location, with malarious fevers and acute internal inflammations, demanding, as I insist, a more rational treatment than he applies.

The opponents of blood-letting and mercury assume, as their premises, that the progress of medical science and the revelations of truth have subverted the antiphlogistic system, and, in place thereof, have substituted alimentation, stimulants and similar remedies. That blood-letting, mercurial purgatives and other depletants and lowering remedies are injudicious and uncalled for, and that they prolong, rather than shorten disease—increase, rather than decrease mortality. Respectable medical authorities, not novel to the profession, are quoted in support of these statements. Some of the very authorities, quoted in support of the position taken, may be arrayed in opposition thereto in other portions of their writings. When Dr. Norcom mentions one prominent author, in vindication of his views, he might have named dozens equally high in authority against himself. He fails to acknowledge that the grade of fevers and inflammations of this latitude generally produce such disturbances and indications, as to demand a more vigorous treatment than do the acute diseases of the regions embraced in the fields of practice of his learned supporters in Europe and elsewhere, who wage this war against the lancet. There the observations of those authors are based in the main upon

Hospital and Dispensary practice, when most of the cases treated have passed from the acute to the chronic stage before admission, and, of course, rendering blood-letting inadmissible. Most of their cases are asthenic in character and different from the acute diseases of our latitude that are more phlogistic and demand a more active treatment. "Distance," too, "lends enchantment to the view," and names arrayed here as distinguished lights in the profession and as offered to all lowering treatment, will be found by Dr. Norcom to be more transcendental extremists, patronized but little at home and more respected abroad. They will suffer in comparison with the scores of those successful and illustrious men in all ages, who maintain adverse views, who were sensible and practical, and who contribute to adorn the brighest pages of Medical History.

Dr. Norcom sets out with the emphatic declaration that "great progress and improvement have taken place in our profession," and says that "nowhere is this more apparent than in the treatment of Acute Internal Inflammations." The improvement on this point is questionable. There is no fact to prove that the treatment of acute internal inflammations has improved. For thousands of years the anti-phlogistic treatment was employed successfully by the greatest physicians—the founders of the science of medicine, to whom it owes everything, commencing with Hippocrates and running down its illumined pages to Watson, Aitkin, Wood, and others of the present day. The efficacy of the anti-phlogistic plan has been attested by the experience and observations made upon millions and myriads of cases. Until the new lights can show better and more numerous authorities for the superiority of their so-called novelties (but really not) the improvement is not established.

He next says: "Foremost in importance stands the enforcement of the study of their Natural History and a revival of the *Hippocratian* doctrine of a greater reliance upon nature rather than of a perturbatory and *lowering treatment* and the substitution of a proper and sufficient alimentation for low diet—yes we may say starvation."

The promulgation of this statement is founded upon a total misconception or misapprehension of the doctrines and practices of Hippocrates. So far from being offered to lowering or anti-phlogistic treatment, he was one of its most constant and enthusiastic supporters, in fact one of its very founders. It is true he employed it judiciously and wisely, but on all proper occasions, especially in the treatment of acute internal inflammations, he was one of the

boldest practitioners the world has ever known. This is proven by the following quotations from his works, within the reach of every physician. I quote from the translation of Dr. Francis Adams, published by the Sydenham Society of England, London 1849 :

"1st. Bleed in the acute affections, if the disease appears strong and the patients be in the vigor of life, and if they have strength.

"2. Again : Hypochondria not from retention of flatus, tension of the diaphragm, checked perspiration, with dry orthopnœa, when no pus is formed, but when these complaints are connected with obstructed respiration, more especially strong pains above the diaphragm—diseases connected with a collection of humours—all these diseases do not admit of resolution if treated first by medicine, but venesection holds the first place in conducting the treatment.

"3. Again : When a person suddenly loses his speech, in connection with obstruction of the veins, if this happen without warning or any other strong cause, we ought to open the internal vein of the right arm and abstract blood, more or less, according to the habit and age of the patient.

"4. Again : Patients seized with Epilepsy or Apoplexy are immediately to be bled at the commencement.

"5. Again: In peri-pneumona and pleuritic affections, bleed largely and boldly, if the pain be acute, so as to bring on *delinqum animi*.

"6. Again : When Pneumonia is at its height the case is beyond remedy, if he is not purged. In Quinsy, bleed in the arm and open the sublingual veins.

"7. Again : In Dropsy, if he labors under difficultiy of breathing, if it is in the summer season, and if he is in the prime of life, blood should be abstracted from the arm.

"8. Again : The most important point of regimen to observe and be guarded about in protracted diseases, is to pay attention to the exacerbations and remissions of fever, so as to avoid the times when food should not be given, and to know when it may be administered without danger. This last season is at the greatest possible distance from the exacerbation.'

"9. Again : If you think expedient to let blood, see that the bowels be previously settled, and then bleed. Conjoin abstinence, and forbid the use of wine, and complete the cure by means of a suitable regimen and wet fomentations.

"10. Again : For extreme diseases, extreme methods of cure as to restriction are most suitable. When the disease is very acute, it is attended with extremely severe symptoms

in its first stage, and, therefore, an extremely attenuating diet, must be used. When this is not the case, but it is allowable to give them more generous diet, we may depart in so far from the severity of regimen as the disease by its mildness is removed from the extreme. When the disease is at its height, it will then be necessary to use a more slender diet. We must retrench during paroxysms, for to exhibit food, would be injurious. And in all diseases having periodical paroxysm we must restrict during the paroxysms."

How unjust then to the memory of this immortal Father of Medicine, the very author of blood-letting and rigid diet, that Dr. Norcom should refer to him in support of the theory of a greater reliance on nature rather than upon a perturbatory, and lowering treatment. True, Hippocrates relied much, as all sensible men do, upon the powers of nature in the treatment of disease, but we see from the above and similar quotations that might be given from him, that, when treating severe inflammations and high fevers, he used additional means as do judicious practitioners at this enlightened day. From these passages it will be clearly seen that Hippocrates was one of the prime originators of the lowering treatment, bleeding his patients *freely* and as largely as they would bear, and following it by rigid diet. He even forbade the use of barley water until the inflammation was arrested. How little support do such or any of the writings of Hippocrates give to the plan pursued by Todd, who says: "there is no necessity for having recourse to violent anti-phlogistic measures in cases of pneumonia [Clinical Lectures Phil., Ed. page 271] and who in "rapidly spreading pneumonia" gave "half an ounce of brandy every hour," [page 266 ibid] and in another case of laryngitis, with pneumonia and delirium, gave *half an ounce of brandy* every *half hour*. It is true the patients recovered, but have they not recovered after the worst treatment ever invented? How different the treatment of Hippocrates and that of Dr. Norcom, who, to a child eight years old, with a severe pneumonia, with pulse 140 and respiration 70 to the minute, gave three pints of milk, one and a half pints of rich soup, with *little* alcoholic stimulus every twenty-four hours! Dr. Norcom's treatment is neither that of Hippocrates or Todd.

Leaving Hippocrates, we find that *all* the greater classics of antiquity advocated judicious anti-phlogistic treatment in acute internal inflammations. Celsus recommended both venesection and cupping—[Edinburg Ed. 1814, pp. 60-64.] in pestilential and ardent fevers, he says, "if the strength will admit it is best to let blood." [Page 103.] In the case

of a semi-tertian he says: "unless there is some important reason against it, blood ought to be let in the beginnig." In pleurisy he says: "Now the cure of a violent and recent pain is letting of blood." [Page 161.]—of pneumonia and its cure he says: "It is fit if the strength will admit of it to let blood." Of the disease of the liver and its cure he says, [page 1641] "in the beginning the best thing is to let blood, then the bowels must be opened—if this cannot be done otherwise by means of black hellebore." "In ileus the cure is letting of blood."

If we turn to the pages of Galen we find that he is a strenuous advocate of anti-phlogistics in all acute internal inflammations. Thus in his books on Therapeutics, addressed to Glaucus, he says: "We will say then that it is necessary to consider the age of the patient, the season, the country, the actual condition of the air, the strength of the patient, his complexion, his habits, and even the state of the disease. In fact you will ascertain from these whether it is necessary to evacuate or not, and when and how it ought to be done, for example in the diathesis in question. Thus if the determination is to the knee, the joint suddenly swelling greatly, if the whole body is redundant with blood, the patient vigorous, the disease occurring in the spring in a very temperate climate, and the subject a youth or young man, it will require an evacuation of blood from the upper parts, and to select from the veins of the fore arm—the internal or median vein. If one of the superior parts are affected the blood must be drawn from the inferior region." [Vol. 11, pp. 746–50.] Also in inflammation of the uterus, ovaries, spleen, liver, angina, affections of the head, &c., bleeding is enjoined and the mode in which it is to be employed and the locality of the operation minutely described—[vol. 2, pp. 755–6.]

If we consult Aretæus we find him endorsing the treatment advocated by Hippocrates and Galen. He recommends bleeding in apoplexy [page 259] and cupping [page 265] in tetanus moderately, abundantly in Cynanche with light diet, [page 270.] In pleurisy repeated bleedings [page 286] and cupping [291] are recommended. Repeated bleedings in pneumonia [page 296] in persons of plethoric habits, in ileus, in acute affections of the liver [page 335] and in fact in all acute diseases attended with fever and inflammation.

The observations of Paulus Ægineta, [Syd. Soc. Ed. 1844, London,] one of the most celebrated writers after Galen, proves that blood-letting was the universal practice among the leading authorities of his and previous times.

At the same time he employed it judiciously just like all men of good sense use everything—cautiously when doubtful and withholding it when injurious. Paul of Egina says that "if the peripneumonia was the original affection and the strength admit we must open a vein, or if not we may cup, proportioning the evacuation of blood to the powers of the patient, but if the disease originate from the conversion of other diseases into this (secondary pneumonia) we must not have recourse to venesection, more especially if the disease be of a *chronic nature*, and if blood had been previously drawn." What admirable rules! In all ages we see that those who employed bleeding boldly, yet in many cases withheld it altogether. Indeed many things now promulgated as new more properly belong to the men and ages of the past. Among the Arabians who treated pneumonia like the Greeks, and which Haley Abbas describes as a *hot inflammation* of the lungs, for which he recommended bleeding, cooling and diluent drinks, &c. We still find Rhazes describing a species of pneumonia which was treated with tonics, wine, &c. [Commentary Paulus Egineta vol. 1—482.]

If we come down to Sydenham we find that in acute internal inflammations—pleurisy for example—"the fever and its most dangerous symptoms were best relieved by bleeding in the arm, applying blisters to the neck and giving injections every day." Change in the character of disease was even then sometimes observed. He says: "Now though I conceive that a true and essential pleurisy, which, as shall hereafter be observed, happens indifferently in all constitutions, does in all years equally indicate repeated bleeding; yet it sometimes happens that the peculiar epidemic fever of the year, from some sudden alteration of the manifest qualities of the air, readily throws off the morbific matter upon the lungs and pleuræ, whilst the fever, notwithstanding, continues exactly the same. Wherefore, in this case, though bleeding may be used to abate the symptom when it is very violent, yet, generally speaking, little more blood ought to be taken away than is required by the fever whenever this *symptom* depends."—[Sydenham's Works, London, 1788, vol. 1—339.]

The great Cullen, whose authority was for a long time recognized throughout the whole medical world, was, as is well known, an advocate of the antiphlogistic treatment in acute internal inflammations and fevers. He says: "Nothing is more evident than that blood-letting is one of the most *powerful means* of diminishing the activity of the whole body,

especially of the sanguineous system, and it must, therefore, be the most effectual means of moderating the violence of reaction in fevers. Taking this as a fact, I omit enquiring into its mode of operation, and shall only consider in what circumstances of fever it may be most properly employed. When the violence of reaction and its constant attendant, a phlogistic diathesis, are sufficiently manifest, when these constitute the principal part of the disease and may be expected to continue throughout the whole of it, as in the case of synocha, then blood-letting is the principal remedy and may be even played as far as the symptoms of the disease may seem to require and the constitution of the patient will bear. It is, however, to be attended to, that a greater evacuation than is necessary may occasion a slower recovery; may render the person more liable to a relapse or may bring on other diseases." He then states under what circumstances blood-letting is to be used in fevers and inflammations, and they are as follows:

"1st. The nature of the *prevailing epidemic.*

"2. The nature of the *remote cause.*

"3. The name and climate in which the disease occurs.

"4. The degree of phlogistic diathesis present.

"5. The age, vigor, and plethoric state of the patient.

"6. The former diseases and habits of blood-letting of the patient.

"7. The appearance of the blood drawn out.

"8. The effects of the blood-letting that may have been already practised."—[Vol. 1, pp. 58-59.]

To these names may be added those of Booerhave, Andral, Chomel, Lænnec, Louis, Grisolle, McIntosh, Valleit, Gintral, Stokes, and the great French medical philosopher, Bouillaud, whose directions to bleed freely in acute diseases I have heard from his own eloquent lips, as I followed him through his wards in the celebrated *de la charite* hospital at Paris. In fact there are but few physicians of note who cannot be quoted as authority in support of the antiphlogistic treatment in acute internal inflammation. And yet these great men are charged with being guilty of a reckless and profligate waste of human blood. They lay down the rules by which this treatment is to be guided, and these rules are as good now as they ever were. If our acute internal inflammations of the present day were attended by a hard, full pulse, headache, delirium, redness of face and ardent fever, we would bleed as much as ever, but this is not usually the case. The grade of reaction is lower; the type usually typhoid or asthenic, and we have, therefore, adopted

a more moderate treatment, just precisely as they *advised*, and even *commanded*. By no means would we underestimate the importance of improvements in physiology and pathology in the diagnosis and treatment of disease, but the employment of remedies is to be guided by *results*, and surely we arrogate to ourselves undue importance in assuming that we of to-day are *better judges* of *results* than the long list of illustrious names before us. The mass of the profession indeed began to employ bleeding with more caution long before the great lecturers said a word about it. Men of practical common sense in the backwoods, remote from the centres of learning, and who never read a medical book or journal, recognized this change of disease and demand for a change of treatment just as soon as this new party, so-called, of Todd, Bennett & Co. Men of common sense, who are not led off by the power of prejudice or the charms of novelty, will profit by the lessons which these facts teach. Every physician, endowed with powers of common observation, who is conversant with the history of medicine, has a good share of clinical experience, and refuses to allow his mind to be confused by narrow circumscribed theories, is aware of them and *has always been* and *always will be guided* by them. Men may fulminate against mercury, tartar emetic and blood-letting, still the judicious and discriminating practitioner will ply them with success and snatch his patients from the jaws of death, at the same time that he guards against their improper use and bad effects. He will also seek constantly for such efficient aids and substitutes as observation, accident or experiment are constantly offering to his notice. He will learn something of the Natural History of Disease from Hahneman, of the use of cold water from Priestnitz, of the expectant method from the French, and of the capacity to endure alimentation and stimulants from Todd & Company. He will be ready to learn, but will not discard good remedies until others are proved to be better, numerous, repeated, prolonged trials are necessary before he gives up *Rules of Art* established for centuries.

Again, says Dr. Norcom: "Let us bear in mind that there are no foreign forces to be attacked, nor is there an excess of vitality but a deficiency of the powers which naturally reside in the organism. Indeed it may be that the cause of the attack, which demands an aid, is an already deficient vitality. I am every day more and more convinced that a recognition and observance of these important facts must form the basis of successful practice. Rather than being too intent upon driving out the enemy, let us busy our-

selves, as Dr. Bennett says, to secure the safety of the fortress—let us try to bring the individual up to his physiological status. In a word, let us help him to restore his natural powers. This support can only be given by food. As Dr. Hewett says, nutrition is the basis of the treatment of disease and no other is possible for a rational system of medicine."

The plain English of this paragraph, and the gist of the whole address, is, that disease arises from *inanition*, is always asthenic in type, and always requires the same treatment—"*support*"—which can only be given by food. This is not only erroneous, but downright absurdity—not only unsupported by facts, but in direct antagonism to facts, and the daily observations of every correct medical observer. Let us give an instance: A man in the vigor of life, after having partaken of a full dinner and washed it down with brandy and wine, falls from his chair in a fit of apoplexy, shall we give him more food to cure him? Shall we attempt to induce him to eat another dinner and drink more wine, or relieve the oppressed brain by bleeding and purgatives, cold applications to the head, &c.?

A young man of full habit, (if these toddyists will admit a man *can* possess a habit *too full*) who has not missed a full meal for years, is suddenly seized with acute asthenic pneumonia, agonizing pain in the side, full bounding pulse, intense headache, difficult breathing, with a sense of weight and oppression in the chest, nausea and vomiting, what must we do? Give brandy and food? Can he digest it even if he can retain it upon his stomach? Can any sane man say that *nutrition* can be accomplished in the condition of that man's system? On the other hand, is it not known as positively as any thing in medicine can be, that a free bleeding has relieved this condition of things, in some instances, as if by magic, more slowly but surely in others? Are not cases of this kind cut short by antiphlogistic treatment? Is not human life saved by such means? Let the great lights of medicine answer. Says Andral [Cours de Pathologie Intern, Tome 11, p. 34—Paris, 1848.]—"For many centuries the treament of pneumonia has been nearly the same, and it may be and has only varied in degree. Blood-letting has constituted its basis. The advantages which it here produces is much more direct than in other inflammations, for in diminishing the quantity of blood traversing the lung in a given time, it diminishes the activity of its functions—a result which must assist in the most efficacious manner in the cure of pneumonia." "Venesec-

tion is the method to which we ought principally to have recourse. This especially at the *commencement* of pneumonia, when the lung is only engorged that a copious bleeding often suffices to remove the disease. It is then a heroic means whose advantages can be rarely appreciated in hospitals, where the patient only arrives some time after the invasion, but which, in civil practice, cannot be too highly recommended. Sometimes bleeding does not remove the disease, still it is not less happy in its results. As the blood flows, the patient feels his respiration less obstructed, expectoration becomes easier, the sputa less viscid and less rusty. Then the pneumonia resumes its course, and, if the bleeding is repeated, a new amelioration results."

Valleit sums up the use of bleeding in a few words, and as follows: "If the pulse is strong, full and hard, bleeding ought to be insisted upon; if it, on the contrary, becomes feeble, small and contracted venesection should be renounced."

Louis, who certainly cannot be accused of any undue bias towards the antiphlogistic treatment, thus sums up his observations: 1st. That blood-letting has a happy influence in the march of pneumonia; that it shortens its duration, but that this influence is much less than usually imagined; that the patients who are bled in the first few days recover, all other things being equal, four or five days sooner than those who are bled afterwards. 2nd. That pneumonia cannot be jugulated by means of bleeding, unless it is in the *first days* of the disease. 3rd. That tartar emetic given in *haute* dose when bleeding, appears to have no influence, and, therefore, the cases are grave—has a favorable action and appears to diminish the mortality."

Lænnec, whose nice ear followed the increase and subsidence of pneumonia, says: "I treated, in 1824, at the clinic of the Faculty, with tartar emetic, twenty-eight cases of pneumonia, either simple or complicated by slight pleuritic effusion. All the patients were cured except a cachectic septuagenary, who had already fallen into senile dementia, and who took but little antimony because he supported it badly, yet, nevertheless, the most of these cases were very grave."

No little of this antagonism of doctrine and practice seems to arise from the fact that the opposing parties are speaking of two different things—one seems to be writing of sthenic and the other of asthenic pneumonia—diseases as far apart as the antipodes. The reaction in the one case is vigorous—in the other weak. They require, of course, opposite

methods of treatment. The disagreement, moreover, sometimes arises from the fact, too often disregarded, that in malarious districts a form of disease is recognized of which malaria is an important element—a disease arising not so much from deficiency or redundancy of blood as from *poisoned* blood, which *deranging the forces regulating* the circulation of the part, gives rise to hyperemia and inflammation. In this disease, bleeding can only be moderately employed with safety, and then in the exacerbation. Nor does it, like all other malarial diseases, bear alcoholic stimuli well, as is well known to practitioners in malarial regions, but is mainly controlled by a remedy which, though sedative in large doses, has an action *sui generis* in removing the local determinations and arresting the course of the febrile malady, of which they are the local expression.

But this new party, as they term themselves, though their doctrines are as old as Arabian medicine, are not content with advocating their treatment as applicable to the diseases of the present. They desire to cast odium upon the *past* history of therapeutics, thinking thereby to glorify themselves. According to their views, disease has never changed in the character of its reaction, and never will; that inflammation is always, and ever will be, the same,—a position totally untenable as regards the past, and merely hypothetical in reference to the future. It need not excite surprise, if in a few years, they are found advocating bleeding, tartar emetic and calomel. They certainly must, if the pulse again becomes full, hard, bounding and resistant as described by the old authors quoted: *Now it is soft, compressible, contracted and frequent.*

But in claiming that the recovery of their patients is due to nutriment, they forget that in the first stage of acute internal inflammation, nutrition is impossible. The patient loathes food, and, if it is forced upon him, his stomach cannot digest it, and it remains there a *foreign body*, or is rejected by vomiting. The very fact that digestion returns afterwards, is a proof of *convalescence*, not of *cure* induced by it. When healthy appetite returns, disease is fleeing, and the capacity for *nutrition* is a *consequence*, not a *cause* of the recovery of the patient. In how many cases of acute internal inflammation can you succeed, in inducing the patient to take food or even stimulants, without marked aversion if not rejection? Nearly all fevers and inflammations commence with nausea and vomiting, furred tongue, anorexia, more or less epigastric tenderness, constipation or unhealthy stools; the secretions are arrested, diminished or prevented, the

gastric fluids especially, thus rendering assimilation difficult or impossible. Do not these facts annihilate the theory of the stuffing and stimulating treatment? Does not the physiology of digestion combine with the enlightened experience in disease of every unprejudiced physician in announcing the falsity of the doctrines of this so-called new party? Do not physiology and pathology unite with therapeutics and medical experience everywhere in overwhelming Dr. Norcom's misapplied strength of alimentation and stimulation in acute internal inflammation? True, the period arrives under all methods of treatment, or under none at all, when the patient requires nourishment. Then, also, does he, as a general rule, desire it. But I repel the imputation upon the great men of our profession in the past, that they *starved* their patients, and did not have sense enough to recognize the importance of "support," when the proper time came for it. That physician must indeed have read the past records of medicine with but little profit who has not found that all judicious men seized with avidity the first opportunity for building up their patients, when the proper period came. Although bleeding, &c., may have been the main remedy, yet they prescribed it under certain wise rules, diminishing it, suspending it, and even rejecting it altogether, when circumstances of age, climate, country, locality, constitution, complications and anterior conditions were opposed to it. The change in the character of *disease bearing the same name*, is recognized by the great masters at every period in the history of medicine, and their treatment was varied according to circumstances. In epidemics of acute fever and inflammation of an asthenic character, bleeding was renounced by physicians a thousand years ago, and a corresponding medication adopted. History denies the right of any one to pronounce it *new*, and repudiates those who now claim credit for originality.

The fear of bleeding has become a *phobia* of the day. As before intimated, swarms of young medical graduates come forth every Spring, from Northern Medical Colleges, to settle in this Southern land, their minds filled with prejudice at their institutions against venesection, calomel, &c., and boasting of the superior remedies of alimentation and stimulation in the treatment of our Southern fevers and inflammations. It is time for the South to ask whether duty to science and to ourselves does not require a change in this respect—whether we should not cease to patronize medical heresies and to seek to turn the tide of medical pupilage to our own languishing schools, whose professors, not less able

nor skilful than the ablest of the North, teach doctrines generally more in unison with the laws of Southern diseases and the experience and practice of enlightened Southern practitioners. Under the constant influence of these false teachings, and such like causes, it has so much become the fashion *not* to bleed, that cases imperatively demanding it often suffer and die from its neglect. Men do not die so easily from a small loss of blood as these terror-stricken alarmists imagine. Look how many cases of protracted typhoid fever began to improve after copious hemorrhages from the nose and bowels! Every day we see *spontaneous hemorrhage* improving the condition of patients, even those suffering from tubercular consumption. Every fall, during the prevalence of those high congestive fevers of malarial character that are every sickly season, more or less common in these eastern counties, do I meet with cerebral congestion relieving itself by hemorrhage from the nose, when proper depletion has been neglected in the outset, and without which depletion or spontaneous hemorrhage death would have resulted.

In regard to the expedient method of treating disease, or what amounts to the same thing, Dr. Norcom's plan of treating acute internal inflammation, there is every reason to believe that this was the first plan adopted in the infancy of the art or even before art existed. *Men of course were led to seek for remedies because of the results of non-treatment. If the powers of nature alone* had been found *efficient to control and cure disease*, of course no one *would have wished for more.* But it must have been because this was *not* the case; it must have been owing to the *fearful and fatal* results of disease when left to the *unaided* powers of nature that men eagerly sought for remedies. Therefore the animal, vegetable and mineral kingdoms were diligently explored to find relief from pain and protection from death.

It is fashionable to talk about a neglect of the study of the Natural History of disease being prevalent, but from the commencement of medicine this has been the object of the greatest physicians, from Hippocrates down to Louis. What better or more numerous examples could have been wanting than in the thousands of patients placed upon the gum water treatment of Brouissais and the wholly do-nothing treatment of Hahnemann! And yet what rational, scientific man of the present day is content with the results of their treatment? What admirable pictures of the Natural History of diseases were given by Hippocrates, is attested by every author who has perused his works. What masterly delinea-

tions of the same were given by Celsus Aretæus, and Galen, and in our day who complains of the clinical histories of disease as given by Louis, Andral and Trousseau? In cases of pneumonia we have seen that Hippocrates first used simple fomentations before bleeding. Was not this great man able to discover the relative value of expectation and venesection? Did it require a greater genius than his to determine such a plain matter? It was clearly because men were appalled at the view of the Natural History of Disease, and the fatal results of inaction that they were induced to look for *remedies*. Moderate bleedings were often tried and failed, when subsequently copious bleedings were attended with manifest good results. We have clear examples of this fact in the case of Cleghorn, army Surgeon and lecturer of anatomy in the Universy of Dublin, in his universally admired and classic treatise on the Diseases of Minorca. He says: "When these Pleurisies first became epidemic their quick Progress and uncommon mortality surprised me greatly. I attempted to cure them by bleeding once or twice a Day if the Complaint were violent, as I had always used to do in Inflammatory Fevers. But the Remissions in the mornings sometimes induced me to omit the operation, and the Cessation of the symptoms, which generally happened about the third day, made me imagine the Danger was over. So that before the Patients were blooded above Twice or three Times, the Exacerbation came on upon the fourth or fifth Days, and defeated all attempts by Bleeding, Blistering, or otherwise to relieve them.

"These unforeseen Events startled me greatly, and led me again to review the whole Progress of the Disease, its Symptoms and Issue. I had observed that some escaped by means of Expectoration and purulent Urine without much assistance from Phlebotomy; and, considering the periodical Revolution of the Fever, the quick Transition of the stitches, from one Part to another, together with the prevailing Color of the Blood as well as that of the Spitting and other Excretions, I was apprehensive that these were what Authors call bilious Pleurisies, which they alledge are exasperated by large Evacuations, particularly Duretius who exclaims with great vehemence against those Physicians who trust principally to Bleeding in the cure of these Diseases without waiting for the natural Evacuations. These motives induced me to use the Lancet with more caution, and to rely chiefly on the speedy Application of Blisters for restraining the Symptoms. But this management proved less successful than the former, and I was convinced in a short time that instead of

too much, too little Blood had been taken away in the beginning, having been sometimes misled by the insidious Intervals of the Disease, at others having trusted too much to the faint Attempts which Nature made to relieve herself by Expectoration and Urine, the latter, after becoming crude on the fourth day as the Delirium advanced, though it had promised favorably on the second or third, the former frequently being checked about that Period of the Disease by the immoderate Heat of the Lungs, rendering the matter viscid, globular and not to be discharged but with the utmost difficulty. I then began to bleed more plentifully, and repeated it so as to take away thirty or forty ounces within the three first days of the Distemper; and endeavoured by bathing the legs and blistering them on the third Day to prevent the fatal symptoms from coming on about the fourth or fifth, giving Nitre at the same Time liberally and Camphire in small Doses to promote the thinner Secretions. This method succeeded well in several cases—Expectoration and Urine being thereby increased."

This treatment, however, did not satisfy this eminent practitioner, and he at last adopted the following, as given in his own words: "If I was called, for Example in the morning, the patient was immediately laid in a horizontal position and bled at the Arm until his pains abated or he began to faint, neither of which commonly happened before sixteen, twenty, or twenty-four ounces were taken away. If the Symptoms continued, I ordered about the same quantity to be taken from the other Arm in the Afternoon without regarding the urine. Expectoration or Appearances of the Blood, next Morning, though there might be a great Alteration for the better, yet if there was the least room to suspect that any Obstruction remained in the Head or Breast, the Bleeding was repeated. And, by carefully weighing the Blood, I found that between forty-eight and fifty-four Ounces were frequently taken away the first four and twenty Hours of my Attendance. This sudden, copious Evacuation commonly produced a cessation of all violent Symptoms, and afforded an Opportunity to give an antiphlogistic Purge the next day. But if the Symptoms did not cease, or if the Pains and difficulty of Breathing returned the day after the Purge had been given, or if there was room to suspect from the Head-ache, Giddiness, Tingling of the Ears and disturbed Rest that the Brain was in danger of being affected, I had again immediate Recourse to Bleeding, taking away at different Times to the amount of twelve, eighteen, or twenty-four Ounces in the space of a day, either by the Lancet or

Cupping glasses or both, as occasion required; by which means the impending Storm was happily averted, and as soon as the Commotions were quelled the Purgative repeated every other Day for three times unless some of the critical Evacuations appeared with such visible good effects as rendered it unnecessary. In this manner I found with Sydenham that Pleurisies of the most fatal Tendency might be happily cured in the space of a few days, and with as much certainty as any Distemper whatever. And it was no less remarkable to observe how quickly the Sick recovered their usual Health and Strength notwithstanding the great loss of Blood they had sustained, while many who had been bled more sparingly, continued in a languid, infirm state for month, without being able to get rid of the Cough and Pains in the Breast."—(Third London Edition, 1768. The Extract is verbatim, the initial letters of the names being printed in Capitals in the old English Text, as it now continues to be in the German.)

Dr. Norcom denies (page 25 of his address) that there has been any change of type in disease. He cannot be a reliable witness in the trial of this important cause as the change occurred before he began to practice. What physician of acute observation, and who has grown gray in medical service, does not know that Dr. Norcom is in error? Who that is conversant with the History of Medicine can deny the fact of this change? Is not an ordinary autumnal Fever less severe in character and of shorter duration than formerly? Where is the respectable syphilographer who will deny that syphilis is a mild disease compared to that of former days? The same may be said of Small-Pox. Is it not well known that even Asiatic Cholera is much more fatal at particular times than at others, as proven by statistics? Does not every respectable author on the subject know that Yellow Fever is sometimes a very benignant, and at other times a very malignant disease? Of the latter, witness the epidemic at Norfolk and Portsmouth, which defied all treatment, which baffled the skill of the illustrious Warren Stone as well as others of the most distinguished physicians of New Orleans, Savannah, Mobile and Charleston, as completely as it did the efforts of the merest tyro of the profession. Does not the habitual endemic of this and of Dr. Norcom's own region assume various types and degrees of violence? Most readily will the practitioners of twenty-five years experience in all our malarial regions answer this question in the affirmative. Do we not see it in some seasons attended with a short cold stage and prompt vigorous

reaction, and in others ushered in with a cold stage of days duration and followed by imperfect reaction? Does it not assume the intermittent, remittent and continued forms? Do we not meet in some malarial seasons more than at others with that high and alarming grade of cerebral congestion, attended with that condition of pulse so apt to mislead and deceive the unwary and inexperienced, and cause the medical attendant perhaps to neglect the golden opportunity for rescuing and saving his patient by bold and decided treatment? That physician who lives in these eastern counties and does not admit this and such as this, will do well to commence and learn over again the alphabet of his Art, or begin it for the first time. Was not the pulse of the pleurisies and pneumonias of former days as described by the great masters of medicine hard, full and resisting? Would they have continued to bleed if the lowering treatment had been attended with such deplorable results as described by Dr. Norcom. Authors who wrote on pneumonia twenty-five or thirty years ago, describe the pulse as either hard or full and resisting and bearing venesection well. Did not Cullen, Sydenham, Bœrhaave, Chomel and Andral, and hosts of other observers and writers in ancient and modern times, have as keen perception of the *results* of treatment as Bennett, Todd and Company? To ask these questions is to answer them. Let Dr. Norcom observe as intelligently and closely and laboriously as these men, and his reputation is made. They were no idlers nor dreamers, but practical, sagacious, acute observers, whose pictures of disease will forever be esteemed as master pieces, for they were drawn from Nature.

Diseases are not units. The same disease undergoes radical changes. Change is written over the pages of creation. It is a part of the sublime system of our Heavenly Father for governing the Universe and disposing of events. The changing seasons, and all that pertains to the heavens above and the earth below proclaim this wisely ordained and universal law of Nature. The science and art of our own profession, as attested by its records, makes no exemption to the law. It teaches the true physician not alone to look at the name of disease, or its anatomical seat, but also at the patient as influenced by age, sex, temperament, diathesis, idiosyncrasy, climate, locality and seasons. He does not bleed all his patients or starve them all, or stimulate them all, but is guided by the actual condition of the patient at the time of prescribing. He varies his treatment according to circumstances, and is not overruled in his judgment by

any exclusive theory or blind adherence to authority. *God, as a general rule, has given every man the capacity to judge for himself as well as to receive ideas from others, and he is an unprofitable servant who does not make use of it.*

The authorities in favor of the change of type theory of disease are almost innumerable and their arguments are unanswerable and overwhelming. It would be a work of supererogation on an occasion like this, and an unprofitable consumption of your valuable time to array before you the hosts of medical philosophers and able and successful practitioners, who bear willing testimony to its truth. Among those who have presented the subject in its clearest and most convincing light, and whose arguments are most conclusive may be named the distinguished Dr. Aitkin, the able author of the Science and Practice of Medicine, in volume first, page one hundred and thirty-nine and following. I will, in addition, cite the testimony of a former practitioner of our own State, now a prominent physician of Baltimore and well known to this Society as one of the able Professors of the Faculty of Medicine in the University of Maryland. I allude to Professor William T. Howard. In a controversy with another eminent medical gentleman formerly of our State also, but now a leading physician of Richmond and one of the most distinguished Professors in the Richmond Medical College—Professor Otis F. Manson. Professor Howard, in an article published several years ago in the North Carolina Medical Journal, remarked as follows: "Since the time of Hippocrates, blood-letting has been regarded by a multitude of physicians as the *remedium magnum* in pneumonia—to be used with proper discrimination and judgment; and during all this lengthened period, observing and reflecting men have practised it largely, moderately, or refrained from it entirely, according to the status of the vital forces in each individual case. Like everything else, however, blood-letting has been used in every age to great excess; and it has often happened that a profuse and preposterous expenditure of the vital fluid has driven some, who witnessed its destructive effects thus practised into the opposite extreme, of abandoning it altogether. Every one knows, that within a few years past, a *great change* has taken place in the treatment of inflammatory diseases, especially in the practice of bleeding; and that, although formerly it was the rule to bleed in such affections, it has now become the exception and is rarely resorted to. This change in practice, admitted on all hands, has been differently accounted for by different observers. We have, first, Professor J. Hughes Bennett and his party contending

that the great revolution in treatment has resulted naturally from the great advances made in modern times in diagnosis and pathology. Secondly, The late Professor Alison and his party contending that the type of disease having changed from a sthenic to an asthenic character, the practice has very properly changed accordingly; and third, Doctor Balfour and his party contending that the change has originated from neither of these circumstances, but has been forced on all alike by the results of a successful empiricism. Although the controversy involves the treatment of *inflammation* in general, yet, practically, it has turned almost entirely on the treatment of pneumonia by blood-letting."

It is beside our purpose to discuss these questions here. "Suffice it to say that with Kennedy we believe that both animal and vegetable life is subject at times to epidemic influences, which at one period *raise* and at another *depress* the standard of health; that pneumonia, like fever, alters its type at certain times, and that no single plan of treatment can, therefore, possibly meet the ever varying shades of disease, pneumonia among the rest; or, as Watson has expressed it, we are fully persuaded both by our own observation and the records of medicine that there are waves of time through which the sthenic and asthenic characters of disease prevail in succession; and that we are at present living amid one of its adynamic phases."—(N. C. Medical Journal, March 1860.

Again: At the same time Professor Howard continues, as follows, after comparing the results of twenty-four cases of pneumonia treated by M. Grisolle, in eleven of which bleeding was *not* employed, and in thirteen of the number it *was* used: "It seems to me that no one can compare these two series of cases together without admitting the efficacy of blood-letting on those in which it was employed. Having so often witnessed in suitable cases the influence of bleeding in reducing the force and frequency of the pulse, in diminishing the heat of the skin and rendering it moist, relieving delirium, calming restlessness, relieving head ache, lessening dyspnœa, and removing or greatly moderating the pain in pneumonia, for us to doubt its utility would be wholly to discredit the evidence of our own senses."

Dr. Norcom publishes his Reform doctrines *after* and not *before* the Reformation. Why denounce with such noisy clamor the antiphlogistic treatment, and especially blood-letting, when it is so sparingly used, and I may say timidly employed by the great mass of the profession now, and has been almost abandoned by a great majority of physicians?

As evidence of this change and of a correct appreciation of this reactive stage of disease, I may refer to its general recognition by those who commenced their career years before Dr. Norcom commenced his. Well do I remember my early recognition of this important medical truth and of my corresponding shape of treatment. Let us refer to high authority in the profession of this and of other States in corroboration of this statement.

Professor Manson, already referred to, and recognized by this Society as one of the ablest and most accomplished physicians of the whole country, makes the following statements in a communication to the Stethoscope and Virginia Medical Gazette of February, 1851: "Called to a patient in the exacerbations of remittent fever, venesection is practised in every case where the *pulse* will justify it, but it is *rarely* that this is called for. In fact the *general experience of myself* and confreres is *adverse* to the *use* of the *lancet* in this affection. The pulse, though often full and apparently tense, is generally *compressible*. Local bleeding by cups and leeches will usually be sufficient, and if there is tenderness on abdominal pressure or other symptoms of visceral complication these should be freely applied. Should symptoms of cerebral irritation be present, a copious flow of blood will be obtained by cups to the mastoidal regions."

In an article on malarial pneumonia, published in our Transactions for the year 1857, and written for the Society by the same careful observer, he says: that "the pulse which had been very frequent and contracted in the chill becomes expanded, acquires force, and sometimes, though *rarely*, becomes full or tense. The term *compressible* applies to the usual condition of pulse and the idea entertained on its careful examination is that the heart is acting with only a seeming force and not with real vigor." When speaking of the treatment, he remarks as follows: "If the pulse is hard, full or tense, as it is in rare and exceptional cases, or if the patient is robust or previously healthy and possessing ordinary vigor, and the pain or dyspnœa is very intense and the character of the pulse or other symptoms do not decidedly contraindicate its employment, then a moderate quantity of blood may be taken from the arm. In this disease general blood-letting should be employed with a view *only* to *moderate* and not with an expectation to cut short the disease; nor should it be employed except in the instances referred to. In cases where this is not followed by marked relief, and in those where venesection is inadmissible, the local abstraction of blood by cups or leeches should be resorted to

and may be used as freely as considerations of safety will permit. The time at which bleeding by any mode should be practised, is that period when the exacerbation has reached its acme, which is almost invariably in the afternoon or evening."

These and other extracts that might be given from other authors show how careful blood-letting was used twenty years ago, when but few, if any of us, who were then coming upon the stage of action had ever heard of the doctrines of Bennett, Todd & Co.

As to the employment of the expectant treatment, and the use of stimulants in malarial fevers, and their complications —the endemic affections of Dr. Norcom's own immediate region—I feel authorized to warn the practitioner against the habitual application of such practice. Except as a temporary means of support after these fevers have been broken up, or as an auxiliary in sustaining the vital forces in some cases of neglected treatment, while other efforts are being made to induce the action upon the system of more curative remedies, I do not believe there can be found a single experienced and judicious practitioner who will uphold the general employment of stimulants, even in those cases in which, from the very outset, there is prostration of the vital powers. If a physician gives brandy in the cold stage of congestive fever, it will end fatally in a large majority of cases; and, as to alimentation in the cold or hot stage, that is but little less than preposterous. Rather do I agree with the lamented Dr. Drake, so justly regarded in his day as the Nestor of the profession in the Northwestern States. Guided not only by his own observation, but by that of nearly every physician of note from the Great Lakes to the Gulf of Mexico, we have his high authority against the use of stimulants in these instances. In his celebrated work on the "Diseases of the Interior Valley of North America," second series, he remarks, page 86, in treating of "internal stimulents" in "malignant Intermittent Fevers," that "almost every kind of excitant and narcotico-stimulant has been administered internally in the cold stage. In this stage of the paroxysm of malignant intermittent fever, wine, brandy, whisky, and other alcoholic drinks have been liberally given; but the results have not been such as to commend them. They probably act upon the brain unfavorably."

I have seen patients in the protracted cold stage of remittent fever, with clay-cold skin and feeble pulse, become colder and colder under the influence of stimulants. When *reaction* followed their use I have seen them die in apoplectic convul-

sions. Were we to be guided by any *a priori* theory, deduced from physiology, in our treatment of malarial fever, we should certainly expect stimulants to be useful in those cases where the vital powers were prostrate and the pulse flagging; but every sensible practitioner is perfectly aware that they are either generally *inert* or *hazardous*. If the young men coming into practice in the malarious regions of North Carolina, depend upon stimulants and alimentation in the treatment of Periodical Fevers, they will soon be compelled, like the followers of Jack o' Lantern, to find themselves in a bog, and their patients in premature graves.

Other vulnerable points in Dr. Norcom's Address consist in his omission to make any distinction in his views as to the sthenic and asthenic states in inflammation. We look in vain for an exposition of his sentiments as to the treatment of many of our every-day acute diseases. How would he treat cholera infantum, comatose remittent fever, or Asiatic cholera? Would he bring to bear his batteries of food and brandy? How long would his patients live under such treatment? How would he treat acute gastritis, entiritis, nephritis, or cystitis? With food and brandy? Would not the grave soon claim and receive them under such management? How would he treat iritis or retinitis? With food and brandy? How long would his patient be able to grope his way out of perpetual darkness? Why should Dr. Norcom, at this late day, declaim against *wholesale* blood-letting and the *abuse* of calomel and antimony, as such treatment had been abandoned before he graduated by every correct medical thinker and accurate observer? Let him take heed, clever man as he is, that he does not allow himself to be ranked among that too numerous class of the present day, who set up men of straw for the glory of knocking them down. Is he aware that his onslaughts upon anti-plogistic remedies contain unmerited strictures upon the practice of his own honored and lamented father, Dr. James Norcom? He, too, resided in Edenton, in this State, was a gentleman of profound erudition and high accomplishments, and one of the most distinguished physicians in the whole country, as he certainly was one of the most successful practitioners. I cherish a peculiar pride and gratification in the belief that at, and for many years prior to, his death, he was at the head of the profession in North Carolina. What were *his* views of disease before the rolling in upon us of the "adynamic waves of the change of type?" Listen to what he says in some "Observations on the Influenza, as it appeared at Edenton, N. C.," in a letter to Dr. Rush, of Philadelphia,

published in the Philadelphia Medical Museum in 1808, volume five, page 118. "Since I returned to North Carolina I have been engaged in business with Dr. Sawyer, and have had a respectable practice, and enjoyed a greater degree of success than I ever before experienced. In the Influenza, which prevailed here from the last of September until the beginning of the year, I hardly lost a patient. The disease, in its form and character, resembled very nearly that which you have described in your Medical Inquiries. It was universally inflammatory and uniformly yielded to depletion.

"There appeared to me to be in the course of the season a greater proportion of cases with pulmonary determination than is common, and some of the most inflammatory I ever saw. One patient I bled seven times largely in forty-eight hours, and another three times in eight hours. The event in both cases was favorable. It was my happy lot to be instrumental in saving the life of an amiable woman through a series of relapses by, I am sure, not less than fifty bleedings. Bleeding, I found, in all cases of violence, an antidote to the disease, and in milder cases less direct and less active evacuants never failed to cure.

"The most fatal consequences of the fever, when it was not properly treated or speedily cured, were dropsy and consumption. Few of these have fallen to my share for a reason I have assigned already. In the dropsies that have occurred within my observation, my practice has been happy. The lancet, purging, nitre and sage tea, cream of tartar and mercury, have been my remedies. And in consumption I have cured and relieved more patients than I ever saw cured, according to the number I have attended. My remedies have been the lancet, opium, camphor, horehound and salivation." Thus do we introduce against Dr. Norcom, and in favor of the change of type theory, not alone the conclusive and overpowering testimony of his own dear father, but we could go on and pile authority upon authority, equally strong and convincing, in support of the positions we have taken in this paper. We have introduced our witnesses, not to advocate the propriety of their practice at this day—for, were they now in practice, they would make it correspond to the indications of the prevailing character of the disease—but our main object is to show how idle are the fears of those who condemn moderate and judicious venesection.

In relation to the general character of *Inflammation*, Dr. Norcom seems to differ in his views with those of standard authors and the ablest writers. Assuming that it is

unnecessary to diminish the amount of blood in an inflamed tissue, he asks: "Can general blood-letting diminish the amount of blood in an inflamed part?" In inflammatory action of the contents of the three great cavities of the head, chest and abdomen, it is found, according to high authority, that blood-letting not only diminishes the quantity of blood circulating in the vessels, but at the same time calms the turbulent action of the heart and arteries. It is admitted that in *external* inflammation, so liable to be diffused, the lancet should be used with great caution, lest by too free a detraction of blood the constitutional symptoms already existing may be converted into fever of a different type or character. Blood-letting in internal inflammations not only diminishes the mass of circulating fluids, but is advantageous in the inflammation of external parts by drawing blood from the larger vessels going more immediately to, or returning from, these parts. It is here that the salutary influence of venesection is sure, and does not act, as Dr. Norcom insists, by materially weakening the force of the heart's action. A true interpreter of vital phenomena, a judicious observer, a stranger to the exactions of mere party systems, and unseduced by the subtleties of the schools, clearly understands that, when the excitability of the sanguineous system is carried to a very high degree, blood-letting not only diminishes the amount of blood, but in other respects proves highly beneficial. His assertion that during inflammation the vessels lose their contractile power, and are distended with blood, and that stasis, owing to adhesiveness of the corpuscles, occurs, and is followed by exudation, will not be accepted. The vessels do not lose their contractile power from this cause, but during inflammation, the blood ceases to undergo its changes to the proper extent from arterial into venous, and the functions of nutrition and secretion are to a very great extent suspended. On the inner surface of the walls of the dilated vessels colorless corpuscles are said to collect sometimes; but there are no new formations called forth by this change—they already exist in the blood, and when the velocity of the current is materially increased they mingle with the red corpuscles, and are carried along with them. It is not established that stasis is followed by exudation, for the reason that new canals are formed by globules of blood bursting through the sides of a vessel, and forcing a passage for themselves through the cellular texture into another vessel. A considerable number of new canals are sometimes formed by this process of nature through which the blood continues to

circulate. It is surely not rational or philosophic to apply to these varied phenomena any other hypothesis than the one of increased or diminished action. It appears also incorrect to describe vessels which performed their functions efficiently during health, as affected with *direct* debility because they are unable to perform double their usual labor with equal efficiency in disease. It cannot be denied that, unless under peculiar circumstances—forming exceptions to the general rule—the action of the vessels is at first greatly and powerfully increased; and it is only when they become clogged and over-distended by an excess of blood, and that, too, thinner and more fluid than that which they contain in health, which being no longer able to contract, become passive; but it is not occasioned in consequence of injury to the *vaso motor* nerves of the part as, he contends. Adhesiveness of the corpuscles cannot, therefore, be correctly admitted as the cause of the distension of the vessels—thereby causing debility—since we only perceive this to occur as a *secondary* effect. Weak and relaxed vessels are themselves susceptible of increased action, and often in a much greater degree than vessels in an opposite state; for it is well known that constitutions in which the fibre is lax and delicate are generally characterized by a much higher degree of mobility and irritability, and are much more predisposed to inflammation than constitutions endowed with a more firm and rigid texture of the solids. While delicate and sensitive vessels are easily roused into excessive action, they are less able to sustain it, and are, therefore, more readily overcome by the increased flow of blood, and more quickly affected with inflammation.

Nor will Dr. Norcom, in the assumption that there is no direct anastomosis between the surface vessels and the inflamed part, and therefore that cupping in inflammation is not profitable, secure the concurrence of his professional brethren. Let us see how this is. When a stimulus is applied to a living part, the first effect produced is an excitement of the sensibility of the part and a consequent degree of pain. The necessary result of this morbid excitement of the sensibility and contractility of the vessels is a more rapid flow of blood to the part, which acting as a stimulant tends still more to quicken the circulation. There is, consequently, a considerable influx of blood in all the vessels, capillaries and veins, to the amount of double the usual quantity. This is precisely the action which takes place in inflammations—the surface vessels in most cases anastomosing with those of the inflamed part. His opposition, therefore, to cupping

cannot be sustained, and is founded upon an anatomical error, in part, because, while it is in some parts of the surface true, that the vessels from which the blood is withdrawn have no anatomical connexion with those inflamed beneath, it is equally untrue as respects other parts. In all these cases of cupping, however, let it not be forgotten, whether there is or is not any direct anastomosis, that there is a *sympathy* existing through the great organic nervous centres, between the outer and inner surface or organ, by which any impression made upon the former is communicated to the latter. Herein consists a conservative law of useful results that the experience of every enlightened practitioner must have observed. It is recognized in the fact that, amid all the fluctuations of general blood-letting, the local abstraction by leeching and cupping has maintained its ground with more consistent uniformity. Local bleeding is an invaluable remedy under various circumstances of disease. When there is not much general excitement, but troublesome local congestion or inflammation; in other cases when general depletion has reduced the fullness of the pulse and moving forces of the blood with still a co-existent local inflammation; and again, where the reasons for and against the use of the lancet are so equal that it is difficult to determine as to its use, as in many cases of fever attended with inflammations; in these and similar circumstances we can often use cupping with the happiest results, even restoring health and saving life thereby in certain cases. No one conversant with the effects of both general and local bleeding will deny, that a certain quantity of blood taken from an inflamed part or near by, has decidedly more effect on the disease than a like quantity abstracted elsewhere.

CALOMEL.

Not more unsparing and persistent have been the attacks of Todd, Bennett & Co., upon venesection than are their denunciations of the various forms of Mercury. If calomel deserves one-thousandth part of the anathemas which these and other extremists have so long hurled against its use, surely it should long since have been expelled from the Materia Medica. After all its ups and downs in professional appreciation, the "much abused Mercury" still maintains its stronghold upon the profession. True, it has been more sparingly used in the Southern States, within the last twenty-five or thirty years, and for the following reasons: The prevailing endemic and epidemic diseases were, before and since that time, of malarial origin, yet the powers of quinine

were not so generally known as now. In the simple intermittents with a stage of complete apyrexia and in the benign forms of remittent fever, in which the remissions were decidedly manifest, quinine in small doses was administered by physicians generally; but in the violent cases in which the remissions were not evident, and in which symptoms of cerebral or gastro-enteric irritation, congestion, and inflammation, were either singly or unitedly present—in the large majority of cases quinine, except by a very few physicians, was usually withheld. In these cases, mercury was almost universally given. It is well known that the patient was usually pronounced "safe" as soon as ptyalism in the slightest degree presented itself. It was objected to the mercurial treatment that it was too slow and uncertain in the rapid and malignant cases, and was attended with the injurious consequences often of ptyalism, nevertheless, the mercurial treatment proved highly successful in the hands of experienced and judicious practitioners. The malignant cases which defied its powers were not so numerous as might be supposed, while the evil consequences of mercurialization were in many cases exaggerated, the majority of cases soon recovering from its effects entirely. Even after the introduction of the use of large doses of quinine, calomel continued to be necessary in completing the cure, and is still regarded as a most valuable adjuvant.

In pneumonia calomel is regarded as a most excellent remedy in skilful hands. In all my practice I can, with truth, say that I have seen but few cases of pneumonia die where the patient was clearly and timely brought under its influence. I have also seen its great beneficial influence in Dysentery, Diarrhœa, Cholera Infantum, and many others of our endemic diseases. The best, the ablest, the most successful practitioners of this and every other portion of the South have always regarded mercury as a useful and most important remedy in our Southern diseases generally. In Syphilis, though for a time it fell into some disrepute under the opposition of prominent men, yet, it still holds its place in the therapeutics of nearly every modern Syphylographer.

Even the French, who have the greatest prejudices against it of any other people, have been compelled to return to its use in true chancre. Ricord still recommends it as the principal remedy. It is true that the use of mercury, even in moderate quantities, is sometimes attended with unpleasant and injurious consequences. It is true that the habit which too many of our farmers and others still pursue of

keeping calomel in their houses by the pound, and of dealing it out to their families and themselves profusely, even sometimes by the teaspoonful, and for almost any and every complaint, is highly injurious and amounts to a deplorable evil; for, by the disintegration and disorganization of the blood frequently induced by such mal-practice, the constitutions of their children are often undermined and ruined, and other bad consequences entailed. But this is the *abuse* and not the *proper use* of this potent remedy. The same can be said of nearly every other active agent in the Materia Medica. Opium, Arsenic, Strychnine, Iodine, Chloroform, &c., are sometimes not only injurious but fatal in their effects in the best of hands. But we are unable to discard them until better agents are provided. Of one fact we may be fully assured, and that is, neither food or whiskey can ever supply the place of calomel or the other remedies in a larger majority of cases of disease we are called upon to treat. When the *soi-distant* Modern Revolutionists in Medicine supply us with *better* remedies than those we have we will *discard* them, and *not until then*. While I am ready with Dr. Norcom to concede it as "certain that improvements in pathology must follow in the wake of an advancing physiology," yet, in the face of all the discoveries and improvements that have been made in these departments, I utterly deny that the treatment of Acute Internal Inflammations can be based upon our present knowledge of them. Decry empiricism as we may, yet, the knowledge of the great value of thereapeutic agents is chiefly due to experience and observation. Vaccination, quinine, opium, arsenic, iodine, mercury and a host of other remedies—*the best we have indeed*—were never, and could never have been, indicated or dreamed of by physiologists or pathologists. And they will continue to be employed by all endowed with common sense until greater experience and larger observation have given us better. With all our boasted knowledge of Inflammation, yet, after all, how little do we really know of its *essential nature?* Do the microscopic phenomena, as observed in the web of the frog's foot, tell you anything of the *specific* nature of the *varieties* of inflammation, of the *causes* or *cure?* How idle then to attempt to base the art of medicine upon Physiology or Pathological Anatomy! They are simply accessories—aids—but not the corner stones of Therapeutics. Dispute as we will about the *modus operandi* of medicines, yet, quinine still as *certainly* annihilates malarial diseases, opium relieves *pain* and produces *sleep*, and mercury cures *inflammation* and *syphilis*. The art of medicine is based

upon the accumulated facts and observations of ages. Its rules and principles are simply derived from these sources. Call it empiricism, or what you will, it is the nearest approach to Truth bequeathed to us and can never be superseded by the Cook and Distiller of the theory of Alimentation and Stimulation. It is as irrational to declaim against the use of bleeding, mercury and tartar emetic because they are sometimes injudiciously employed, as it is to denounce food and wine and whiskey, because their *abuse* leads to gout, intemperance, delirium tremens, paralysis and death.

The high claims set up by the friends of mercury, as to its beneficial effects in subduing inflammation and other diseases, and its adaptation especially to malarial fevers and affections of the liver, are disputed by its opponents. They deny it has any cholagogue action, most of them, and will not admit the theory of its absorption into the system. Todd, Bennett & Co. are noted for their opposition to calomel in these relations, and the boldness of their denial of its reputed virtues in inflammatory diseases and in acting upon the liver is very injurious to the cause of medical truth, especially in the case of many young and inexperienced members of the profession. Committees of prominent European medical men have been appointed to make special investigations of the action of these mercurial preparations upon the human system, and to enquire into the important question of their absorption. After elaborate enquiries and protracted labors directed to a knowledge of the action of mercury upon dogs and other inferior animals, and as far as possible upon man, embracing the feature of absorption, these gentlemen reported very unfavorably as to its action and value. It is even denied that it is absorbed into the human system, and the denial is willingly caught up by the opponents of calomel, and they are seeking to get up a greater hue and cry than ever before against it. Their experiments upon inferior animals are very fine illustrations of their devotion to physiology, and their fine spun theory as to the impossibility of introducing into the system by absorption, or any other possible way, globules or particles, however small or minutely reduced, of any preparation of mercury, reads well enough on paper, but unfortunately for their reasoning and conclusions, are overthrown by innumerable and overwhelming facts to the contrary. Let us apply the test of medical logic and of scientific induction to this question, and proceed to examine it fairly and clearly.

I have often seen under the operation of calomel almost apparently pure bile discharged by stool, and often have I

seen bile discharged by vomiting in large quantities during the purgative action of the same mercurial; and how any one, conversant with this tendency, undisputed until recently, of calomel to increase the secretion of bile, I am utterly at a loss to conceive. How, if it is not absorbed, can you account for its action on the gums, or the dissolution of plastic deposits, its removal of serous effusions, its power of rapidly healing chancre, its unquestioned ability to cure iritis? How can we otherwise account for salivation produced by mercury introduced into the system by inunction or hypodermic injection? Let us summon to the stand as a witness of great reliability and experience the distinguished Headland, than whom there is no higher authority in our profession. In his admirable work "On the Action of Medicines on the System," this great light states that "*Mercury is absorbed into the blood and particularly tends to the liver, bowels, salivary glands and skin.*" He classes it among the "true cholagogues." He says that "Mercurials increase more or less all the secretions, and even if we had no direct proof of their action on the liver we might almost have affirmed that they especially increase the secretion of bile from the obvious way in which bilious symptoms yield to their action. But *we have direct proof of this.* M. Bucklein has made some careful experiments on a dog. Having given it Mercury, he cut down upon the hepatic duct and collected the secretion and subsequently analyzed it. He found that the bile was increased and that mercury was found in it."—[Page 297.] Again he says: "Mercury, sulphur and iodine have been chemically detected in the perspiration. It has happened when a course of mercury has followed the administration of sulphur that parts of the skin have turned black from the formation of sulphuret of mercury."—[Page 301.] He also says that "mercury has been detected in the urine."—[Page 306.]

Let us now consult another learned and high authority, Pereira. He states, in his great work on Materia Medica and Therapeutics—[American Edition, 1852, volume 1, page 773]—that, "By the external or internal use of Mercury this metal becomes *absorbed*, and is subsequently either *deposited* in some of the *solids of the body*, or *thrown out* of the system by some of the *excretories*. The accuracy of the statement is proven by the following facts: 1st. Mercury has been detected in the blood by Zeller, Buckner, Schubarth, Colson and Dieterich. It appears to be in such intimate combination with the vital fluid that it cannot be recognized by the ordinary tests. *Destructive distillation* is in most

cases necessary for its detection. 2nd. Mercury has been found in the secretions, viz: in the perspiration, in the saliva, in the gastro-intestinal secretion, the bile, the urine, and in the fluid of ulcers. 3rd. Mercury has been found in the organic solids, viz: in the bones, brain, synovial capsules, pleura, humours of the eye, cellular tissue, lungs, &c. In what part of the system reduction is effected has not been made out."—[Volume 1, pp. 773–74.]

"The secretion of bile (by mercury) is promoted."—[Page 774.]

Who has not seen in the old treatment of Remittent Fevers, that just as soon as the gums were touched by mercury the liver poured out large quantities of blackish, green, viscid bile, which invariably denoted a favorable solution of the disease? But let us go on with the authorities. Our own illustrious American Professor, Wood, remarks as follows, in his able work on Therapeutics and Pharmacology —[2nd vol., page 243]—"That mercury is absorbed is proved by the following facts: When rubbed upon the skin it in parts appears. After administration it has been detected by chemica ltests in the blood, saliva, perspiration, bile and urine, and is said to have been found in a metallic state in the brain, bones, cellular tissue, lungs, &c. Infants affected with syphilis are asserted to be treated effectually by the administration of mercurials to the nurse, &c. The hepatic secretion is often energetically stimulated, especially when the medicine is administered internally. There is no cholagogue which approaches in efficiency some of the preparations of mercury. A true cholera morbus, with copious vomiting and purging of bile, is not unfrequently induced by a large dose of calomel."

Stille, in his Therapeutics and Materia Medica (Vol. 2, p. 731), cites numerous and convincing proofs of the absorption of Mercury. After mentioning the experiments of Schobarth and Zeller, before mentioned, he says: "Oesterlen found *minute globules of Mercury* in the *pancreas, liver, spleen, lungs, heart, mesenteric glands, kidneys*, &c., and also in the *urine, bile, milk* and *saliva*," (p. 782). "Among the proofs of mercurial absorption by man, the following may be selected: In 1810 Brickmann published an account of a lady who, a year after being salivated, having become heated by violent dancing, *mercurial stains appeared* on her breast, and *metallic mercury* was found in her *linen*. In 1813 Jourda collected a quantity of mercury from the *urine* of a *syphilitic patient* who was *taking* this remedy." *Stille* quotes other authorities to similar facts, and treats at length, fully and clearly, of the effects

of medicinal doses of mercurial remedies, their action—similar to that given by others—producing liquid and billious discharges, &c." I might go on and cite additional authorities, numerous and high, in corroboration of the observations, experiments and statements of those I have given; but can any honest and unprejudiced man require further proof of the position that mercury is absorbed into the blood, and is a cholagogue?

The following additional quotations from Headland are well worthy of introduction here: "As hematic medicines mercurials have a double action. They counteract inflammation in general, and the poison of syphilis in particular (p. 325). On account of the durable and effectual nature of its action, mercury is of great use in preventing the process of *effusion*, and in causing the *absorption of effused products*. It is thus employed in *pleurisy*, and in other *membraneous inflammations*. Next to these it is most useful in inflammations of the *liver* and *brain*. It is inferior to antimony in fevers and rapid inflammations, because slower in operation, and without any direct action on the nervous system. In cases of primary syphilis mercury is *by far* the best medicine with which we are acquainted. It should be used in all cases, except where there is deep-rooted scrofula or marked debility, or a sloughing and irregular condition of the primary sore. It should always be given in Iritis"

"Mercury, being unnatural to the blood, passes at length out of the system through the glands, and acts as an eliminative. Like antimony, it tends to increase all the secretions in the body. But whereas, antimony acts especially on the secretions of the skin and pulmonary membranes, Mercury *tends particularly* to excite the *functions of the liver* and *bowels*, being *cathartic* and *cholagogue*."

On another occasion Headland writes as follows: "Another remedy, of a different kind, has been used in all the diseases in which quinine is admissible, proving in some cases superior, and in other instances second only to it in its beneficial action. This is mercury; and in remittent and yellow fever; of the first importance in dysentery; employed by Dr. Baillie in ague, and pronounced by him to be superior in some cases even to quinia. In small doses it is frequently of use in cases of debility and scrofula. And mercury is a cholagogue, i. e., an agent which is known to have the effect of promoting the secretory function of the liver. Thus we may conceive that mercury, not given in excess, or to salivation, may operate in a different way to produce the same effect as quinine.

If the connection between tonics and the bile were actually established, then we should be enabled to explain a matter which otherwise would seem difficult to understand—how it is that small doses of mercury may sometimes act as tonics, though we know that the ultimate action of the medicine, like that of other catalytics, is to deterioate the blood. Even in scrofulous and enfeebled cases small doses of blue pills or calomel are often signally useful, and not prejudicial, as is sometimes stated by those who confound their application with that of mercury, given in salivating doses. Under such a course, when judiciously enforced, we may see the dilated pupil contract to its normal size, and the pale, enervated countenance become rosy and lively, and feel the weak and compressible pulse to become hard and firm. Perhaps mercury in such a case may be indirectly tonic, by restoring to the blood the natural tonic principle of the bile."

The reactions in the history of this valuable but much abused remedy of calomel, the fluctuations of professional appreciation of its importance and value, have been greater than attach to any other remedial agent of the whole profession. But when we remember that our best remedies are those which have been most abused, shall we reject the *good* which this powerful agent is capable of producing, because its *abuse* has been so great? To yield to the unfounded prejudices and noisy clamor against the use of calomel, which are becoming even traditional, that to use it in efficient doses places a practitioner in the ranks of old fogyism, and behind the rapid strides of medical science, is neither manly, philosophical, nor scientific. That physician is wanting in the stamina of real manhood, and in the sustaining power of true professional devotion, who allows any storms of surrounding circumstances, or any prejudice or tradition, however honored by time or authority, to stand between himself and a judicious trial of legitimate means, whether of ancient origin or modern growth, in combatting disease and saving life. I admit that much prudence and discrimination should be exercised in the administration of mercurials. I confess that I have often seen them used to such an excess in the bowel complaints of children, and other diseases of infancy and adult age, as to produce that deterioration of the system, that disintegration and disorganization of the blood, that entailed dropsy, consumption, and other protracted and wasting affections, which either greatly injured the constitution or ended in death. Such ignorance and mal-practice in the use of this effective

weapon, while inexcusable, have contributed greatly to that discrepancy in the results of its administration which has made the calomel treatment objectionable to so many good men. But when we learn, as learn we must, more of its mode of action, as well as of its remarkable capabilities and most valuable adaptations in subduing many of the most fatal diseases of the human system, it is reasonable to suppose that less ignorance will guide, and less prejudice and danger attend, its use. The authentic accounts from high authorities of the happy effects of large doses of a scruple and upwards of calomel in cholera morbus, epidemic dysentery, cholera, &c., are only equalled in striking import by the well-attested records of the cure of that terrible enemy of infantile life, membraneous croup, by similar doses, during the last twenty years, in the practice of most distinguished physicians of New York city and elsewhere. The introduction of the calomel treatment in croup has been credited to Dr. Bay, of Albany, New York ; but Dr. Hamilton, in his work on mercury, published early in the present century, regards it simply as the American treatment, and says it spread from America to England. This celebrated author, who has written more strongly against the general use of calomel than almost any writer prior to those Modern Revolutionists, Todd, Bennett & Co., extolled its action in large doses nevertheless in genuine croup. He says that "no relief whatever has been afforded by that medicine (calomel), unles copious, dark-green colored stools, like boiled spinach, have been discharged, and that it requires large and repeated doses of the medicine to produce that effect. For example, to a child seven years old, one hundred and thirty-three grains were given within sixty hours." He says, moreover, that "in the only cases in which this medicine has failed under the author's direction (being in the proportion of *four* out of *fifty*), no evacuation through the bowels could be produced." "It is extremely difficult," remarks Professor Hamilton, "to explain, in the first place, the safety with which a hundred and thirty-three grains of calomel could be given in this climate (England) within sixty hours to a child of seven years. Secondly, the relief which has invariably followed the discharge of the dark-green colored evacuations."

Nowhere have I known or seen recorded such remarkable success in the treatment of croup, nor the necessity so strongly enforced of a pre-requisite to success of a continuance of the treatment until relief follows, or until there appears those free evacuations of the stools just described.

I am told that scruple doses, and larger, are common in New York among the best practitioners, who treat croup successfully, although no published allusions are made to such treatment, owing to the prejudice against large doses of calomel, both within and without the profession.

The administration of heroic doses of this mineral under suitable cases and stages of disease received a revival in the example and endorsement of the illustrious James Johnson. He contracted a violent attack of dysentery while hunting on the banks of the Ganges. His medical attendants put him upon the usual treatment of small doses of calomel, combined with opium, together with mercurial inunction. This was continued for two days, but he constantly grew worse and worse. He says, in his own graphic account, that at this stage: "The Surgeon endeavored to cheer me, with the hope of ptyalism, which, he assured me would alleviate my sufferings. I then had no local experience in the complaint myself. As the night advanced, all the symptoms became aggravated, and I was convinced that a fatal termination must ensue unless a speedy relief could be procured. I had no other hope but on ptyalism, for my medical friend held out no other prospect. I sent for my assistant, and desired him to give me a scruple of calomel, which I instantly swallowed, and found that it produced no additional uneasiness; on the contrary, I fancied it rather lulled the tormina. But my sufferings were great—my debility was increasing rapidly, and I quite despaired of recovery! Indeed I looked forward with impatience to a final release! At four o'clock in the morning I repeated the dose of calomel, and at eight o'clock (or between sixty and seventy hours from the attack) I fell, for the first time, into a sound and refreshing sleep, which lasted till near midnight, when I awoke. It was some minutes before I could bring myself to a perfect recollection of my situation prior to this repose; but I feared it was still a dream, for I felt no pain whatever! My skin was covered with a warm moisture, and I lay for some considerable time without moving a voluntary muscle, doubtful whether my feelings and senses did not deceive me. I now felt an uneasiness in my bowels and a call to stool. Alas, thought I, my miseries are not yet over. I wrapped myself up to prevent a chill, and was most agreeably surprised to find, that with little or no griping, I passed a copious, feculant billious stool, succeeded by such agreeable sensations—acquisition of strength, and elevation of spirits—that I ejaculated aloud the most sincere and heartfelt tribute of gratitude to Heaven for my deliverance."

In addition to the slower and alterative action of calomel in minute doses, there seems to be a growing belief that when given in larger and purgative doses it is attended with *very decided sedative powers.* Dr. Leaming and others claim for it distinct sedative virtues, and the power to produce a profound and favorable impression through the sympathetic system of nerves upon those violent forms of disease common to Southern localities. But whether it acts mostly through absorption into the blood, or in no small degree, according to the theory of the reflex action enunciated by Marshall Hall, and which, through the investigations of Brown Sequard and others, have solved many intricate physiological and pathological problems, as many are assured, it cannot be denied, that, whether given in smaller or larger doses, as existing indications and changing circumstances should always decide, its use is indispensable in the treatment of a large number of the prevailing congestions, inflammations and other affections of this latitude.

Finally, in relation to the modern treatment of fever and inflammation, I have yet to learn of a single advocate of the depletory system who denies the influence of the conservative powers of nature in disease, or rejects the judicious administration of food and brandy. No considerate physician has ever denied that, when high fevers have been removed and inflammatory action subdued and other indications are favorable to alimentation, or when the system is much reduced either by acute affections, or slow, lingering diseases, suitable food and stimulation is not only proper but necessary. But that food and stimulants, except in limited quantities, are contra-indicated under opposite states and conditions, is a fact sustained by the general voice of the profession in this country and in Europe. The sensible physician never opposes, but always seeks, the aid of nature; the expectant system has its comparative value, and its remedies are sometimes appropriate and sufficient; and alimentation and stimulation have their subordinate and proper positions in the catalogue of remedial agents; but *singly,* or in *any combination,* such influences and agents, when brought to bear upon concentrated malaria, or directed against the higher grade of our congestive fevers and inflammations, are nothing more than mere "*meditations upon death.*" The disciples of a judicious antiphlogistic treatment are among the foremost in recognition of the influences named; they are ever ready and anxious to consult with nature, and to admit its full power in

the class of self-limited diseases, and that under this self-limitation numerous cases will progress to recovery without medication. But all this is no evidence that, even in self-limited diseases, judicious treatment is not indicated—not alone to cut short, modify, and control disease, but also to prevent unnecessary complications, and sometimes to save life.

If the medical profession has no higher functions to perform than a mere skilful manipulation of the Liquor Distillery, as some have doubtless concluded who have read Dr. Norcom's address, it is a mere mockery to the community, and our science, instead of being humane and noble, as we have claimed it to be, is worthy of no higher devotion than such as the cook and distiller can bestow. If the views we have honestly sought to combat are correct, better, much better, would it be to disorganize all our medical organizations, break up our Medical Schools and Universities, and burn up our Medical Journals and Books. And then, in penitential sorrow for the offences of our past professional devotion, to come forward, in a spirit of humiliation and mortification, to admit, that the advancement of medicine and the reputed glories of our profession are eclipsed by the triumphs of the kitchen and the achievements of the distilleries and drinking saloons.

While, with good feelings towards Dr. Norcom, I am pleased to admire the ingenuity and ability of his Address, yet, I am induced to offer these opposing views and arguments from a sincere conviction that his doctrines are not in accordance with the teachings of medical truth, and of true medical progress; that they tend to throw discredit upon this Society, and upon the experienced practitioners of the State; that their tendencies are to bring the art and science of medicine into contempt with the ignorant and vulgar; and are pernicious in their influences upon the minds of the younger men of the profession.

He only is a true medical philosopher who alike interprets wisely the instructions of Nature and the indications of disease, and then pursues with patience and firmness the pathway illumined by their radiant beams. Let him shun equally the dogmas of those extremists in medicine whose enthusiasm or prejudices are so liable to lead them from the true paths of legitimate practice. Pursuing the even tenor of his way, seeking only for truth, let him reject no doctrine because it is old, nor adopt any theory because it is arrayed in the captivating charms of novelty. Such a course may be slow to secure public attention and patronage, and may not

strike the admiration of the fickle multitude; but in the end it will secure that kind of *permanent* success which no sneaking detraction or envenomed envy can shake, and which the superficial and wily medical demagogue never attains. His name will be enrolled high upon the list of noble and faithful physicians, and will go down as a rich and proud inheritance to his children and family. Such a conservative course, always to be united surely with personal integrity and honor, may not satisfy the ambitious aims of those who are not content with the *gradual* advancement of themselves, and the sure progress of a well-settled science. It may not serve to calm the restlessness of those who are ever on the alert, either to weave new theories themselves, or to adopt the new-fangled doctrines of others—sometimes for lack of judgment, but too often from a love of gain and notoriety. But, founded upon the rock of principle rather than expediency, he who takes this rough but alluring pathway, and pursues it with honesty and persistent industry, will surely reach that higher and more enduring basis of prosperity and renown that are the rewards of a high course, and which constitute the true ends of effort and the noble objects of life These transcendental extremists may not do as much injury to society and medical science as those cunning, undermining, despicable, medical demagogues in our own regular ranks, who, under the authority of an ill-gotten diploma, smear their filthy slime on their daily ways of humbuggery and evil. Their motives are superior to those of these pests of the profession; but, whatever their purposes, they do more real harm to science and the profession than those irregulars who come out openly against us, and boldly pitch their tents outside the garrison of Legitimate Medicine.