

An essay on epidemics, as they appeared in Dutchess County, from 1809 to 1825. Also a paper on diseases of the jaw-bones; with an appendix, containing an account of the epidemic cholera as it appeared in Poughkeepsie in 1832 / By Hunting Sherrill.

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Sherrill, Hunting, 1783-1866.

Publication/Creation

New-York : Printed by Booth & Smith, 1832.

Persistent URL

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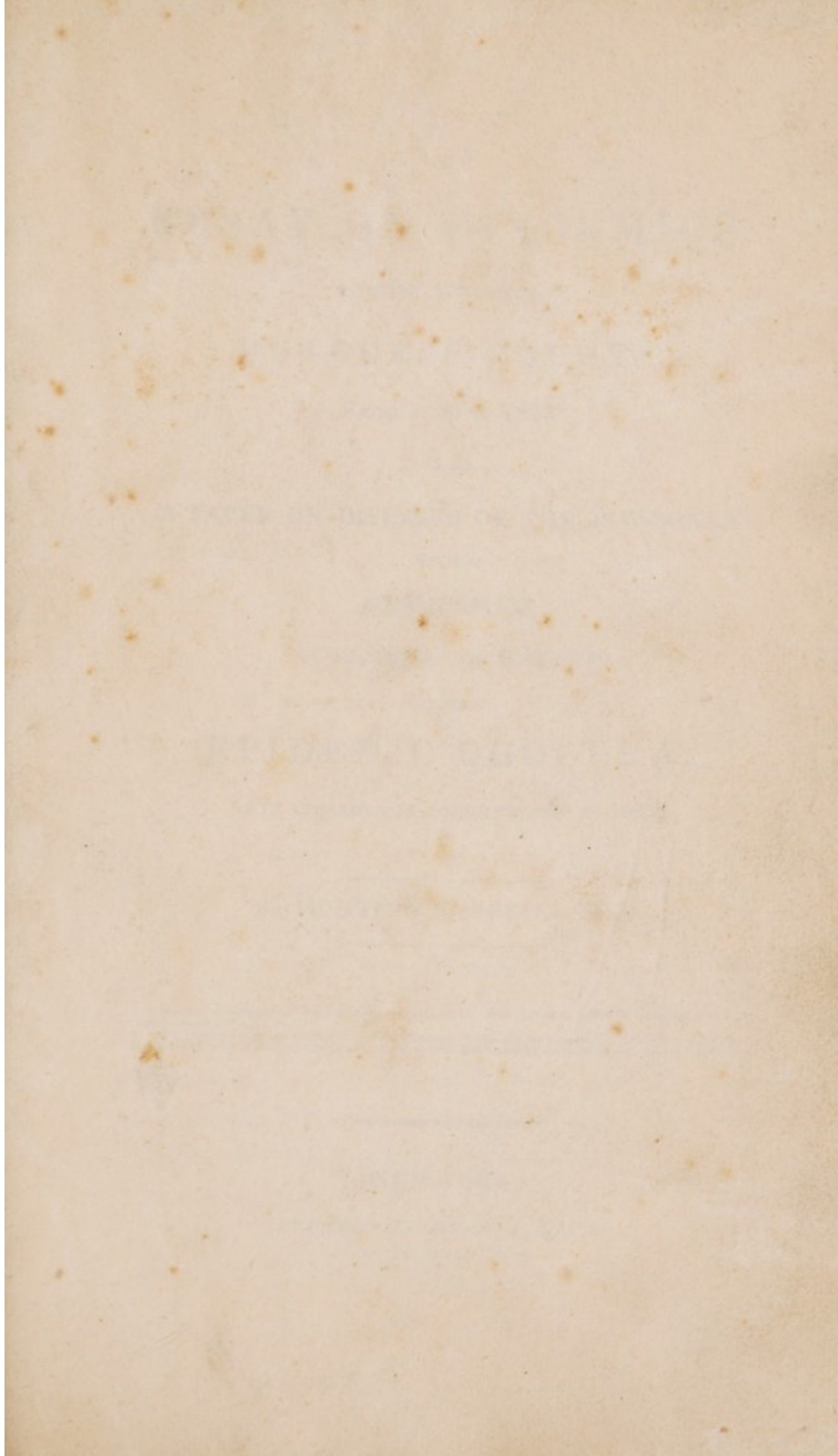


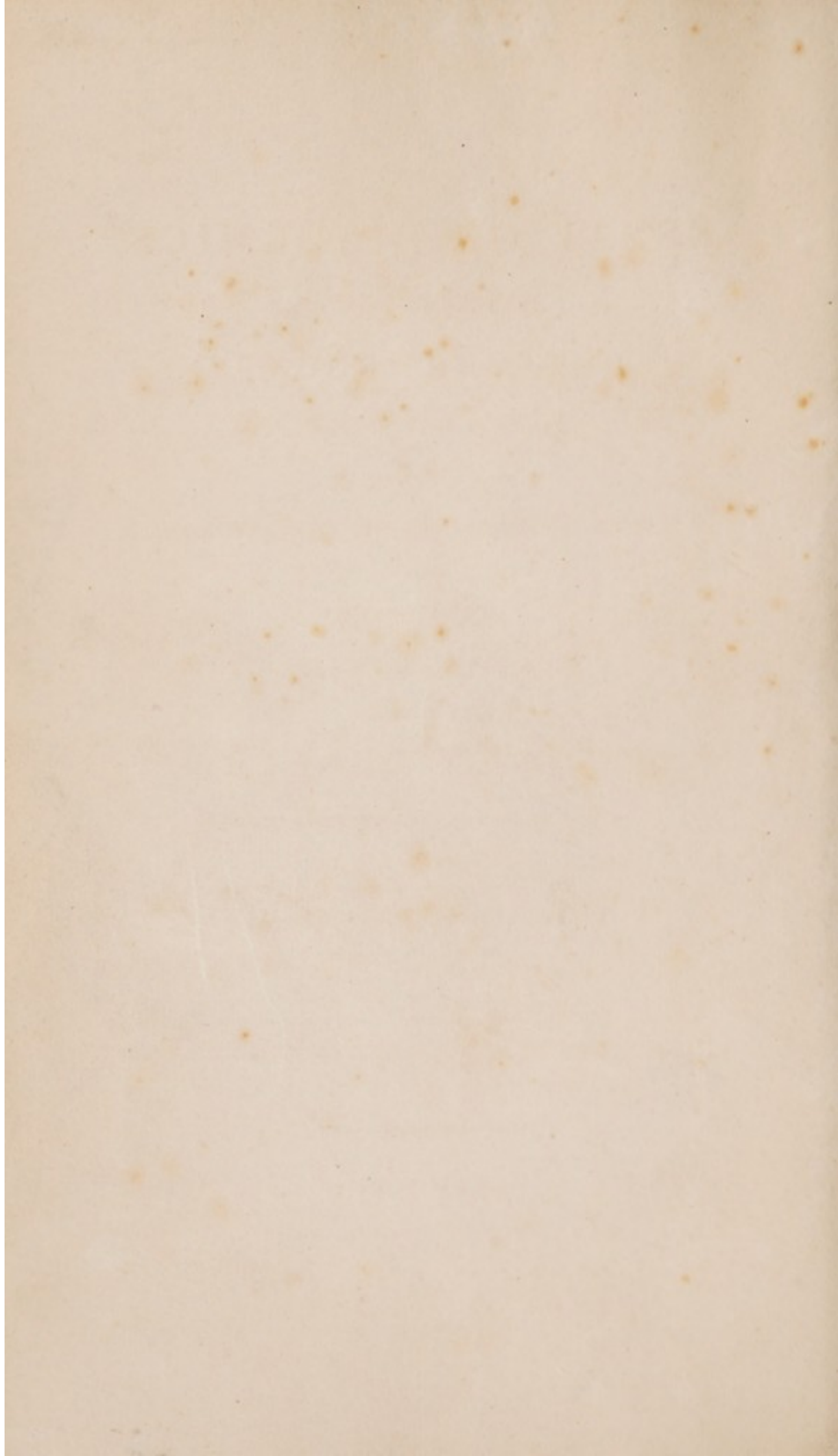
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AN

ESSAY ON EPIDEMICS,

AS THEY APPEARED IN

DUTCHESS COUNTY,

FROM 1809 TO 1825:

ALSO,

A PAPER ON DISEASES OF THE JAW-BONES ;

WITH AN

APPENDIX,

CONTAINING AN ACCOUNT

OF THE

EPIDEMIC CHOLERA,

AS IT APPEARED IN POUGHKEEPSIE IN 1832.

BY HUNTING SHERRILL, M. D.

" Record the Epidemics of every season : such records, if published, will be useful to foreigners, and a treasure to posterity."—Dr. Rush.

" Our occasions of acting are so fleeting, that they must be seized at the moment. If almost any acute disease be neglected in the beginning, protracted illness generally, and frequently death, is the consequence."—Dr. Bard.

NEW-YORK :

PRINTED BY BOOTH & SMITH,
No. 22 Nassau-street.

1832.

AN
ESSAY ON EPIDEMICS

BY
J. H. KELLY

FROM 1800 TO 1825

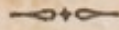
A SERIES OF DISSEMINATIONS OF THE DISEASES

AND

EPIDEMIC CHOLERA



P R E F A C E .



THE town of Poughkeepsie is situated on the east bank of the Hudson River, about seventy-five miles from its mouth; it is the metropolis of the large and wealthy agricultural and manufacturing County of Dutchess; it is located on a sandy loam, elevated and dry. The village contains about six thousand inhabitants, and the township about eight thousand. It was in this village that the Epidemic, of which this paper treats, prevailed; it also prevailed in other parts of the county in a considerable degree, in somewhat scattered cases; and in one small settlement, for the place, a large number of cases occurred. There was a few scattering cases in some other towns in the county.

The history of the Epidemic Cholera, its progress and effects, had been watched, after it approximated towards us, with much care and solicitude. This disease, according to all the accounts given of it, seems to affect, locally, so many portions, or all parts of the system, that it is difficult to assign a particular place for it, in a classifying arrangement. Although the inner coat of the alimentary canal is generally a prominent seat of affection, other parts seem to exhibit more prominent marks of diseased action, both before and after death. It would be a subject worthy of some able mind to examine whether the affection of the bowels is the seat of the original disease, or whether this affection is not rather an effort of the

more particularly examined into, and the treatment applied according to that, what had been a very fatal disease, was disarmed of half its frightful appearance. In this epidemic all kinds of prescribers came forward, with nostrums and specifics to prevent and cure the disease, and, too frequently, medical men yielded their professional position, and dabbled in the use of whimsical and inconsistent modes of treatment.

In the prevailing Epidemic Cholera, whether the name adopted for some of its prominent features is the most appropriate and fortunate, we do not undertake to determine, but one truth appears, that no disease of which we have an account, has had such a number of remedies, nostrums and plans proposed to prevent it, and none that has been subjected to such a great variety of modes of treatment.

The principles assumed and practised upon in the prevalence of the former epidemic of 1812--13, having proved so very useful in the prevailing disease, that in composing an account of this, it was found necessary to refer to that Essay, and to save repetition, it seemed of importance to connect them together, although the diseases are of different names, yet many of their prominent symptoms will be found to resemble each other; the state of the blood-vessels, the traces of congestion, &c., are very similar, so that much advantage may be gained by drawing a comparison between them.

AT a Meeting of the DUTCHESS MEDICAL SOCIETY,
it was resolved, that DR. SHERRILL be desired to pre-
pare for the press, and take measures to have printed,
the Papers on the Diseases of our County, which he
has formerly read before this Society; and that the
Members of the Society be requested to subscribe for
the Book when offered for publication.

A true copy from the Minutes.

CALVERT CANFIELD,

SECRETARY.

April 9th, 1826.

Faint, illegible text, possibly bleed-through from the reverse side of the page. The text is too light to transcribe accurately.

TO
THE MEMBERS
OF THE
DUTCHESS MEDICAL SOCIETY:

AS
A TESTIMONY OF REGARD AND ESTEEM
FOR
YOUR ACQUIREMENTS AND JUDICIOUS EXERCISE OF THE
Profession,

AND
AS A GRATEFUL ACKNOWLEDGMENT
FOR THE ATTENTIONS CONFERRED,

THESE PAGES

ARE
MOST RESPECTFULLY INSCRIBED, BY

THE AUTHOR.

HYDE-PARK, MAY 1826.

TO
THE MEMBERS
OF THE
DENTISTS MEDICAL SOCIETY
A TESTIMONY OF REGARD AND ESTEEM
FOR THE SERVICES AND DEDICATION OF THE
MEMBERS
AS A GRATEFUL ACKNOWLEDGMENT
FOR THE SERVICES RENDERED
THREE PAGES
THE AUTHOR

PREFACE.

IN attempting to comply with the regulations of our County Medical Society, while filling an official station in it, a short historical account of its prominent diseases was drawn up for the occasion, compiled from notes and memorandums, collected at various times. The manuscripts having answered the purpose for which they were written, were laid aside, with an expectation that they would remain in private obscurity. A number of friends have latterly solicited their publication: in compliance with which, and the resolution of the Medical Society, they have been corrected, and fitted for that purpose.

The general and cursory manner in which the several subjects noticed must be touched

on in an Essay of this kind, will necessarily frequently lose the advantage of detail and elucidation: but it is cursory history, a collection of some facts, and general principles only, that is attempted; with a hope, and leaving opportunity for some one better qualified, to improve upon the hints and elucidate the subjects.

In addition to the original manuscripts, with some slight corrections, such remarks as further observation and experience has suggested, are added in notes.

AN
ADDRESS,
DELIVERED BEFORE
THE DUTCHESS MEDICAL SOCIETY,
AT
THEIR ANNUAL MEETING
IN
NOVEMBER 1819.

ADDRESS

THE DUTCH MEDICAL SOCIETY

The Dutch Medical Society, established in 1835, is a professional organization of physicians in the Netherlands. Its primary purpose is to advance the medical profession and to promote the highest standards of medical practice. The society is composed of members from various medical specialties, and it provides a platform for the exchange of ideas and information. Through its publications and conferences, the society plays a significant role in the development of medical science and practice in the Netherlands.

ADDRESS.

GENTLEMEN,

CONNECTED as I am with this Society, agreeably to its by-laws it becomes my duty, on this anniversary, to deliver before them an address. In turning the attention to the numerous branches of medical science, some of which naturally present themselves as a subject for this discourse, one finally has been selected, which, more than others, may be interesting to this audience and this generation; one with which we are all somewhat acquainted; and the facts connected with which, the community at large have had an opportunity, in a greater or less degree, of witnessing.

The subject to which your attention is directed, is a retrospective view of the diseases of our county for ten years past. I beg you would forget the abilities necessary to execute this task with propriety, and listen with candour to the efforts of a member, whose regard for this Society was his principal qualification that entitled him to your choice.

In progressing with this review, it is not to be expected we should detain you to notice and investigate the occasional and incidental diseases that are the occurrence of every day and every year, under almost all circumstances; but will aim, with impartial faithfulness, to trace the progress of the train of epidemical and endemial excitement, and notice the prominent features of diseases as they have arisen and affected the human system, and point out a general outline of the method that proved most successful in the cure. Permit me to claim much indulgence for selecting this subject, which is approached with diffidence; for, independent of the want of qualification to do justice in so extensive and important a field of inquiry, the nature of it is such, that, to give it something near a fair and full consideration, will trespass more upon your time than the Society probably had expected, and more than I could have wished. But when it is recollected, that it is an investigation of health and disease—that the theme before us is a consideration of the preservation of life, or its termination in death,—it is trusted this respected audience will yield indulgence patiently to hear us through.

I proceed now to observe, that in 1809, when I commenced the practice of medicine in this county, I found it very subject to fevers

of the intermittent and remittent type, and in the autumn assuming symptoms of high bilious grades of disease. I learned that the district of country in the town of Clinton (now Hyde-Park), along the east bank of Hudson River, and also along Crum Elbow Creek, which empties itself into the river at Hyde-Park, had for several years been very subject to those types of disease; so much so, that the creek fever and the Hyde-Park fever had become proverbial in this part of the county. The same types of disease spread more or less through the county, particularly along the banks of Wappinger's Creek, which traverses this county nearly from north-east to south-west, especially near the alluvial lands as you approach its source in the town of Stanford and North East (since Pine Plains), where the disease obtained various local and popular names; still it was all remittent bilious fever, and governed by the same general laws. The vernal season opened with intermittent fevers of a mild character, and occasional remittents. As the season advanced, and the weather became warm, the intermittents became more severe and obstinate, and the remittents increased in proportion to number as well as in severity. Toward autumn and in the fall, real bilious remittents became very prevalent. These frequently were attended with symptoms of great severity: many of the cases were ushered in with

Fevers of
1809.

rigors, restlessness, nausea, and sometimes vomiting; violent pain in the head, back, and limbs, generally; and in many cases during autumn, such was the severity of the pains, that the suffering patient, in describing his case, would give vent to his feelings by a flood of tears. In a number of cases, a great similarity was discovered to that disease noticed by Dr. Rush, called the break-bone fever, which appeared in and about Philadelphia, as connected with or influenced by the yellow fever of 1780.

Symptoms.

The skin, tongue, and eyes, often showed a yellow bilious tinge in the incipient stage, and never failed to exhibit these symptoms during the progress: the skin often became of an orange yellow. In the progress of the disease, where the remedies had not been well directed in the early stage, the tongue became covered with a dry brown or black scurf; the skin dry and husky, attended in some cases with delirium, though this was not a very common symptom: cases sometimes ran into a protracted state, and continued twelve or thirteen days, and then terminated favourably. But the more general character of the disease, when the patient had early and proper attendance, was to intermit on the fifth, seventh, or ninth day, and form a salutary crisis. The disease sometimes fell with its principal force on the bowels, producing a dysenteric affection.

This was the constitutional character of the diseases during the summer and fall of 1809, 1810, and 1811, though there was less sickness in 1811 than in the preceding years, and those cases were of a milder grade. The remainder of those years were generally healthy, although there were more or less cases of phlegmasial disease, as catarrh, pneumonia, enteritis, croup, &c. This period of 1811 was also attended with a peculiarly obstinate cutaneous eruption, which frequently extended into blotches and sores; from what circumstance I know not, but it obtained the popular name of merino itch. This eruption often resisted the usual remedies for common cutaneous affection. To effect a cure, it was often necessary to have recourse to active mercurials externally, and alteratives internally. May not this disease have been a precursor of one of more violence that followed it—the winter epidemic? (1)

Obstinate
eruption.

The method which proved most successful in the cure of those fevers, was—in the intermittents, effectually to cleanse the alimentary canal; and in the intermission, to administer bark (cinchona) bitters, wine, &c.; and during the febrile stage, diluents and sudorifics. The patient was sometimes much benefited, by anticipating the fit, by an anodyne, or an anodyne combined with sudorifics. It was sometimes

necessary to vary the mode, by anticipating the fit, with blisters, or substituting mineral preparations instead of, or combined with the bark.

Fowler's
solution
most use-
ful in the
spring.

From the difficulty of getting children to take bark, Fowler's arsenic solution appeared well adapted to their cases, and it was used with advantage: but it was observed that in adults, as well as in children, this remedy had a much better effect in the vernal than in the autumnal cases. This may probably be accounted for, from the vernal cases partaking more of the phlegmasial character; whereas in the autumnal, the system was more saturated with bile, and acted upon by its effects; and to effect a cure, evacuations from the stomach and bowels were among the most effectual remedies.

Blood let-
ting in obsti-
nate Inter-
mittents.

In a number of cases which proved obstinate, and did not yield to ordinary medicines, there sometimes was a preternatural tension and fullness in the system. In such cases, a cure was effected by suspending the use of the bark and tonics, and making use of blood-letting, with blisters to the wrists and ankles, as recommended by Dr. Rush; after which, tonics effected a cure.

In treating the remittent type of the disease, evacuating the stomach and bowels, and the usual sudorific course was pursued, with a

frequent repetition of cathartics. When an intermission supervened, tonics were administered; and as the fever subsided, the strength was supported and kept up by nourishment and invigorating remedies. The vernal and summer cases pretty readily yielded to this discipline. But at the approach of autumn, when the disease assumed more of a bilious character—when the system was operated on by fever, attended with high grade of bilious affection—when it was decidedly the autumnal bilious remittent fever,—something more than refrigerants, diluents, sudorifics, &c. appeared necessary to overcome the febrile excitement. From taking a view of the symptoms, evacuations seemed most strongly indicated to produce that effect, and they were the remedies mostly relied on. The method of evacuating selected, was generally from the bowels. This practice was founded on such authority as Dr. Rush, who used cathartics as a leading remedy in curing bilious fevers. Townsend, in his Guide, repeatedly recommends cathartics as the most useful remedy in fevers of this type, and in other diseases. Dr. Hosack and Dr. Miller, in their Lectures, strongly recommend alvine evacuations in fevers of this type. But the usefulness of purgatives in fevers, as well as in many other diseases, is more fully pointed out, and their effects detailed, by Dr. Hamilton,

Remittent
of 1810.
Treatment.

in his Treatise on Purgative Medicine, whose method was more particularly followed. When there was actual puking in the commencement of the disease, an emetic was administered: where this was not the case, a course of cathartics was commenced, or those followed the emetic when that was given. They were given in small divided doses, so as to administer about a quarter of an ordinary dose at a time, and that repeated every three or four hours, till six, eight, or ten evacuations were produced. This generally pretty well evacuated the bile and crudities of the intestinal canal; relieved the depression, and much of the pain and fever; and was generally followed by easy perspiration. Gentle sudorifics were then introduced, with diluents; and where there was much pain, as was frequently the case, opiates were given in sufficient quantity to allay that. As a diluent, simple cold water(2) was always most palatable to the patient, and perhaps as salutary as any. Cathartics were again repeated, either alone, or combined with sudorifics, so as to procure six or eight stools as often as every alternate day. Much might be said on the immediate salutary effect of those remedies on the system: but as there will be occasion to notice them more at large in the account of the winter epidemics, we pass on to observe, that when an intermission in the fever occur-

red, nourishment, bitters, bark, wine, &c. were exhibited, according to circumstances. The articles of medicine generally used for cathartics, were sulphate of potash, rhubarb, jalap, and calomel, differently combined, or all well ground together: the quantities of each administered could exactly be determined, having always practised accurately weighing all active medicine.

It was stated that the disease formed a crisis on the fifth, seventh, or ninth day. It may, however, be remarked, that an intermission was frequently had on the third day: but the greater number of critical days were the fifth and seventh. Sometimes the disease assumed an irregular intermittent or remittent type, and became somewhat protracted; but generally the patient convalesced pretty readily after the crisis. Of the cases treated in this way, there was seldom a black scurfed tongue or much delirium, or those symptoms supervening that would warrant our calling it a typhoid case. From some memoranda which were kept of the disease, it seems there were more than one hundred cases, of the remittent type of fever, came under my prescription in 1810. There was but one case that assumed symptoms strictly of a typhoid state of disease. This patient had a turn of the fever on the thirteenth day, and recovered. This was the most

protracted and most typhoid case that occurred during those three years. As an external application, blisters were used with apparent good effect.

Termination of remittent type in 1811.

We have remarked, that the fever was more mild in the autumn of 1811, than it had been during the preceding years. It exerted less force in its action, and the cases were less numerous. The disease declined early in the fall: it seemed to have spent its force, and finally suspended its operation on the human system, not only for this year, but nearly so for every year since; so that it may be considered that here terminated the train of summer and autumnal bilious disease; and our county has been subject to very little of that character of disorder since.

Winter epidemic

In the latter part of 1811 and the commencement of 1812, an unusual degree of health existed. We had no fevers of any particular description, and few other diseases, until about February. Cases of disease began to occur, somewhat novel in their appearance and progress, which operated with unusual force on the human system, and in many cases terminated fatally and unexpectedly. It was no less than the commencement of a disease, that called forth an exertion of the medical faculty; that excited much anxiety and solicitude in the community; and called upon its members fre-

quently to witness its melancholy effects, and frequently to draw forth their sympathies or mingle their tears with bereaved friends or relatives, from bereavements of those who had fallen victims to the *winter epidemic*. (3)

In describing the epidemic now commenced, it will be necessary to take into view the symptoms as they more generally occurred, as there was no particular set of symptoms that characterised each case, and perhaps no one that was present in every case. The general character of the disease was a pneumonic affection, combined with a fever of a remittent and bilious type; or a remittent and bilious type of fever, without pneumonic symptoms. Sometimes one type of disease predominated, sometimes the other; at other times they were very equally combined.

Whether the bilious symptoms were owing to a redundant secretion of bile, or a diminished quantity of that fluid; or whether the quantity or quality of the bile was a cause of the bilious symptoms, or the state and secretion of it a consequence of disease, although worthy of notice, is not a subject for present investigation.

The case was generally ushered in with agues, or chills, which frequently continued an unusual period. (4) Generally, the longer time they continued, the more obstinate was the

Symptoms.

case. Sometimes there was a sudden prostration of strength, and great want of action of the skin. Frequently at the commencement, the patient was affected with violent pain in the chest, difficulty of breathing, pain in the head, back, and some one or all the limbs, and nausea, and puking of bilious matter. Sometimes they were attacked with the usual symptoms of autumnal bilious fever, attended with a yellowness of the skin, yellow eyes, a yellowish tinge on the tongue, &c. Sometimes the patient was attacked with dysenteric affection, together with pain, and some of the other symptoms noticed. Appearances showing an accumulation of bile in the system, or an error loci of it, was an almost uniform symptom in some stage of the case; though some of the pneumonic cases differed very little from a common peripneumonia. When the chest was affected, at times the pain was very acute; at others, they complained of very little acute pain, but rather of a stricture and heaviness, and obstruction to respiration, from apparent inability to dilate the chest. The tongue, at the beginning, generally exhibited a white scurf, or that tinged in the middle with yellow: the edges were generally of a lively red; though in some cases it retained its natural appearance.

At the attack, when the chest was affected, there was some cough, more or less expectoration, and that frequently tinged or mixed with blood. When the chest was not affected, there was no cough or expectoration, and perhaps all the other train of symptoms. The patient often showed great apparent debility, and sometimes a disposition to syncope, or even fainting. The heat of the skin frequently was not increased, and sometimes diminished. The pulse in many cases was very little altered: sometimes it was in a morbid, healthy state; in general it was considerably varied. It may be arranged under six different heads: 1. A

State of the
pulse.

slow pulse. 2. An intermitting pulse. 3. A depressed pulse. 4. A frequent pulse, without much tension, feeling like an elastic tube, partially filled with fluid. (5) 5. A hobbling pulse; and, 6. A tense, full pulse. The fourth variety was the most common. Although the bowels were sometimes loose, and operated on in a dysenteric manner, they were generally costive, and frequently required active and repeated purgative medicine to move them. The patient was apt to be restless: there was a good deal of disposition to pain in the head; false perception, and delirium or stupor: sickness at the stomach, and puking, were very troublesome symptoms in the cure.

I did not perceive that any class was particularly subject to it, or exempt from it, but those of intemperate habits; and with those, like all acute diseases, it was most apt to prove fatal.

Typhoid
disposition.

There was a disposition in the disease to assume a malignant or typhoid type, particularly where evacuations were not early used. This, I am informed, was also the case in several instances in the city of New-York, where the disorder appeared sporadic. The system often laboured under great depression; the pulse almost uniformly rose, and became more natural or full after early evacuations.

This description applies principally to the incipient stage of the disease. The symptoms which succeeded in the progress, were much influenced by the method of treatment. In some of the violent cases the powers of life were suspended, somewhat similar to asphyxia, or a deprivation of a supply of oxygen to the lungs, by the inhalation of carbonic gas. Dissections after death, showed the lungs, and the blood-vessels of the lungs, and the heart, to be distended, and engorged with blood, and in such a situation as to be unable to admit the air into the bronchial cells; and of course the blood was deprived of its necessary supply of oxygen.

Whether the disease put on those appearances in all parts of the county, I do not under-

take to say ; but in some parts it appeared to be attended with more fatality than others. The nature of my business happened to be such, that I saw cases of it in several towns ; in all of which there appeared no material difference. The Rev. L. Birch of Stanford, who devoted the most of his time, in his pious and sacerdotal office, among the sick, the dying and the dead, kept an accurate list of the number of deaths that occurred in that town of the epidemic of 1812, and politely furnished the result, which is as follows :—January, 4 ; February, 4 ; March, 18 ; April, 24 ; May, 11 ; June, 2 : total, 63. The town contains about 50 square miles, and 2350 inhabitants. He observed that the lungs in many cases were affected, and in many they were not diseased. A yellowness of the skin and eyes was very common : many raised blood, or bloody matter. He did not observe any spots on the skin. From the best observations he could make, he thought that out of the whole number that sickened, one-third died. He visited in the disease, a good deal in the adjacent towns, where it exhibited about the same character, and was attended with the same result. A physician of extensive business in that part of the county, gave me a very similar account of the disease, except he thought, in about one half

The Rev.
L. Birch's
statement.

of all that were actively seized, the case terminated fatally.

The great business of a practitioner of medicine, at the appearance of numerous and violent cases of disease, which he is called upon to alleviate, or conduct the suffering patient through, is to investigate the nature of it, to refer it to some general laws of morbid excitement, to observe the manner in which it produces its effects on the system, and to adopt some rational, and if possible, a successful method of cure. Some time previous to the appearance of this disease among us, we had had numerous and various accounts of a complaint that had prevailed in several parts of the Eastern States with a good deal of violence and mortality. Those accounts of the disease in the East, together with the method of treating it, were frequently contradictory, as they were brought to us by common intercourse and verbal communication, by newspaper intelligence, and by some professed medical publications. The opinion respecting the nature of the disease to the Eastward, which was more generally held in this county, which was the most popular and generally received, was, that it was a spotted (6) fever from debility, or that it was a disease of a direct typhoid character, and that all evacuating remedies were injurious in the cure of it.

Accounts of
the Eastern
disease.

Prepossessed as we were in this doctrine, we were ready to believe that we had the same disease, which so much had been heard of, as that which had prevailed to the Eastward; therefore the same remedies were thought to be the only proper ones in the cure. Whether there was a similarity or dissimilarity in the two diseases, is not a subject for present inquiry. Perhaps it ought to be remarked, when the disease first appeared, that with others I did passively receive the doctrine that we had an epidemic of a direct typhoid character; and this was so much in accordance with popular opinion, that it required very considerable firmness to resist the current that set in from every direction against every species of depletion: hence nurses, old women, and uninformed individuals soon appeared with hemlocks, essences, cordials, and a vast host of heating sudorifics, the use of which was commenced with the commencement of the case, ready to lop off the heads of the hydra epidemic. (7)

To show on what grounds the treatment which proved most successful was founded, and by which it was confirmed, I beg leave to introduce the opinions of some of the most eminent authorities in our profession. Perhaps there is no epidemic, or other general disease which attacks the human frame at the

present day, which is not nearly allied to, or corresponds with, some disease which has preceded it. Having adopted the alexipharmic (heating, sweating means, to drive the disease out through the skin) method in treating a few of the first cases, the result was unsatisfactory; when inclination and duty urged to an investigation of the nature of it, as it was exhibited, and to endeavour to ascertain what disease it might be associated with, and adopt a course of treatment accordingly.

Authori-
ties.

It appeared that epidemics were treated of by Sydenham, under three general heads. First, stationary fevers, or those produced by a peculiar constitution of the air: they exist for a certain time as the standing disease, preside over all others, or all others are affected by them. Of this kind may be enumerated plague, yellow fever, bilious autumnal fever, &c. The second he calls stationary intercurrent fevers, or those that take place more or less in every year, and at particular seasons of the year; such as pleurisies, peripneumonies, quinsies, &c. Under the third head, he arranges symptomatic intermittents, by which he means those diseases that partake of the stationary and intermittent diseases combined. When it was taken into consideration that the intermittent, remittent, and bilious fevers had prevailed in the summer seasons for several

years; when also it was recollected, that the diseases which generally are met with in the winter and vernal seasons, were those of the phlegmasial (inflammatory) type, or the stationary intercurrents of Sydenham; it was pretty readily perceived that the epidemic partook of both of those sets of diseases, and was to be referred to the last groupe, or that of symptomatic intercurrent fevers, exhibiting mingled symptoms of peripneumonic or phlegmasial, and remittent or bilious morbid excitement.

Therefore we met with cases putting on nearly the character of usual phlegmasial fever; and we saw it receding from that, through the varied grades of excitement, to the typhoid state of disease. It may now readily appear why the diseases were called and described by the different names of peripneumonia, peripneumonia notha, peripneumonia typhoides, bilious pleurisy, bilious fever, typhus fever, spotted fever, and many others, either of which was probably more correct than the delusive ones of *typhus fever*, or *spotted fever*. (8)

Among other sources of information on the subject of the Eastern fever, we had Dr. Dr. North. North's book, in which that disease is described with much accuracy and candour, and the treatment detailed, of a liberal, high, mustilating nature, which, however, proved very

Dr. Mott. unsuccessful with us. Dr. Mott is of opinion that ours was a different disease as he saw it on Long-Island. Dr. Mann, Hospital Surgeon during the late war, who perhaps saw his full share of the Eastern disease, being an Eastern man, and no doubt, as Hospital Surgeon during the war, saw more than most others of the disease under consideration, as it spread along the Northern frontier, extending from Greenbush to Burlington, and from Plattsburgh to Niagara, thinks they are diseases of different grades of action. (See *Med. Repository*, also *Dr. Mann's book*.)

Mixed diseases.

Mixed diseases, with similar symptoms, it appeared had often been described, and some of the leading remedies pointed out. Sydenham describes a peripneumonic affection combined with a preceding fever, which occurred in England in 1675: the symptoms in many respects agreed with those of ours. He observes, "it always began with pain in the head, back, and limbs." With respect to the cure, he proceeds—"The symptoms were best relieved by moderate bleeding, applying blisters, giving clysters every day," &c. Dr. Rush compares with this, bilious pleurisy of the United States.

Bilious inflammatory diseases.

This author also describes a disease which appeared in 1685, which he calls a new fever, or winter fever. It was of the peripneumonic

class of fevers. The symptoms correspond so well with those which have been ascribed to this, that I will take the liberty to transcribe some of them. "Heat and cold; pain in the head and limbs: pulse is not much unlike that of a healthy person. A cough mostly, with other concomitants of a mild peripneumonia: lying always in bed is often dangerous. Petechia (spots) or eruptions frequently appear, occasioned by an unseasonable use of cordials and hot regimen. Though these eruptions do sometimes come out spontaneously, yet they are frequently driven out by the warmth of bed-clothes and cordials." To effect a cure, he used moderate bleeding and purging, &c.

Boerhaave describes a peripneumony, which was not very unlike the pneumonic type of ours. He observes—"It is cured by this most prudential method: let the patient be blooded; let a clyster be injected daily, till it appears, by proper signs, that the lungs are eased; use diluting and opening aposems; lay on large blisters," &c.

Dr. Cleghorn, in his *Treatise on the Diseases of Minorca*, informs us, that pleurisies and bilious diseases are often combined in that island. To cure them, they require evacuations.

Dr. Rush notices a fever which appeared in Philadelphia in the winter of 1793, which he

calls a bilious inflammatory fever. The same author gives an account of bilious pleurisies and peripneumonies, which appeared in 1794, and some of the following years. They were cured by bleeding, purges, &c.

John Bell, in his System of Anatomy, in detailing the causes which prevent a due oxydation of the blood in the human system, among others, mentions peripneumonia notha. He says—"There is not merely an inflammation of the pleura, as the name expresses, but of the lungs themselves; and it is not from inflammation, pain, fever, and acute suffering, that they die, but because the lungs are entirely crammed with blood, the heart can no longer move. They (the patients) are not sensible of their dangerous state, but are suffocated in a moment, and die without a groan. When this disease comes upon a place, it comes with all the frequency and destruction of an epidemic disease. The pulse is weak, the cough slight; the difficulty of breathing more anxious than painful; the face shrunk in the features, and flushed, or rather of a lurid colour, except when it was cadaverous (deathly), pale, and sallow. The suffocation is sudden; the lungs have no longer the cellular appearance of lungs; their bronchia (air cells) are crammed with blood: the heart is so curbed in its action, that it gives but a small, feeble, and

Lungs obstructed, produces ghastly appearance.

trembling pulse." It appears Mr. Bell gives a very accurate description of many cases of the winter epidemic, and an explanation of the cause of the irregular, small, and yielding states of the pulse. The remedy for such a state of disease, naturally indicated, was to excite the circulation and action of the cutaneous and capillary vessels, and to abstract some of the blood, to relieve the engorgement of the large vessels; so that there might be a less quantity of blood to oxydate, that the celerity of the blood through the lungs might be increased, while the inflammatory action was subdued, and the system enabled to receive the oxygene with greater ease.

The Sydenham of our country, Dr. Rush, suggests such a remedy, that where such an engorgement of stagnating blood has taken place, the best remedy is bleeding, in small quantity, and often repeated. By this mode, we give the viscera an opportunity of emptying their superfluous blood into the vessels, and thereby prevent their collapsing from a sudden abstraction of the stimulus which they contained.

In the History of North Carolina, written by Dr. Williamson, he remarks, that bilious pleurisies are frequent in that climate in the winter; and upon the approach of febrile symptoms, some are apt, as they express themselves,

to brave the fever. In this case, by taking exercise, and not unfrequently by the use of *ardent spirits*, or other stimulant drinks, bring on a *typhus*.

In the Medical and Philosophical Register, Dr. Hosack describes the epidemic of 1812 and 1813 as a mixed disease, partaking of an inflammatory type, and requiring the lancet in many cases: typhoid in others, requiring cathartics, sudorifics, followed by cordials, &c. The editors of the same journal, Drs. Hosack and Francis, make a very similar remark.

Epidemic
peripneu-
monia.
Bleeding
useful in
the cure.

Dr. E. Miller taught in his Lectures, that peripneumonia notha sometimes became epidemic, when blood-letting is often required, with other depleting remedies; and that stimulants increased the debility, if given before evacuations were made.

Bowels;
their state
and reme-
dies.

Observing the torpid state of the bowels in many instances, and the similarity of symptoms, in many cases, to those which occurred in the fevers of 1809, 1810, and 1811, the mind was naturally directed to applying remedies to them.

In passing by many authors through succession of time, some of whom are mentioned, we remark that Wilson, in his Treatise on Fevers, observes, "if the bowels are constipated, we find the skin dry and shrunk: as soon as the bowels are restored to action, the skin becomes soft and moist."

In his justly admired Treatise on Purgatives, Purgatives.
 Dr. James Hamilton states, "when he had given purgatives, the tongue, which had been dry and furred, became moister, cleaner, and a feeble, creeping pulse acquired a firmer beat, and the skin became moist; and I was gradually encouraged to employ purgative medicines in typhus, and to repeat them." The late Dr. Edward Miller, in his Lectures in 1807-8, while on the subject of bilious fever and yellow fever, informed the class that cathartics should be given, so as to keep up a kind of artificial diarrhœa. Dr. Hosack, in his Lectures for the same years, taught very similar doctrines. In a manuscript paper among the collections of Dr. Franklin, as stated by Dr. Rush, giving some account of the yellow fever as it prevailed in Virginia in 1741, it is observed, that purges were the most valuable and efficacious remedy, and one which effected a cure. It goes on to say: "All those acute putrid fevers require some such evacuations to bring them to a perfect crisis and solution, and that by stools, which must be promoted by art, where nature does not do the business herself. On this account, an ill-timed scrupulousness about the weakness of the body, is of bad consequence, for it is that which seems chiefly to make evacuations necessary; and I can affirm, that I have given a purge in this

case, when the pulse has been so low that it could not be felt, and the debility extreme; yet both one and the other have been restored by it."

Skin: state
of, and
sweating.

Sweating (9) seemed to be an evacuation much relied on, and no doubt with propriety, under certain circumstances: it appeared to require some precautionary steps to its free use. Among the many admonitions on the injury of forcing sweats in fevers, the following from Sydenham, will be in place here. "Sweating depends upon the regimen; for if that be over-heating, it is in a manner viscous, and though it flows plentifully and universally, it affords little relief. To raise a sweat by medicine in the beginning of the distemper, ordinarily translated the morbid matter, if not to the head, at least to the limbs."

A remark of a learned modern divine, is worthy of notice. The Rev. Dr. Miller, in his *Retrospect of the Eighteenth Century*, says: "To oppose the cardiac and alexipharmic doctrines of the Sylvian school, the illustrious Sydenham was eminently suited. The sagacity of this physician led him, by an almost seeming intuition, to discover and obey the dictates of nature, and to afford every proper assistance, without urging her to useless and hazardous efforts. The effects of this revolution were immediately seen in the improved

treatment of acute diseases of every description; when, instead of the fashionable alexipharmics, intended to promote imaginary depurations, by additional heat and increased stimulus, a safer antiphlogistic or cooling plan was adopted, with a view to unload the oppressed habit, to reduce excessive action, and to preserve the strength of the system for the subsequent conflict." (10)

Revolution
from the
heating to
the cooling
plan.

Wilson observes, that when a patient was confined to a hot room, and loaded with bed-clothes, if a sweat was produced it almost always did harm.

Although the theory of fever adopted by the immortal Dr. Cullen, leads to place much reliance on sweating as a remedy to overcome the atony and spasm of the superficial and cutaneous vessels, he has important cautionary observations, that "sweating has been generally hurtful, when excited by stimulating, heating, and inflammatory medicines; that it has been hurtful when excited by much external heat; that it has been hurtful when it does not soon relieve, but rather increases the frequency and hardness of the pulse, the anxiety and difficulty of breathing, the head-ache, and delirium; that it is always hurtful if it be urged, when it is not fluid and when it is partial."

Cullen's
cautions.

I inferred the disease to require evacuations, from observing that the pulse did not readily

raise by the use of alexipharmic remedies ; that the skin remained obstinately dry under their use ; and that the delirium and stupor were apt to be increased by omitting evacuations. I also inferred it to require evacuations, from observing it nearly allied in many cases to the bilious remittent fever which had preceded it, and from those diseases being protracted, and rendered obstinate, if not fatal, by omitting them ; in which respect the epidemic under consideration agreed.

I inferred those remedies to be indicated, by observing spontaneous hemorrhages being attended with salutary effects. It often happened, that a favourable crisis was formed immediately after a considerable discharge of blood. I will select one instance. A young woman in the family of William Bard, Esq., who had a severe pneumonic case, had bleeding from the nose nearly all night on the sixth day of the disease : a crisis was formed the next day, and she recovered. From what had been learnt respecting epidemics, I perceived it was the general opinion, that when they prevailed, all diseases partook of their character, or "were compelled to wear their livery : " and when the disease first appeared, according to popular report, I was expecting to find all diseases exhibit a typhoid character. This position soon proved incorrect, that all dis-

eases were typhoid. On the contrary, it appeared that we had a disease of an inflammatory type, either uncombined or mixed with that said to be of a different character; for, soon after its appearance, I was called upon in the night to visit Dr. S. Bard. On entering his chamber, I found him labouring under a violent attack of disease, attended with difficulty of breathing, restlessness, barking hoarseness, and symptoms of croup. The prevailing disease had been described as violently seizing local parts at first, before it produced its general, or prostrating effects on the system. I hesitated as to the remedies. The first impressions were, that it might be a case of epidemic, disguised in this form of disease, and that bleeding might prove fatal. There had been many fatal cases of it in the county; and if the disease was what popular opinion represented it, that remedy might prove fatal here. Bleeding, however, was thought advisable; and the symptoms were such, that in about ten hours it was repeated, by which, with other remedies, he recovered.

Dr. Bard's
case of
croup.

It was inferred that evacuations would be proper, by observing difficulty of respiration, pain in the chest, and suppressed cough and expectoration in the latter stage of the disease, and until death (11); and from noticing a white scurf on the tongue, with a lively red-

Distress in
the chest
till death.

ness of its edges, in the early periods of the case, which Dr. Rush says is an invariable sign of an inflammatory diathesis. A similar fact is taught by Dr. Hosack, in his Lectures.

It was inferred that evacuations would be proper, by noticing a suffocated state of the lungs and ghastly appearance of the countenance, and sudden loss of the animal functions, which, in the commencement of disease, I could not perceive could be produced by debility from abstraction, but might be by debility from action.

I inferred the use of evacuations by the lancet to be indicated, by observing the small and irregular states of the pulse; in which Dr. Rush recommends its use in the commencement of disease.

Blood, ap-
pearances
of.

The blood was usually of a dark appearance, showing signs of not being properly oxydated; and at the first, bleeding did not always show the sizzly coat, when it afterwards did. It often had the colour and consistence of molasses. Blood of those appearances, is placed in a scale of inflammatory action or depression, above that which has a buffy coat.

With this view of the subject, we now come to the method of treatment which has, in some measure, been anticipated. The use of the lancet (12) was commenced cautiously, particularly it was used in those cases where there

was a pneumonic attack. After bleeding, an emetic was given, which was followed by a course of cathartic medicines, according to circumstances, so as to produce repeated and thorough alvine evacuations; or, as sometimes was the case, an emetico-cathartic of calomel and tartarised antimony was exhibited. The emetic seldom failed to discharge quantities of bile, which was frequently very viscid and glairy. In some cases friction, with moderate warmth, was applied to the skin. Sudorifics and expectorants, with a pretty liberal quantity of calomel, were given in the progress. The calomel was generally given so as to operate on the bowels, connected with an extensive use of blisters; and as the disease yielded or shaped, those were followed by nourishment, cordials, tonics, stimulants, &c. In many of the cases, it was of service to begin with the latter remedies pretty early after the evacuations; and at this or the latter stage, it was frequently necessary to use stimulants freely in the progress. The case sometimes assumed that situation in which Dr. Currie advises the external use of cold water; when it was used in affusion and ablution with great advantage. After having lost five patients in 1812, my gratification may be conceived on the recovery of the first patient, Mr. I. Vandusen, (13) by the use of those remedies. He had a very violent attack

Treatment.

First case
of epidemic
cured by
bleeding.

of pneumonic bilious disease. His skin was yellow, and his tongue covered with a brown scurf. Within twenty-four hours from the attack, he was bled twice, 12 ounces each time. The emetics given brought off large quantities of bilious matter: after which the skin became softer and moister, and the pulse more regular.

In the operation of the cathartics, there was generally a copious discharge of bilious, feculent matter. After the bleeding, the pulse commonly became more full and fair, which was particularly the case after the other evacuations; and then the patient was pretty readily got into an easy moisture, by diluting drinks and gentle sudorifics.

The case occasionally so far partook of the phlegmasial type, as to require a repetition of the bleeding, and that sometimes on the sixth or seventh day, particularly in the latter part of the spring. In 1812, R. Nelson, Esq., now Editor of the Indiana Herald, who was very much prostrated in the attack, was bled at first: after which, the symptoms were such as to require two more bleedings to remove the disease. The system appeared to be relieved, and re-acted much better in many cases by taking a small quantity of blood at first, and repeating it. This was in imitation of the slow manner in which nature discharged the blood in those cases of spontaneous hemorrhage.

Small bleedings best sometimes.

There was much benefit derived in many cases, by occasionally repeating the emetic or the purgative medicines. As there was a great determination to the brain, (14) blisters to the neck and between the shoulders were of much advantage: they were also of much benefit to other parts, where local pain and affection existed, or to translate excitement. The disease frequently had a disposition to assume a suffocated or typhoid character, particularly where early evacuations had not been made; so that it was important to watch its progress, and obviate those symptoms by a timely use of tonics and stimulants. There were, however, probably many unfavourable consequences, from anticipating the approach or accession of the typhoid state before it had arrived. Many facts might be adduced corroborating this remark.

Importance of determining the time for commencing stimulants.

In that type of the disease in which the lungs were not affected, blood-letting generally appeared unnecessary. The first remedy, therefore, was an emetic, or a course of cathartics. The purgative medicine was given so as to produce a number of copious evacuations: these were followed, intervened, or combined with diluents and sudorifics, and externally blisters, or some other application to parts locally affected. I was often agreeably disappointed, on making a second or third visit, to

Remittent type.

find the patient, particularly children, who had been considered dangerously ill, sitting up, or in a playful, or comfortable, or convalescent state, after the operation of the evacuating medicines. In this type of the disease, the remedies varied very little from those which had been successfully used in the bilious remittent fever of the preceding years; except an earlier and more liberal use of wine appeared serviceable.

It appeared that by many practitioners much reliance was placed on calomel as a remedy; and very deservedly so, in the pneumonic type of the disease, when the case did not yield to the early use of the evacuating remedies. But in the bilious type only, it was seldom necessary, except as an evacuant; for in the majority of the cases, the patient would begin to convalesce sooner than the system could be placed under a mercurial action.

Mercurializing not required.

A very important period, which in the country we often lost the advantage of, was to see the patient early after the attack, and early to make use of vigorous remedies; for such was the rapidity of the progress of the disease, that the vital functions were soon impaired or destroyed, where they were not early relieved from the morbid action; for, like all acute or inflammatory diseases, the more violent the attack, the sooner it changed its type, and

assumed a malignant character when left to itself, or aggravated by remedies.

For most diseases with which our systems are subject to be affected, there are popular, and frequently unfounded, remedies in the hands of almost all sorts of prescribers: there are also in the same hands, remedies and prescriptions as preventives of those diseases. The truth of this remark was strongly exemplified respecting this disease; and in this, as in most cases, they hit upon one of the most pernicious tendency. The most general and popular preventives were heating, stimulant, and spirituous potations. Perhaps there is no remedy more universally resorted to by patients, and urged on them by their friends, at the approach of indisposition of any kind, than that of heating sweats and stimulants; and perhaps there is none that is more universally injurious in the forming stage, or early periods of all diseases of our climate. Hence those who are the nearest relatives and best friends, by their officiousness and ill-timed prescriptions, in a majority of cases, become the patient's worst enemy. (15)

Quack remedies.

Preventive remedies.

Whatever might have been the cause, there appeared to be a torpor on the vital and nervous system; and evacuations from the stomach and bowels were more particularly indicated where blood-letting was adopted.

Evacua-
tions from
the bowels
necessary
with bleed-
ing.

Perhaps blood-letting, without being followed by those evacuations, might in some instances have been attended with unfavourable effects. By emptying the blood-vessels, and leaving the bile and colluvies in the alimentary canal, their effects on the system probably became increased, and produced a greater degree of torpor and malignant tendency than though no evacuation from the blood-vessels had been made. The depressed, overloaded state of the system in many cases was such, that by using blood-letting largely at once, no doubt would have been injurious; or to have used it without following it by free evacuations from the stomach and bowels, re-action would not readily have taken place, and then bad effects might have ensued. It required the steady, persevering use of all those remedies to secure a successful result. By relying on sweating and heating remedies in this state, increased the depression, and carried down the pulse instead of raising it.

The whole number of cases which came under my care in 1812, cannot exactly be determined, having kept only some general notes. They were, however, more in number than in the succeeding year: the number of deaths were ten, five of which were among the first cases. The disease subsided in June, and there was little or no general febrile excite-

ment in the human system during the remainder of the year.

The year 1813 commenced with the train of epidemic excitement in about the same form that we had witnessed in the preceding year. With a view of determining the number of cases, the manner of attack, the result of the treatment, &c., for my private satisfaction I kept a register of the cases of epidemic disease for 1813. It commenced with the commencement of the disease, and daily entries were made as the cases occurred. By this register it appears that one hundred and twelve cases came under my care, exclusive of those which I had an opportunity of seeing, which were attended by other physicians. Of this number, sixty-three were bled, five were bled twice, and one was bled three times. Sixty-one of those were pneumonic cases; of course there were fifty-one in which the lungs were not diseased. Out of the whole number there were seven deaths. Respecting those who died, some remarks are proper. Four of them were of intemperate habits: one had been in the habit of drinking from a pint to a quart of spirits a day; so said his friends: the disease seized him like a whirlwind, and soon carried him off. The other three intemperates having recently come into the place, had their prejudices about them, and obstinately refused

Number of cases.

being bled, though their situation urgently required it. One of them died in a state of furious delirium, with full symptoms of depression and turgescence of the system. One of the others took few or none of the medicines directed, and got little or no nursing. If those four that literally destroyed themselves are deducted, one hundred and eight cases remain, out of which there were three deaths—equal to one in thirty-six.

The disease again disappeared in 1813 on the approach of warm weather. A very healthy summer and autumn ensued. The train of the remittent bilious autumnal fever has been nearly extinct since the appearance of the winter epidemic. The summers and autumns in general have been healthy: the winter and vernal seasons have produced some cases of disease, in addition to the ordinary diseases of the season, which assumed more or less the character of the epidemic, which may be considered sporadic cases of that disease.

Disease of
1814.

In the autumn of 1814, our citizens were affected, and in some instances fatally so, in consequence of a febrile disease, which appeared to have its origin with the militia who were doing camp duty at Harlem and Brooklyn, in the vicinity of the city of New-York. From this circumstance the disease received the appellation of the Harlem or Brooklyn

fever. There might have been some propriety for it as a common or popular name. Owing to a pretty large detachment of the militia of this county being sent there on military duty, a number sickened there, and some died; some sickened, and came home on parole, and others sickened after their return: so that the first cases were among the militia soldiery, who had been serving their country in a military tour. By the influence of fell disease, they were compelled to retrograde from the bustle of war to recline upon a couch of sickness; and in some instances, to part with that vital spark which, no doubt, their valour and patriotism would have induced them more willingly to have relinquished on the field of conflict, in defence of their country and the principles of liberty.

The disease, however, was not confined to this class of people; it occasionally attacked others, though the principal part of the cases were among those of the family or attendants of those who had been in the army.

The symptoms attending the disease, were rigors, pain in the head, back, and limbs; the stomach was more or less disordered; the eyes were red, or blood-shot, tongue slightly furred; pulse sometimes full and firm, and at others small or yielding. In tracing the cause and nature of this disease, reference might be

Symptoms.

had to the place of its origin. It is an old observation, that when troops are collected together, and new armies raised, particularly when they are composed of militia, there are a variety of causes which operate to generate febrile disease. The general change in the mode of life and in the habits of the individual, are among those which operate powerfully to predispose the system to morbid excitement. Dr. Mitchill no doubt had this in view, when, in his report to the commander-in-chief in 1818, he observes,—“In case the militia should be called into actual service, many inconveniences arise from the sudden change of life. Men must be seasoned by degrees to the fare of a garrison, the camp, and the field; fresh habits must be formed; the powers of the body must bend to martial impulse. The habits of a military life are at length formed; and habit, as has been observed of old, is a second nature. But in moulding the frame of man by those modifying causes, it often suffers severely while it bends, and the old habit gives way. In some individuals this is so rigid and unyielding, that it breaks before it bends. To preserve its pliancy and elasticity, and to prevent the cracking and snapping of its fibres, are of the utmost importance.” To smooth the way from the citizen to the soldier—to avoid generating a predisposition in the body to disease—to

palliate the rigours of a camp life, and to preserve the vigour of the body of the army generally,—seem to be the leading and humane views of the Surgeon General.

In that early day, the great Jewish lawgiver seems to have been sensible of the importance of cleanliness and regularity in a camp, to avoid disease and pestilence, by his so strongly enjoining it in his system of laws delivered to the Israelites in the wilderness.

The disease did not differ in any essential degree from those ordinarily produced under similar circumstances, where the body is predisposed to disease, not only by those causes enumerated, but by the action of miasma, generated by animal and vegetable substances in a state of decomposition. The complaint was a fever of a remittent character, sometimes alternating with or combined with dysenteric affection, and attended with much heat, action, and fulness.

The remedies most serviceable in this disease were blood-letting: after that, or when it was not used, or when it was not thought to be indicated, the other remedies were vomits, followed by cathartics; and after repeated alvine evacuations, sudorifics, with occasional laxatives, were used; and in the progress, nourishment, tonics, wine, &c. In observations on the diseases of the army during the revolu-

Remedies.

tionary war, Dr. Rush says, "an emetic seldom failed of checking the fever, if exhibited while it was in a forming stage, and before the patient was confined to his bed." I have reason to believe that several cases were cut short in the same way, or rendered mild by early evacuations.

Diseases have been losing their complex character of 1812 and 1813. The winter diseases have gradually lost the bilious type, and appeared more in the simple form of phlegmiasial excitement; and the bilious or remitting character has been reserved, and is again appearing in the more usual autumnal season. While this change has been taking place during two or three years past, there has been a disease peculiar to each season, though none very extensively prevailing, and no particular epidemic.

Disease of
1819.

Diseases of
the throat.

About the beginning of the year 1819, although not very sickly, there were produced a variety of disease and grades of morbid excitement. There appeared a complaint of the throat and fauces: many cases were mild, others were severe; and some of them proved tedious, and in some instances very obstinate. The patient was attacked with some febrile affection; a general soreness of the throat and difficulty of swallowing, which was in some cases followed by a swelling of the pharynx

or tongue, or a thickening of the membrane lining the upper part of the œsophagus. Some patients fancied that a preternatural substance was growing in the œsophagus. In a number of cases the swelling became large externally, and in some instances suppurated. After the first, or febrile stage was over, a debility and relaxation of the parts about the pharynx (throat) and the ligaments of the voice took place, producing a hoarseness and difficulty of speech.

This disease required an antiphlogistic treatment in the incipient stage; that followed by stimulant applications to the throat and adjacent parts. Those cases which became tumified externally, were benefited or cured by continued blistering.

Mingled with this complaint, and immediately following it, we had cases of pneumonia, influenza, rheumatism, &c.; in all which, as well as in all febrile diseases of the forepart of the year, there has been a peculiar disposition to affection of the head, with pain, stupor, and sometimes delirium. Those cases of catarrhal pneumonia and affection of the head, with fulness, stupor, and some delirium, came near proving fatal in several cases: they were cured by large bleedings, and other active evacuations.

Disease of
the brain.

Scarlet
fever.

During the winter and spring seasons of this year, among other types and characters of disease, there appeared one which we have been very little accustomed to in this county within the period under consideration: it was the *cynanchæ maligna*, or scarlet fever. In the vicinity of Hyde-Park there were a number of severe cases, and some of milder attack. Early in the case, the throat became sore, and exhibited a fiery redness, which was followed by an eruption on the fauces (throat), and that by an aphthous scurf and ulceration of the part. In the progress, the skin exhibited a cadaverous appearance. When the throat was not much affected, the *scarlatinæ* flush or eruption appeared more on the skin. The best remedies for it, were an emetic in the early stage, or gentle cathartics, and those followed by cordial sudorifics: in some cases, a liberal use of tonics and wine became proper, as the disease advanced. I do not know of any death occurring with this disease in the county, and have not learnt that it prevailed in many districts of the county. One of our distinguished citizens, the Hon. James Tallmadge, may long have occasion with parental affection to lament the fatal effects of transferring an only son into an atmosphere predisposed to generate and produce this disease in Connecticut, where it prevailed to a considerable extent.

Nearly for the first time since the appearance of the winter epidemic, a few mild cases of intermittent fever have appeared. As the warm season advanced, some cases of the cholera morbus have been produced. Dr. Bard says, the principal remedies that he has found necessary in this disease, are laudanum and chicken-broth. As the season farther advanced, the bowels became generally affected with mild diarrhœa, though in some cases, and in some parts, it put on pretty severe dysenteric symptoms. As there are so many details on the method of curing dysentery, by systematic and other writers, it may be thought presumptive for me to say any thing on the subject. It may, however, be remarked, that the plan which seems to be attended with the best success, is that by evacuations in the early periods, succeeded by, or combined with, anodyne sudorifics. Sydenham used emetics as a first remedy to discharge the contents of the stomach, which otherwise became acrid, and settled on the bowels, producing troublesome or incurable gripes.

Intermittents returned.

Cholera and dysentery.

The surgeons of the army during the late war, bear testimony to the injurious effects of a too free use of astringents in this disease.

The late Dr. E. Hunting of Fishkill, who, during a long and successful practice, saw much of the dysentery epidemically, informed

Dr. Hunting on dysentery.

me, that the method which proved almost invariably successful, was to give an emetic of ipecacuanha, a cathartic of rhubarb, then small doses of ipecacuanha, rhubarb, and opium.

Yellow fever of 1819.

While the inhabitants of our metropolis, and the cities along the sea-board, almost from one end of the territory to the other, have been excited by fears and anxieties, and shunning the seats of pestilence, and fleeing their homes in "wild confusion," in consequence of the prevalence of malignant disease, (16) which appeared with threatening and alarming devastation,—our county has in general this season enjoyed an unusual degree of health. The autumn brought with it some cases of remittent fever, attended more or less with bilious symptoms, which in some instances has showed a disposition to protract its existence to a very considerable length. Whether this is owing to some peculiarity of the season or the type of the disease, or to some other cause, remains for further observation to determine.

In treating the successions and catenations of morbid and epidemical excitement, and witnessing the effects which disease, in various ways, produces on the human system, in impairing the regular operations of the functions of the body, we are in some measure shown the numerous avenues which prove outlets to human life: at the same time is brought to

view the multiplicity of ills which man is heir to—which, without the balm conveyed by the medical art, would swell the long and gloomy lists of painful affection, and premature terminations of our existence!

It will be perceived, that the practice of medicine is not a business of nostrum or specific—that diseases are not to be met with, simply confined within the lines of nosological arrangement, nor cured by specific remedies for specific diseases; but that the character of the disease, the stage of the case, and the grade of excitement, ought to govern the prescriptions—that a faculty of discrimination in detecting and applying remedies to them, constitutes the most correct and most skilful physician. In such reflections, the members of this Society will see the importance of their situation. Organized under the patronage of an enlightened legislature, they become the guardians of the public health, and may be enabled to overawe empiricism, and promote a rational and systematic method of managing diseases. While we bring to mind, that during the short period reviewed, many of our brethren have been attacked in such a manner as to suspend their labours, and remove them from the scene of action—that our friends and acquaintances have sometimes been caught in the rounds of morbid affection, of such a grade

Practice of
medicine no
nostrum.

as to baffle our art and mock our skill; but that our healths and lives are preserved, and that the prospect before us is, that by a humble and judicious exercise of the Æsculapian art, we may continue to be useful to our fellow-citizens; for which favours, “what shall we render as a thank-offering unto the GREAT FATHER AND REDEEMER OF MEN? Here utterance falters—here language fails!”——

“Come, then, expressive silence, muse His praise!”

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AN

ADDRESS,

DELIVERED BEFORE

THE DUTCHESS MEDICAL SOCIETY,

AT

THEIR ANNUAL MEETING

IN

NOVEMBER 1825.

THE DOCTORS' MEDICAL SOCIETY
ADDRESS

The following is a list of the members of the Society for the year 1888-89. The names are arranged in alphabetical order of surnames. The names of the members who have died since the last meeting are marked with a cross.

1. Dr. J. A. [Name] [Address]
2. Dr. J. B. [Name] [Address]
3. Dr. J. C. [Name] [Address]
4. Dr. J. D. [Name] [Address]
5. Dr. J. E. [Name] [Address]
6. Dr. J. F. [Name] [Address]
7. Dr. J. G. [Name] [Address]
8. Dr. J. H. [Name] [Address]
9. Dr. J. I. [Name] [Address]
10. Dr. J. K. [Name] [Address]
11. Dr. J. L. [Name] [Address]
12. Dr. J. M. [Name] [Address]
13. Dr. J. N. [Name] [Address]
14. Dr. J. O. [Name] [Address]
15. Dr. J. P. [Name] [Address]
16. Dr. J. Q. [Name] [Address]
17. Dr. J. R. [Name] [Address]
18. Dr. J. S. [Name] [Address]
19. Dr. J. T. [Name] [Address]
20. Dr. J. U. [Name] [Address]
21. Dr. J. V. [Name] [Address]
22. Dr. J. W. [Name] [Address]
23. Dr. J. X. [Name] [Address]
24. Dr. J. Y. [Name] [Address]
25. Dr. J. Z. [Name] [Address]

ADDRESS.

GENTLEMEN,

WHEN I had the honour, six years ago, of addressing you from this station, I improved that opportunity in laying before you an imperfect review of the diseases of Dutchess for the preceding ten years. And perhaps I cannot better discharge the duty which your laws (17) have at this time imposed upon me, than by taking a brief notice of those that have prevailed since, with a generalized account of what appears to be the best method of treatment. It is again to be remarked, that it is not the diseases that are occurring every day and every year, under almost all circumstances, that will here claim our attention; but to trace the most prominent symptoms of those of an epidemical nature, as they have arisen, and displayed their characteristic effects on the human system.

After the termination of the epidemic constitution of our climate, which had prevailed for a number of years, and been more or less

connected with the late military operations, or influenced by them, there was a period of very general health.

Dysentery
of 1820.

The year 1820 commenced under very favourable circumstances of exemption from general disease. A very few cases of phlegmasial affections marked the winter and vernal period. A few intermittents and mild remittents were the principal train of diseases of the first summer months. As the season advanced, the dysentery became epidemic: in some sections of the county it was attended with obstinate and alarming symptoms, and in many instances with fatality. The various ordinary derangements incident to this disease of the alimentary canal took place, which was frequently attended with considerable arterial action and fever. Bloody discharges from the bowels was almost an invariable symptom. The evacuations were sometimes scanty, attended with tenesmus; but frequently they were copious, particularly after cathartics were used, and they frequently had the appearance of thick, bloody water.

Treatment.

Treatment. In the early stage, particularly as the cold season approached, blood-letting in some cases was beneficial. This was best to be succeeded by emetics of ipecacuanha, or cathartics, of which calomel was a leading article, with something to aid its operation,

when it was very serviceable to give remedies to determine to the skin, and sheath the lining of the bowels. It was also found highly beneficial to give opiates occasionally, and particularly as an anodyne at night, in sufficient quantity to allay the pain and irritation. These remedies were to be followed by astringents, tonics, &c. as soon as the case would bear it. In several instances, as is perhaps too apt to be the case, time was lost by beginning with astringents too early, before the vascular excitement had been removed in the early stage. The fatal cases were about in proportion of one to twenty. (18)

A very successful method of treating dysentery, was communicated to me by Dr. Ford of South Carolina, which is used there with success among the blacks. It is by giving an infusion of ipecacuanha once in about six hours, so as to keep up a nausea, and occasionally vomit. Every year has produced a few sporadic cases of this disease: but since that time (viz. 1820), its occurrence has not been as frequent as during the past season. Succeeding the extreme heat, derangements of the alimentary canal became very common, exhibiting choleric and dysenteric symptoms. Among the variety of plans proposed and adopted for the cure of dysentery, a very soothing and successful one was pursued by a

Dr. Ford's
plan.

Dysentery
of 1825.

surgeon in General Pakenham's army, that was near New-Orleans in 1816. A plan somewhat similar has been used by some practitioners in this county with success. It consists in giving opiates, in sufficient quantity to allay the pain and irritation, and calomel, either combined or alternated with it, enough to open the bowels, aided by castor oil, or some laxative mucilages. To adapt this practice to our climate, it will be necessary frequently to precede its use by blood-letting or an emetic, or both. The success of this course was eminently exemplified in the case of General Lewis, in a violent attack of this disease on the 12th September last. He lost 24 ounces of blood, took opium enough to quiet the pain, and large doses of calomel, which was aided in its operation by castor oil. The cure was speedy.

Calomel and opium plan.

Blood-letting in dysentery.

Diseases of 1821.

In 1821, nothing peculiar marked the early part of this year. In some sections of the county, phlegmasial diseases prevailed to a moderate degree, particularly those of a peripneumonic type. They generally yielded to antiphlogistic remedies. It was a peripneumonic attack of this kind in May, that terminated the life of the first President of this Society, Dr. Samuel Bard. In passing this event, a short digression, it is presumed, will be excused, to cherish the memory of a patron and friend. As a physician, he had an active,

Dr. Bard's death.

discriminating mind and discerning judgment, well calculated to detect the intricate and obscure operations of morbid action, and to devise means to effect their removal. By his benevolent disposition, and perseverance in laudable undertakings, he perhaps did more for the advancement and cultivation of medical science than any of his cotemporary countrymen. Much is due to him for procuring the passage of the law by our Legislature, under the auspices of which we are this day assembled, and out of which has grown that advancing respectability of the medical character which, by the irradiating influence of science, has overawed, and almost obscured empiricism. (19) Those who had an opportunity of meeting him within these walls, will readily bring to mind our then flourishing situation, when we were stimulated by his example, and edified by his maxims and his addresses. Although for many years retired from the city and from active business, he was not withdrawn from professional usefulness or benevolent purposes. He constantly, when required, gave counsel to those around him; and among the poor, sought out cases of sickness and want, on which to bestow gratuitous services. His wife, who was first attacked with the same disease, was his last patient, and

he her last physician! He being soon attacked, was obliged to end his medical labours, and withdraw from her the day before she died—and in his turn became a patient. During his short illness, he displayed his usual vigour of mind and promptness of decision. He conversed with me and with his friends, with calmness, on the nature of his disease and the approach of death. More than once he expressed in substance a couplet that he had used on another occasion :

“ O God ! direct my erring mind to things above ;
Teach me to place my bliss in faith, and hope, and love !”

He dwelt on the importance of early subduing arterial action, and of preventing effusion in the lungs, which he anticipated would with him be the case. All he dreaded, he said, was the suffocating distress that that would give him. In the former opinion his anticipations were realised—in the latter they were not. Although effusion took place, he became calm, and died in full assurance of receiving a Christian's reward for a life well spent.

Every year, for several years, our county has been more or less visited with intermittent and remittent fevers, which in the autumn have assumed the bilious character. The parts most subject to these diseases, are the towns along the river, and some other sections in

the vicinity of ponds, creeks, and marshy exposures.

The fevers of a remittent character among us, generally, exhibit symptoms, in the early stage, of increased arterial action or congestion in the system, more or less attended with symptoms of a bilious (20) affection; though the latter are not so prominent as they have been at former periods, and those of the present year have generally been attended with more decided symptoms of fiery, increased excitement or depression.

Fevers of
1825.

Whether, in some sections of the county, fevers do occur that partake of the typhoid diathesis at the commencement or not, appears to be a question not wholly settled. But as far as my observation has extended,—and I have taken considerable pains to investigate the subject,—I am induced to believe they are very rare. In making this remark, I am aware that in the progress and treatment, a variety of circumstances may concur to give them a protracted form. Unless in the commencement arterial action is restrained, or congestion and the causes of depression removed, or the morbid action transferred to the alimentary canal, and the feculent matter eliminated from the system, a train of tedious, perplexing, and typhoid symptoms may supervene.

The numerous modes of curing intermittent fevers, are too well known to be detailed here. It may, however, be fairly observed, that those of this year have required more evacuations and less tonics than they did formerly. (21)

In the treatment of the remittent or bilious remittent fevers, emetics are frequently indicated. The best plan in the progress, seems to be that of purging, somewhat on the plan of Hamilton, by calomel, aided by other laxative articles, gently and perseveringly pursued; and by sudorifics, with, occasionally, opiates, (22) large enough to quiet all pain and the commotion raised in the system; which plan I formerly detailed in the treatment of the remittent and bilious fevers of 1810. This course, with occasional blood-letting, in the early stage of the case, can be recommended from long and successful use. By emptying the blood-vessels and evacuating the system, we not only remove the tension and disposition to increased arterial action, but place the disease more under the control of remedies, and often prevent the occurrence of those obstinate and difficult symptoms that otherwise may supervene. In those cases that assume the typhoid character, the indications of cure appear to be best answered by frequently evacuating the stomach and bowels, particularly in the early

Typhoid
cases.
Treatment.

stage, and arousing them to action; then attempting to equalize the circulation, by promoting the action of the skin, and in the progress to support the strength. The method by purgatives, combined with, or followed by calomel, opium, and sudorifics, appears best to answer those indications. This course is essentially pursued by Dr. Miner, in his treatment of the typhoid diseases of Connecticut. But the nature of typhus, or what is by Armstrong called congestive or inflammatory typhus, is by that author ably investigated, and the general use of evacuant remedies clearly detailed.

In those cases when the proper period has arrived for giving calomel, with an intention of having it enter the system, it is well to exhibit it in sufficient quantities to operate on the bowels.

I believe it may be considered that mercurials soonest enter the system when they produce a laxative effect, by which the lacteal absorbents are aroused to action, to take them up: whereas, when the action of the bowels is not increased, the absorbents act sluggishly, and the mercurials may lie dormant in the system. It is probably on this principle, that cathartic remedies, by brushing the mucous crudities from the mouths of those absorbents, and stimulating them to action, to take up nu-

Bowels to be acted on, to induce a mercurial action.

trititious matter, frequently become the best stimulants used. Hence, after the disease is broken up, instead of giving cathartics, to stop or carry off a salivation, is it not better to cease giving mercurials and omit cathartics, and let the bowels become inactive; and allay the irritation of the system by opium, and the use of cold gargles?

Mercurial
sore mouth
treated.

The great perplexity in managing a mercurial sore mouth, in the old common way, connected with the frequent irritability of the system, and often dissatisfied looks of the patient, will, in a great measure, be obviated by this course. When the state of the system will bear it, a free exhibition of wine will prove a great auxiliary to this treatment.

Whether it is that, by taking off excitement, or removing congestion, in the early stage of disease, or some other circumstance not now to be inquired into, when these remittent diseases have been treated upon those principles, I have not observed an occasion to prescribe for a typhoid, or a long protracted case.

It may be considered an improvement in the art, that the evacuating method of treating fevers in the early stage, is gaining in fashion, and becoming a substitute for the tedious and protracted one of relying upon sudorifics, mercurializing and alexipharmics.

With a very few exceptions, I have not, for a number of years, until this fall, observed those cases of fever that, in the early stage, have exhibited the peculiar, small, soft, obscure pulse, which I have attempted to describe, as taking place in the epidemic of 1812; since which a number have occurred. The attack of disease, in some cases, is rather mild; perhaps the case is some days in forming; though in others it comes on quickly. Some complain of very little or no pain, others of considerable: the head is generally affected, producing dull heaviness, and a sleepy dulness of the eyes. Some have been attended with insidious, others with severe peripneumonic symptoms. The skin is very dry and husky; tongue not much furred, but of a fiery red appearance; bowels commonly torpid; discharges of blood from the nose have occurred in several cases. I believe attempts have been made to relieve this state of disease by relying upon alexipharmic, sweating means, mercurializing, &c. which will sometimes succeed, but often fail. When this plan finally succeeds, it is generally after a long, tedious, protracted illness. The patient is affected with a black tongue, a black scurf on the teeth, delirium, nervous irritation, and a train of those symptoms called *typhus*.

Soft or compressible pulse of 1825.

Those cases are beneficially treated by one or two bleedings early, and these followed by remedies that produce evacuations from the stomach and bowels, and in some cases the warm bath. Although in some instances I have bled largely, which corresponds with Armstrong's method of treatment, yet I here take occasion again to remark, as is stated in the treatment of the disease of 1812 and 1813, if there are well-founded anticipations of debility ensuing, the bleedings had better be small, and repeated, and those followed by a course of cathartics, which gives the vessels an opportunity to remove the congestion, and the system a chance to re-act. The blood in this state of disease is very dark, thick, and heavy; whereas in the advanced state, when there is real typhoid action, or debility from abstraction, the blood is said to be dark, but thin and light. I have not observed it to form a sizzly coat, in either case. In the first, as it flows, it becomes more florid, and more disposed to exhibit signs of inflammatory action.

Appearances of the blood.

After this, calomel, opium, and sudorifics may usefully be exhibited. Under this treatment the pulse rises and becomes more free, and by this course, judiciously pursued, the disease generally goes off in a few days.

As this is an important state of disorder, for which we occasionally have to prescribe, it is trusted no excuse will be required for introducing an abstract account of two cases, to show the nature of it more at large.

October 20th. A. B., aged 10 years, after several days of slight indisposition, attended with a want of activity and languor, had chills and rigors for a long time, followed by mild fever, slight pain in the chest, skin dry, very little heated, followed by great lassitude, fiery redness of the tongue, which was slightly furred, pulse small, soft and irregular; had a considerable discharge of blood from the nose, during the night previous. She took an emetic, which was followed by cathartic remedies.

21st. The medicine operated as desired. Symptoms very little relieved. Took eight ounces of blood from the arm, which was dark and thick. Repeated the cathartic remedies. Directed to take freely of water and other cold drinks, and a large anodyne after the free operation of the cathartics.

22nd. Medicine produced free and copious evacuations from the bowels. A copious sweating succeeded. Pulse more free and full. She now commenced the use of calomel, opium, and sudorifics, and continued the drinks.

25th. The disease nearly left her, but in a state considerably debilitated; when she commenced the use of wine and strengthening remedies; from which time she gradually recovered.

The following case is of recent occurrence, in a gentleman who had experienced considerable fatigue at a meeting of the Alumni of Columbia College.

May 20th. W. B., aged 48, after some slight indisposition from a catarrhal affection, was seized with lassitude, attended by moderate rigors, which continued ten or twelve hours. These symptoms were succeeded by a slight fever.

22d. Pulse soft and small; skin dry, attended with an inactive feel; tongue fiery red on the edges, and very slightly furred in the middle. Countenance dull and heavy. Says he has no pain, but complains of a tired, uneasy, horrid feeling. Gave him an emetic, and followed it by 10 grains of calomel, and a dose of sulphate of magnesia.

23d. The emetic operated well. Bowels very little moved. The symptoms of yesterday increased. He was bled twelve ounces. Blood very dark and heavy. Directed calomel and jalap, each five grains, once in four hours, and to drink freely of cold water and whey.

24th. Medicine operated very slightly. Has experienced very little relief. Pulse more full and tense. Bled him one pound. Blood dark and thick, but became more florid while running. Continued the cathartic powders with an infusion of senna and manna.

25th. Medicine operated freely as a cathartic. Symptoms all apparently relieved. Took calomel, opium, and sudorifics.

26th. Some fever arose towards night, which rendered him rather restless. Pulse very little excited. Tongue somewhat furred. Continued the remedies.

28th. Symptoms all relieved. From this time he gradually recovered.

It is an observation long ago made, that diseases perform revolutions by forming groups or peculiar trains of diseased action, which appear, and exist for a length of time, producing their devastating effects, and again disappear, and are no more heard of perhaps for years. This remark will be, in some measure, exemplified by tracing the succession of diseases of a country for a series of years, but more particularly in that of the small pox. After the introduction of the kine pox, (23) the small pox gradually diminished, and became almost extinct; till in July 1808, a pauper was introduced into the New-York Alms House,

Small pox.

who soon broke out with small pox. It spread rapidly through the house, where about seventy cases occurred in the natural way, one in nine of which was fatal. Considering the close confined situation and the heat of summer in which it prevailed, it was thought to be attended with not very great mortality. Some of the nurses had what was termed nurse pox, which differed very little, or perhaps none, from what is now termed varioloid. From this, the disease spread northerly and extensively through the state. Its progress was such, that it prevailed and spread widely in this county in the winter following of 1808-9, exciting much anxiety, and being attended in many cases with mortality. By the prompt and general use of kine pox, much of its influence was resisted. From the use of kine pox, and probably in some measure from the subsiding or passing by of the atmospheric predisposition to produce small pox, the disease disappeared in the spring of 1809. From this period we hear but little of the existence of small pox, till in 1821-22, when it again made its appearance in an epidemic form, in Philadelphia and some of the southern cities, and subsequently in New-York. This was accompanied by a disease of much more general and extended influence, though milder in degree,

producing very similar effects, particularly in the early stage: it was denominated the *varioid*.

There seemed to be very strong atmospheric predisposition to produce those diseases, so that cases became very numerous, and appeared almost to overcome the influence of kine pox in shielding the system from their effects. From thence these complaints made their appearance in this county.

In December 1823, the small pox was introduced from one source, and the varioid from another. Of the former several cases occurred, but the latter were much the most numerous, being produced by both diseases. From this introduction of small pox there was no fatal case. Again in May 1824, two very severe cases of small pox occurred in Hyde Park, both of which terminated favourably. From these a number of cases of varioid proceeded. Again in the autumn, the small pox appeared in Red Hook, and some cases of varioid in Pleasant Valley. In Red Hook these diseases became epidemic, and several cases of small pox terminated fatally. From this place those diseases spread east, into Pine Plains; north-east, around to Stanford, Washington, Pleasant Valley, and Poughkeepsie, producing some cases of fatality in their progress. In

1823. Varioid and small pox.

Small pox
of 1825.

Varioloid
produces
small pox

August 1825, the varioloid was again introduced into Hyde-Park, by a young lady who had been in company with a varioloid patient in the city of New-York. From her a sister, a young child, who had not been vaccinated, took the small pox. It had a very thick, full eruption, and went through all the regular stages of small pox. From each of these instances a number of cases of varioloid were produced. These diseases wore the decided inflammatory character, and required the antiphlogistic treatment, modified by the peculiarity of the disorder and state of the case.

An abstract from remarks made on the disease as it prevailed in the Hospital in 1808, will very conclusively show what was the proper course of treatment, as it prevailed in our county. In the first cases, the fever partook much of the inflammatory type. The patient bore depletion and the antiphlogistic treatment very well, which was attended with evident advantage. If the pustules did not fill well, a cathartic generally promoted their filling. The secondary fever was inflammatory, and was relieved by cathartic and refrigerent means. During its prevalence, at about the twentieth case, the disease in some measure changed its type, and debility supervened after the turn of the pock, and the patient required

stimulants. In some of those cases Dr. Hosack directed the warm bath; to which was added a decoction of bark and Castile soap, which appeared to be an important remedy in restraining the septic tendency, and saving the lives of some that used it.

The appearance of the varioloid in those subjects who had had the kine pox, seemed at first to shake the public faith in favour of that protecting disease. But when it was observed that those who had had the small pox, were equally or more subject to the varioloid than those who had had the kine pox, and that the varioloid was a mild disorder, the reputation of the kine pox again resumed its former station, and has proved itself of as much importance in protecting the system from the influence of small pox as it was formerly supposed to be. Among the hundreds vaccinated in the county, there has been no well-attested instance, in which the kine pox had been genuine, that the small pox has supervened. Among the various subjects of medical investigation which have lately occupied attention, none, perhaps, is more intricate and mysterious than the various operations and connexions of small pox, varioloid, and kine pox. Whether they are distinct diseases, or mere modifications of the same virus, appears

Kine pox
prevents
small pox.

to be a question yet to be discussed. It is attended with considerable difficulty in some cases to determine the line of distinction between small pox and varioloid, though in most cases it is, however, easily ascertained.

Varioloid,
its charac-
ter.

From the writings of others, and from my own observation, I can state a fair character of varioloid to be, more or less indisposition, attended with pain in different parts, and frequently with considerable fever. This is followed by an eruption, generally scattered, though sometimes very thick, so as to be confluent. The pustules are small, and not generally attended with the circular inflammation of small pox: they go on increasing from three to seven days, and have a peculiar horny prominent top. Many of them fill with a watery matter. Before the ninth day they generally recede, and entirely return into the skin, or go off in branny scales. It is not commonly followed by secondary fever, nor has it produced any death in the county. Whereas in small pox, the eruptions appear, and continue enlarging beyond the ninth day, even to the sixteenth, and then fill with pus. The pustules dry into scabs, and peel off, followed by secondary fever, &c.

Opinions held at present respecting those diseases, as established by facts and observa-

tion, appear to warrant the following conclusions :

1st. That varioloid will produce varioloid.

2d. That in a subject that has not had kine pox or small pox, varioloid will produce small pox.

3d. That vaccination, in most or all cases, is a preventive of small pox ; or so modifies the access of small pox, as to take away all danger of fatality.

4th. That varioloid will attack after small pox or kine pox ; but is most severe after small pox. It is stated in an essay on this subject by Dr. Bell, that a patient may have kine pox four times, and that the virus produces less and less effect on the system, till at the fifth time it produces none at all ; when the patient becomes saturated, and resists the influence of both small pox and varioloid. The small pox character of disease seems to have run its course ; and that and the varioloid have disappeared, and we hear no more of them.

The measles have prevailed more or less every year under consideration, in some districts of our county, to a moderate extent. But in the spring of 1824 they became a general epidemic, and spread nearly, or all over the county. In many instances they were attended

Measles of
1824.

with fatality. The diathesis of the disease was of a high inflammatory character, although great numbers of cases went safely through without medical aid. But those that required medical treatment, succeeded best by anti-phlogistic means; and frequently the case was benefited by copious bleeding. When the disease terminated fatally, it was commonly by a secession of the eruption, and a peripneumonic attack. The term *black measles*, which it sometimes obtained, appeared to be a gangrenous state consequent upon fullness and inflammatory action. (24)

Peripneumonia of 1826.

The disease, which is more general than any other among us—which terminates more lives than any or all others to which our community is subject—which prevails every year, and at every season of the year, but more generally in cold weather,—is the different grades of inflammation of the chest, arranged by nosologists under the various terms of bronchitis, influenza, peripneumonia, pleurisy, pneumoniacula, &c.

Inflammatory type.

When this character of disease becomes epidemic, it produces the most general influence on the human system of any variety of morbid excitement. It may prevail under a sthenic or an asthenic diathesis; but with very few exceptions, in our climate, it partakes of the inflammatory character. It has been three

times epidemic within our time. In 1807, the influenza, with peripneumonia, spread through the county, and extended itself over the United States. It was so universal in its operation, that all, or nearly all, felt its influence. The late Dr. Wheeler of Red Hook, observed that he did not know a person in that town who had escaped it. There are many interesting facts on this disorder, recorded in the New-York Medical Repository, Philadelphia Medical Museum, by Coxe, and the American Medical and Philosophical Register, edited by Dr. Hosack and Dr. Francis.

The peripneumonia, with bilious disease under different names and modifications, again prevailed from 1812 to 1814, and continued sporadically to 1816. The influenza and peripneumonia again prevailed the last spring. Besides those wide-extended epidemics, these diseases are every year more or less prevalent, and have their annual returns during the vernal season.

There is no class of diseases that exercises the skill and ingenuity of the physician more than this, and particularly that of the peripneumonic type; none in which there is so much danger of mistaking the present diathesis, by taking congestion or suppressed inflammation for a state of debility or incipient

Prevalence
of peripneu-
monia, &c.
from 1812 to
1816.

typhoid action; or none in which the inexperienced in the profession would be more likely to attempt to remove oppression and apparent debility by stimulant means, when remedies of a different kind would be most proper. (25)

Indications
of cure.

The general indications of cure, are to restrain arterial action; to remove congestion of blood in the pulmonary vessels, with its attendant inflammation; to prevent or obviate the effects of a secretion of mucus or of effusion in the lungs; and to support the strength. It will readily occur, that these indications are to be answered by depletory, antiphlogistic means. If the disease is not arrested in the early stage, effusion or suffocation takes place, or a protracted or typhoid state frequently supervenes. For a more particular detail of the plan of managing these diseases, permit me, besides the systematic writers, to refer for principles to the works of Sydenham and Rush.

Disease of
1825 very
inflammatory.

The disease that prevailed last spring, was of a very active phlegmasial type. As is observed by John Bell, "the lungs were frequently stuffed and crammed with blood." When exhibiting a small pulse, prostration of strength, and a pallid countenance, there was the most urgent call for bleeding. And I have not met with a disease where the patient re-

Treatment.

quired more bleeding, or in which he bore it better. Although some cases recovered without the use of the lancet, yet in most cases of much activity it was used with advantage, and frequently it was necessary to be several times repeated. (26)

It has been considered that in many instances this disease is connected with a typhoid diathesis, or that there is a great proneness to that state of the system. Hence we hear of pneumonia typhoides, of typhus supervening, and that the patient may be run down if depletion is used, &c. As far as my observation has extended, I have not observed such a state.

In addition to the testimony of a number of my medical brethren in favour of the sthenic nature of those diseases, their inflammatory character will appear, when it is observed, that the antiphlogistic depletory course of treatment was uniformly pursued, and that out of the numerous cases that passed under my prescription, there was but one death (a child), and one case which terminated in consumption. (27) The patient has since died. There was no case that exhibited a black tongue, or in which a typhoid state supervened.

Result of
cases.

Whatever the diathesis of disease may be, as we leave the banks of the Hudson and approach the Connecticut river, I have not been

able fully to determine. But, as it relates to our county, it will prove a dangerous delusion to adopt the position of Dr. Miner, that the inflammatory nature of disease has entirely left our country, and that "all diseases partake of a typhoid character." Numerous facts are not wanting to show the generally decided inflammatory or congestive nature of our diseases. (28)

Child-bed
fever.

The last disease, though in importance not the least, (for an account of which you will be detained,) is one of a peculiar nature. It is confined to the female sex, and, more than most others, nearly connected with the procreation of our species: it is the puerperal fever. (29) It has not fallen to our lot to have this disease prevail epidemically among us; but it occasionally occurs in all places, and latterly it has appeared in our county much oftener than formerly; so much so, that in some districts it has been very frequent; and too true it is to evade, these occurrences have been attended with great fatality. For the character and description of this disease, reference is to be had to systematic writers, as it has been observed by one, "in this almost all agree." During my practice, I have had a few mild sporadic cases of this affection, such I believe as generally occur in the country. They have yielded to

moderate bleeding, purging, sudorifics, anodynes, &c. I have been well informed, that in the southern parts of the county it has lately prevailed with a good deal of frequency and much fatality. What proportion have been cured or died, or what mode of treatment has been pursued, I have been unable to ascertain. Since the beginning of this year it has appeared, and exhibited almost an epidemic character near my residence, attended with such violence and pain as is attributed to the most malignant cases.

It is considered an active inflammatory disease by Denman, Gordon, Hey, and Armstrong, of Europe; by James, Bard, Hosack, and Francis, of our own country. Burns and some others have their doubts on that subject; out of which probably proceeds Burns' vacillating mode of treatment, when he says, "I find it much easier to say what remedies have failed, than what have done good." He evidently labours under a mind of typhoid association, and is one of those who furnish the disastrous reports of those who consider the disease of a typhoid character. At the present day, I believe, and in our climate especially, there is, or ought to be, but little diversity of opinion on that subject. By taking a view of what may be considered the true pathology of

Diathesis.

Pathology.

the disease, it will farther exhibit its inflammatory nature. The uterus and surrounding vessels after labour, are in a lax, dilated, and irritable state; and this may not be improperly termed a state of predisposing debility. This being the state of the parts, the blood flows into them in inordinate quantities, distending and cramming them, producing an inflammation somewhat *sui generis*, which readily extends to the surrounding parts. It is nearly allied in its nature to violent peripneumonia in its suffocating effects on the lungs. From this may proceed the great pain and sudden distension of the abdomen: and the disease produces similar fatal gangrenous results, unless the vessels are unloaded, and the circulation equalized at the very onset.

It ought not to detract from the reputation of a practitioner to lose his patient in this disease, after the avowal of such men as Burns, that he could say what had failed, rather than what had cured; of Bard, who declared it to be a most fatal disorder; of William Hunter, who used bleeding and cathartics in one woman, and she died—sudorifics and fomentations in another, and she died; who tried the stimulant plan in another, and she died: in short, all plans failed: or of a Professor in Edinburgh, who, as we are informed, lately

told his class that he considered it an incurable disease.

Several valuable treatises have lately appeared on the subject of puerperal fever; but none of them has so forcibly recommended the use of the lancet, as that by Mr. Hey of Leeds. "I have employed blood-letting in this disease, (says he,) to a greater extent than any other practitioner with whose writings I am acquainted; and have hazarded the opinion, that the quantity of blood is scarcely to be limited, but by the removal or considerable diminution of the pain: but let it be recollected, as a necessary appendage to this opinion, that the period for bleeding is confined to an early, though not a very definite, stage of the disease."

Some writers, more especially those of our own country, have warmly recommended the liberal use of cathartic medicines; and feel themselves fortified in this practice, by reflecting on the advantages which so generally arise from an open state of the bowels during the advanced period of pregnancy, and immediately subsequent to labour. In the very fatal fever, puerperal epidemic of Aberdeen, we are told by Dr. Gordon, that of those who were freely purged the day after delivery, only one died of puerperal fever. That the puer-

peral fever may at times become contagious, when its form is that of typhus, is a position countenanced by the recent remarks of several able clinical observers. "The contagious character of the puerperal fever, (says Dr. Francis, in his Notes on Denman,) has been denied by some writers, while others have represented it to be so in an eminent degree. The records of the Lying-in Hospital of Great Britain confirm this latter opinion. While I visited the Royal Infirmary of Edinburgh in 1816, Dr. Duncan, jun. informed me that six cases had at that time occurred, in three of which the disease was satisfactorily ascribed to attendance on the puerperal women. The contagion was communicated by the nurses." These facts are confirmatory of the views and illustrations of Dr. Gordon. Others might be cited from clinical observers.

Dr. Francis has recently stated to me, that four cases of puerperal fever occurred in the city of New-York during the spring of 1825, which were strongly marked by all the characteristics of malignant typhus. Dr. Hosack was informed, upon very respectable authority, that it prevailed in Elizabeth Town and its neighbourhood, in the state of New-Jersey, several years ago, and proved fatal to a number of lying-in women. It is almost superfluous

to add, that these two forms of the disorder require different modes of treatment.

Yet, notwithstanding these few special instances of the puerperal fever assuming a typhoid character, my original position, I conceive, holds good,—that the complaint may be classed among the most strikingly inflammatory. Exceptions can only confirm the general rule. Moreover, we all know that there is scarcely a disorder of the system that may not, under certain circumstances, take on the typhoid aspect.

In the treatment, it is observed by Bard, that “all practical men are agreed, that early and free bleeding, moderate purging, &c. are proper.” Little or nothing can be done with probable success after collapse supervenes.

It is observed by Gordon and some others, that nearly every patient died who was not bled freely in the beginning: and it appears in general, that where depletion has been copiously used, the patient recovers most readily. If the semblance of debility and prostration, that is frequently attendant upon the ushering in of the disease, should deter from the use of the lancet, it will be found a fatal delusion. In the language of Dr. Rush on another occasion, the disease should be taken out of the hands

of nature, and the system held under medical control.

Treatment.

After bleeding freely, it is recommended to give large doses of calomel, and to aid its operation by some other cathartic and nauseating medicines, which are to be repeated, if necessary. This course has frequently succeeded; but in many instances it has failed, either from not commencing sufficiently early, or from a want of courage in the first stage to carry the remedies to the extent required; or some other cause not easily ascertained. But a symptom which proves very aggravating, and which it is a great desideratum to overcome, is the extreme pain attending the complaint.

With a view of relieving the pain, restraining morbid irritation, and equalizing the circulation, I would, with due diffidence, propose the following plan: Bleed largely at once, or if practicable, take blood enough within the first twenty-four hours. Circumstances must govern as to the quantity to be taken. From twenty to sixty ounces during the time above mentioned, may be required. After the first bleeding give calomel, ipecacuanha, and opium.(30) Let there be opium enough given to quiet all pain; say three grains at first, and one or two to be repeated every three hours till it has that effect; and ipecacuanha and

calomel enough to nauseate, and to insure a cathartic operation in due time, with the aid of some laxatives. In the progress, strong sinapisms should be applied to the feet, and alkaline fomentations to the abdomen and pubes. After the operation of the first cathartics, a large blister should be applied to the abdomen.

It is of much consequence to sooth the distressing anguish and anxiety of the patient, and friends attending these cases. Pain, it is known, has a direct tendency to irritate the heart and arteries, and thus will increase or prolong inflammation. By giving opium enough, it operates as a sedative, and in abdominal disease, aids more than retards the operation of cathartics. Within twenty-four hours, as I have found to occur, the cathartics produced a copious operation: after which the opium ought to be repeated, so as to allay the pain during the progress of the cure. (31) In the progress of the cure, sometimes heat of skin, fever, and restlessness come on, even after the operation of the cathartics, when the most urgent symptoms are relieved; at which time much benefit is derived from exhibiting small doses of antimonials, at proper intervals.

In this disease, as in some others, (32) much depends on an exact timing of remedies. The large quantities of blood drawn, without being

Bleed before giving opium.

succeeded by opium, might, in many instances, prove injurious; and to give very large quantities of opium before the tension of the system (33) is taken off, and relaxation produced by bleeding, would prove equally unfavourable. In this situation the system, if I may use the term, is buoyed up by opium, and irritability allayed, while the cathartics perform their office, and the circulation becomes equalized.

Of the number of cases that have occurred in my vicinity, three have proved fatal; two of which I prescribed for, one I did not. All the others which have come under my care, and in which the plan of treatment here proposed was pursued, those patients have all recovered.

The two cases which I prescribed for, that terminated fatally, the patients were bled largely, cathartics and sudorifics were freely given, which produced a free, desirable effect, and blisters were applied. In one case, a large anodyne procured a good night's rest; after which all medicines were rejected: the pain through the small of the back and uterine region was very severe, and continued to the last.

An abstract of some cases, taken from my case-book, will give a more correct idea of the treatment and the result.

Mrs. L——, after a severe labour, in about Cases: forty-eight hours from the delivery was violently attacked. I first saw her about eight hours after, which was after 12 A.M. on the 3d of June. She was immediately bled forty ounces; commenced taking calomel and jalap, ipecacuanha, and opium, the doses of which were repeated at proper intervals; so that in less than twenty-four hours she took thirty grs. of calomel, ten of jalap, and eight grs. each of opium and ipecacuanha. In a short time after beginning with the opium the pain abated, and the tension of the abdomen subsided. In about twenty-four hours, sweating and the purgative effect commenced. Within twelve hours she had fifteen evacuations, which were attended with severe pain. During this time she took seventy drops of laudanum, twenty grains of Dover's powder, six grains of ipecacuanha, and injections with two drachms of laudanum. A large blister was applied to the abdomen, which again entirely relieved the pain, and a copious sweating continued. On the 4th, the pulse became sharp and tense, the skin dry, and the pain increased. She was bled six ounces, and the cathartic repeated during the night. She became easy, and perspired freely. On the 5th, and during the night, rested well. The puerperal disease was entirely gone: she

had only mercurial disease and debility, from which she gradually recovered.

Mrs. N——, aged 28, had a tedious, protracted labour, which was attended with such violent pain in the right side, and through the region of the diaphragm, as to require free bleedings and large anodynes before delivery took place, which was on the 17th of August. She was comfortable, and even cheerful, to the 19th, when she was violently attacked, so much so, that it was thought she could not have lived many hours. The case was ushered in with severe chills, and violent pain in the right side, uterine region, and small of the back; the pulse was small and tense, tongue covered with a white fur; extreme anxiety in the countenance, and great difficulty of breathing: there was a universal soreness, and the system was very irritable. She was then bled again. In all, she lost fifty-two ounces of blood. She then began taking calomel, opium, and ipecacuanha. In less than twenty-four hours she took ten grains of opium, forty of calomel, and four of ipecacuanha. She also took an infusion of senna, and had a blister applied to the abdomen, which course nearly suspended the disease. A free perspiration came on. In about eighteen hours the purging commenced:

numerous free evacuations ensued. The pain again came on, and was again quieted by opiates. In about forty-eight hours from the attack, the disease seemed entirely removed. She had no mercurial affection of the mouth, and recovered strength rapidly.

Mrs. B——, aged 24, after a labour in no wise peculiar, was delivered on the 30th of September.

October 2nd. Forty-eight hours after delivery, she was attacked with severe pain in the head, small of the back, and sacrum, together with general soreness and tension of the abdomen. The pain through the uterine region was also particularly severe. The tongue was slightly furred, white in the middle, and fiery red on the edges: the skin was very little heated, rather inclining to clamminess. Her breathing was laboured, somewhat resembling that of a lady in tight-laced corsets, seeming to exert the diaphragm only. (33) The secretion of milk was partially suspended, and the lochia totally suppressed. She was bled at 9 o'clock A. M. twenty ounces, and commenced taking five grains of calomel, one of opium, and two of ipecacuanha, to be repeated every three hours. Warm alkaline fomentations were ap-

plied to the abdomen. The bleeding was repeated to sixteen ounces in ten hours.

9 o'clock P. M. Some nausea, and a little vomiting induced. The breathing rather improved; pain considerably abated; the pulse rounder and softer. The lochial discharge has appeared: she sweats copiously. Omitted the fomentation, and applied a blister to the abdomen.

Oct. 3d. The medicine began to purge at 10 this morning; before which the pulse became quicker (120 in a minute) and smaller, and the tongue more furred.

10 P. M. The pulse has fallen to 95, and become more natural; the heat and fever considerably abated. She sweat gently; had some stranguary: very little pain, except from the cathartic effect of the medicine. The calomel and ipecacuanha were discontinued, and two grains of opium given.

Oct. 4th. 7 A. M. During the night, she has had several stools, attended with some pain. Sweated freely the whole time, and obtained some easy and natural sleep. The scurf mostly removed from the tongue. She took twenty drops each of laudanum and tincture of kino after each stool.

10 P. M. During the day, took a gill of wine. After it she had a little fever, and the

pulse became more tense. The wine was omitted, and simple nourishment recommended. At evening, fifty drops of laudanum were given as an anodyne, and the laudanum and kino mixture continued as before.

Oct. 5th. Rested well last night, and appears very tranquil: has strength to assist herself quite well; and seems free of disease.

6th. Convalescent. (34)

REMARKS. These patients, with no stimulant except nourishment, got rid of the disease, and gained strength rapidly. The first patient had a mercurial sore mouth; the others were not affected in that way. In the third case, the small quantity of wine given aggravated the symptoms. In this case, during three days she lost thirty-six ounces of blood; took forty grs. of calomel, twelve grs. of ipecacuanha, ten grs. of opium, and three hundred drops of laudanum. In nineteen hours the purging commenced, and continued rather copiously. The irritability and pain was allayed by opium, and the too free purging restrained by that and kino.

Whether the excellent plans of treatment, by bleeding and purging, among others, recommended by Mr. Gordon and Mr. Hey, would

have succeeded in those cases, under any modification, is difficult to determine: from the result of my two first cases, it would seem somewhat doubtful. It is probable there was more pain and irritability attending these cases, than those described by them. But the severe pain and anxiety present in all my cases, and particularly in the late stage of those that terminated fatally, is an unpleasant symptom, that I know of no remedy to counteract, except opium. This is a symptom that Mr. Hey admits was troublesome, even in his successful cases. Without presuming to draw a comparison between any former recommended plan of treatment, and the one here proposed in favour of this, it may be said, that by this the disease is generally cut short in two or three days; the patient is secured from pain, and lies easy, and the system preserved from the deranging effects of long-continued morbid action.

Dr. Gordon seems to be of opinion that purging, and a free loss of blood, during, or directly after delivery, prevents the attack of this disease. Mr. Hey did not find that to be the case with his patients, for several of them that had lost much blood, had an attack afterwards—which corresponds with my observa-

tions. In my first two, and fatal cases, cathartics were given soon after delivery, so as to produce a full effect. In the second successful one, here reported, the patient lost about forty ounces of blood from the arm, before delivery; and after delivery, a copious flooding came on, so as to require very active means to check it: notwithstanding which, in about forty-eight hours the puerperal disease came on, as noted in the case.(35)

Before so enlightened an audience, it is presumed no apology will be required to avoid the imputation of temerity in the use of remedies in some of our violent diseases; when it is recollected, that the doses of medicines proper in a state of health, or in a small remove from it, bear but little proportion to what is required to ward off from the system a violent attack of disease, and preserve it from the sudden derangements of excessive morbid action. In medicine, that alone is the proper dose which answers the indication. And while we are exercising the all-important duties of our profession, may our leading emulation be to sustain principles in our minds, and command remedies in our hands, ready to control the various and violent grades of diseased action to which our fellow-creatures are subjected.

those in my first and final cases, calling
 the note given soon after delivery, so as to
 produce a full effect. In the second case
 for one, here reported, the patient lost about
 forty ounces of blood from the nose before
 delivery; and after delivery, a copious bleed-
 ing came on, so as to require very active means
 to arrest it: notwithstanding which, in about
 forty-eight hours, the purgative disease came
 on as noted in the case (2).

Therefore, it might be an advantage, if it were
 found expedient, to be required to avoid
 the repetition of delivery in the case of some
 cases in which the uterine disease, when it is
 restricted, that the dose of medicine proper
 is a dose to induce a full evacuation of the
 uterus, and the proportion to what is required
 to ward off from the system a violent attack
 of disease, and prevent it from the sudden
 development of a serious morbid action. In
 medicine, that alone is the proper dose which
 answers the indication. And while we are
 exercising the utmost vigilance of our pro-
 fession, and our leading complaint, in order
 to preserve in our hands, and command
 ourselves in our hands, ready to control the
 various and violent grades of disease, in those
 to which our fellow-practitioners are subjected.

ON
CARIES
OF
THE JAWS OF CHILDREN:
READ
BEFORE THE MEDICO-CHIRURGICAL SOCIETY
OF THE
University of New-York,
IN 1808.

BY THE AUTHOR,
While Resident Physician of the New-York Almshouse.

ON

THE LAWS OF CHILDREN

BY THE MEDICO-CHIRURGICAL SOCIETY

OF LONDON

BY THE AUTHOR

W. H. LINDSAY, F.R.C.S., F.R.C.P., F.R.S.

PREFACE.

SINCE the following little Essay was written, it seems the disease treated of, is not confined to the Hospitals of New-York; but a similar one has occurred in our county.

The beneficial tendency of investigations of this kind, especially of the diseases of our own county, is the only apology that will be offered for its publication. The cases communicated to the author, by so worthy a practitioner as Dr. BEERS, tend very much to show the nature and extent of this class of disease: and if the whole, taken together, leads to a successful method of stopping the progress of the disorder, or of curing similar cases, our labours will be amply compensated.

I have added to the present discourse, a letter on this disorder, by Dr. FRANCIS, Professor in the College of Physicians and Surgeons, New-York. This communication shows sufficiently well that this affection is not so rarely to be seen as has been generally supposed, and adds to existing facts on the subject. Several of my inquiries in relation to this formidable complaint, have been answered by this communication from Dr. FRANCIS.

ON

CARIES

OF

THE JAWS OF CHILDREN.

GENTLEMEN,

IN compliance with the regulations of this Society, it becomes my duty, in rotation, to read a paper on some medical subject. I have undertaken the task of offering some remarks on a disease which has come within my observation within a few months past, a description of which I have not met with in any author, and which I shall term a *Caries of the Jaws of Children*.

Disease of
the jaw-
bones.

This disease seems to be somewhat peculiar to the Almshouse of this city. I have formed this opinion, from never having been able to hear of a case out of it; and am confirmed in the remark, from the like observations of several respectable medical characters, who have

seen the disease in question.(36) It has been known only to attack children under the age of twelve years, and generally over the age of three years.

The first symptoms are commonly a slight swelling and pain in some particular part of the jaw, and generally in the upper one, as the under one is seldom affected. The child is otherwise in good health, and takes its usual exercises. One, two, three, or four teeth become loose, according to the extent of the disease, and begin to turn black about the cervix: the gums are detached from them, and evidently corroded, so that the jaw-bone becomes visible, black, and dead. The teeth are now quite loose and painful, and the little sufferer finds much difficulty in taking its food. The breath is remarkably fetid: the lips now generally swell, which is the case with the face on the affected side.

The bowels are frequently affected with loose fetid discharges by stool. If the disease is not arrested here, the jaw continues to be denuded, though sometimes the affection and death of the bone proceeds without any other very serious symptoms. In one case, the bone became affected over the front teeth, to the extent of an inch square, so that the teeth and

bone were easily taken out together. In another case which came under our observation, the bone was affected over the molares of the right side to the extent of three teeth, and extended up higher than the alveolar sockets; the teeth were taken out, and soon after the mortified part came away, the disease extending both inside and out. The separation took place quite through the bone at once. These two cases recovered without any other alarming symptoms supervening.

But unfortunately the disease is not always so favourable; for the disorder sometimes grows worse in spite of all remedies. The lips, face, tongue, and fauces become swelled: the tongue covered with a dark-coloured scurf, the patient is unable to swallow, except some liquid; more or less fever of course always attends; the bowels are affected with frequent and extremely fetid discharges; languor and debility pervade the whole frame; the discharge from the affected bone is so sharp as to corrode the lips and skin over which it spreads. Sulphuretted hydrogen gas can hardly be more offensive than their breath; and in this stage death generally soon closes the scene.

Very bad cases.

Probable
cause.

In the inquiry into the causes(37) of this affection, it will be proper to take into consideration the situation and diet of those who are subject to it. In an institution like the Almshouse, there is necessarily a numerous collection of persons in one room. In the nurseries appropriated solely for children, there are about fifty or sixty inhabiting the same apartment, who consequently sleep, eat, and respire within a small compass. Medical history informs us, that the diseases of confined and crowded places have a gangrenous tendency; and experience confirms the remark. Though particular attention is paid to cleanliness in those rooms, there is more or less miasma generated and floating in the confined atmospheres, which will assist other causes in producing diseases, or render diseases obstinate which are otherwise produced.

Their food is principally brown bread and molasses, though sometimes they have white bread; and latterly, considerable sugar instead of molasses. Rye bread, we know, is much less digestible, particularly in delicate stomachs, than wheat. When it does not digest well, a kind of acetous fermentation takes place, and a corrosive acid is formed; and there is scarcely no material more susceptible

of fermentation than molasses, when somewhat diluted, and exposed to a moderately increased temperature. Thus we have materials, very susceptible of fermentation, mixed and moistened in the mouth, and conveyed to the stomach, where, if the powers of digestion are not strong, this acetous matter will be formed, and by eructations or exhalations from the stomach, it will be passing over the teeth and gums, which in process of time must be much affected by it. Likewise, the particles of food remaining in actual contact with the teeth and gums, and there forming a corrosive matter, may be considered as another cause of the disease in question.

Perhaps no one of these causes would produce this affection alone; but all acting in concert, are doubtless sufficient, particularly in previously debilitated constitutions, which we find are most subject to this disease.

In the treatment(38) of this disease, a va- Treatment.
riety of remedies have been had recourse to; as alkaline gargles, alkalies combined with astringents, and tonics exhibited internally, though with very little effect. The tincture of Peruvian bark has been used as a gargle, in a diluted state, with but slight success, except in moderate cases. Several other remedies have been tried without success.

We find that the only alternative is to extract the teeth surrounded by disease, as soon as it has made any considerable progress; and as soon as the diseased portion of bone begins to separate from the sound, that should be removed likewise.

The gargle which is found to have the best effect, is a solution of sulphate of copper (blue vitriol). When the affection is slight, this may be made weak, but in the more advanced stages it should be as strong as the parts will bear. When the patient is robust, and not constitutionally affected, these means generally cure, with nutritious diet and good nursing. But when the constitution is debilitated, and the bowels become irregular, it is necessary to have recourse to antiseptics and tonics internally, together with the aid of local remedies. The bark is indicated, but it is attended with much difficulty to get children of that age to take it in substance; therefore we have had recourse to the tincture, (39) which is more palatable, and easily exhibited. In slight cases, three or four drachms of the tincture a day, with a glass or two of wine, might be sufficient. But in more alarming cases, five or six drachms should be given, or as much as the stomach will conveniently bear, with a free

exhibition of wine. At this stage of the disease, no rule is necessary for giving wine, but to give as much as the patient can be made to take. By thus persevering in this mode of treatment, the gangrenous tendency of the disease may generally be arrested; the strength of the system will be restored; healthy action will take place at the margins of the mortified bone; the carious portion will be thrown off, and the patient restored to health.

CASE. In 1816, I was desired to see a child, about six years old, with a singular affection of the mouth, as it was termed. On examination, I found the gum detached from two of the teeth, which were carious, as was also the adjacent jaw-bone. I immediately recognised the disease, in the treatment of which I had previously had some experience. The diseased teeth were extracted, and remedies used to correct the state of the digestive organs. The parts were bathed with a lotion of sulphate of copper, and tonics and stimulants given pretty liberally internally. In a short time the patient recovered.

The following cases were communicated to me by Dr. Beers, a respectable practitioner in the town of Clinton, in this county.

1817. Sarah Gifford of Stanford, aged 11 years, of a scrofulous habit, for some time complained of pain in the teeth of the upper jaw of the right side. The friends opposed a solicitation I made, to have the diseased teeth extracted. About this time she was attacked with a pretty severe inflammation of the lungs. On her recovery from this attack, the gums and parts adjacent became swollen, and the cheek externally very much tumefied: soon after which, a black gangrenous spot appeared in the centre of the cheek. On examination, the jaw-bone under it was found carious, and the gums in a gangrenous state. One tooth was easily pushed through the socket into the antrum. On a little moving with the probe, it dropped out. She was now very much debilitated. The disease extended rapidly. The whole of the right portion of the upper jaw became carious, and a part of the malar bone. All the molares of that part came away. Ulceration took place through the cheek, and extended from the angle of the mouth nearly to the ear. From the acrid matter falling upon the lower jaw, that also became diseased. Nearly, or all the molares, with a considerable portion of the jaw-bone, came away. In all, she lost ten teeth.

When the gangrenous tendency of the system was discovered, the patient was treated with vigorous antiseptic and stimulant remedies. The debility and prostration, a part of the time, were so great as to require the most liberal use of these remedies. The strength was supported, and the diseased portions of the bone were separated from the sound. The space was filled with a new growth of parts, after a long and tedious process. The wound closed up, and the patient recovered, and is still enjoying tolerable health.

Robert Doty, aged 30, of a good constitution and temperate habit, in 1819 complained some time of a catarrhal affection, with some swelling of the glands about the throat, which was succeeded by some small abscesses, or boils, that considerably debilitated him. During this period, a double tooth became painful, and was extracted. Soon after this, he was afflicted with general pain through the upper jaw. On my first seeing him, he had a gangrenous spot in the roof of the mouth, together with a general tumefaction and gangrenous appearance of the parts. The whole circle of the upper jaw was diseased; so that in a few days, by taking hold of the front teeth, the

whole jaw could be moved, forming a separation about as high as the upper parts of the sockets. The teeth might mostly have been taken out with the fingers. He was put upon the use of active stimulant remedies. In about ten days, however, his strength failed, and the disease made such progress that he died.

LETTER

On CARIES of the JAWS of CHILDREN; addressed to DR. SHERRILL, by JOHN W. FRANCIS, M.D. Professor of Obstetrics, &c. New-York.

NEW-YORK, 31st December, 1825.

DEAR SIR,

THE memoranda which I possess, concerning the particular subject of your inquiry, are few and imperfect. Yet I can have no hesitation in communicating, for your disposal, such information as I am able.

The disorder which you denominate a *Caries of the Jaws of Children*, and which others have named a *Gangrenous Ulcer of the Face of Children*, though comparatively speaking a complaint seldom to be met with, is nevertheless found to occur under different circumstances of age,

modes of living, climate, and country. I believe it to be, moreover, a disorder by no means so novel as is supposed by some. Pearson, in his Principles of Surgery, has evident allusion to it; and long before his time, Huxham states that he witnessed a mortification of the fauces and mouth in infants, besides a caries of the cheeks and os vomeris, which occasioned a very painful kind of death. This followed after measles. Willan has observed almost the same occurrence to take place subsequent to scarlatina. Hall, of Nottingham, has described several cases, which he terms a peculiar species of gangrenous ulcer, affecting the face in children.* Burns, in the last edition of his Midwifery, has a section on the diseases of children, entitled *Erosion of the Cheek, and Sloughing Ulcer of the Pudendum*.† This is indeed blending two affections not wholly alike; yet many of his facts are strikingly applicable. And even the cases of Mr. Kinder Wood, which are described under the title of a fatal affection of the pudendum of female children, enable us the better to understand the character of the

* Edinburgh Medical and Surgical Journal.

† Burns' Midwifery, sixth edition.

peculiar caries of the jaws you have described.*

In this last mentioned complaint, the ulceration ensues within a few hours after vesication of the part; it becomes deep and foul; but mortification rarely occurs. In the treatment of it, bark, and cordials internally, and stimulating applications externally, have proved most serviceable. Many practitioners have been familiar with this disorder, who have never seen an instance of caries of the jaws. The late distinguished Dr. Richard Bayley, of this city, was an ardent advocate in these cases of ulceration of the pudendum, of the treatment by tonics generally, and of the local application of the ungt. basil. nig. It is reported that his practice was eminently successful.

I am strongly inclined to think, that if reference be made to the continental authors, we shall find the disorder of the jaws of children to be noticed by several of them. In his class Cachexiæ, order Anomalæ, the father of nosology, Sauvages, enumerates several kinds of necrosis; as those which arise from the secale cornutum—from particular virus—from scor-

* See Medico-Chirurgical Transactions of London, vol. vii.

butus, &c. From the section entitled *Necrosis Infantilis*, I quote the following.

“6. *Necrosis Infantilis*. Morbus est novus, seu nullibi descriptus, frequens tamen apud infantes quinquennes, potissimum in orphanotrophio; illis vel in gena, vel in vulvâ apud puellas, supervenit, sine febre, macula rubra vel livescens, sine dolore, tumore, calore, quæ acu pertusa non dolet, post paucos dies sponte laceratur à levissimo tactu, sine ulla sanguinis vel alterius humoris effusione: sensim vicina carnes, gingivæ v. g. eroduntur, pulsu, fame, cæteris vix mutatis, et intra paucos dies fato cedunt, omninò absumtis, nigris, siccis, vel vulvâ eodem modo erosa.

“Pluribus scorbuticis superveniebat ad genam ulcus exiguum, album, in ambitu durum, quod neglectum livescebat, nigredine et fætore accedente, unde totâ, genâ, perforatâ, erosâ, dentes in conspectum se prodebant; hujus ulceris indolentis, gangrenosi, sicci, progressus sistit, spiritus vitrioli. Similes casus vidi pluries, sed gena sine ulcere statim livescebat, altero die perforata, sine dolore, inappetentia, febre, debilitate, interiora oris patefaciebat, letho intra paucos dies subsequente: idem vidi apud virgunculas in vulvâ.”—(*Poupart Hist. de l'Acad. R. des Sc. 1699, p. 175.*)

On the other hand, some of the most prominent clinical observers of the present day have neither seen nor even heard of this disorder. In the Bristol Infirmary, one of the largest and best organized institutions of Great Britain, neither Dr. Chisholm nor Dr. Pritchard ever witnessed a case: and in a letter to me, embracing this topic, Dr. Chisholm remarks, that to him the complaint was wholly novel; he had seen no case of it during his long and extensive practice in the Indies. Mr. McGregor, in his Report of the principal Diseases that have prevailed at the Royal Military Asylum at Chelsea, from its establishment in 1804 to 1814, gives no instance of such an affection. At this Asylum, twelve hundred children are fed, clothed, and educated, under the protection of government: they are admitted from five to twelve years of age. We find them to suffer from measles, scarlet fever, and the like, but from no sequela, like the disorder now under consideration. Dr. Bateman, who has so well described the diseases of London, from 1804 to 1816, makes no allusion to an instance of it in his valuable Reports. (London, 1819.)

Still in our country we may occasionally observe it. The late Dr. Dyckman, who was for some time Surgeon to the New-York Alms-

house and Penitentiary, saw some cases of it at that institution in the season of 1821-22. I have been well informed that it has occasionally occurred there since.

I have known caries of the jaws in children to occur in the Almshouse in different years, and at different seasons, since your attendance in 1809. The accompanying circumstances were such as for the most part you have described. In some cases the disorder was preceded by derangement of the digestive organs—by fever of a malignant form—and in a few instances it followed diseases of specific contagion, variola and scarlatina. I have had no positive proof of a single instance of the complaint arising from the use or abuse of mercury: and moreover, the effects of calomel on the mouth and salivary glands, are different from those characteristic of this disease, even when this mineral induces sloughing, and proves fatal. This remark coincides with the observation of Dr. Hall.

Those most vulnerable to an attack of this disorder, were from the age of two to five years, and whose muscular strength was debilitated or reduced by irritation. At the time it prevailed in 1812-13, several instances were

seen affecting patients somewhat older. I saw one of a female child, aged about seven years.

Cases of the complaint were always more frequent in the winter season than at any other; and during the periods when a humid atmosphere prevailed. It existed in the apartments on the ground-floor of the Almshouse; and the little sufferers were generally, upon the appearance of it, removed to a higher and better ventilated situation. Every medical man knows the pernicious effects which cold and moisture produce in children; and that those thus exposed, rarely escape disease of some sort. No doubt can exist that the diet of the house had also an agency in creating this disorder. We cannot deny the connexion and influence of local disease with general disorder of the digestive functions. To a vitiated or depraved state of the chylopoietic organs, must be attributed many of the cases we observe of local derangement of structure and function, whether of the muscular fibre or of the osseous system. The sceptical may consult on this head, Abernethy on the Constitutional Origin and Treatment of Local Disease.

The rapidity of this disorder was often astonishing, though in particular instances the patient lingered out some ten or fourteen days

from its commencement; and instances happened in which the disorder persevered in its course, and did not terminate until twenty or thirty days. Cases also repeatedly occurred, in which an extensive sphacelus would be formed, and life itself be cut off within the first thirty or forty hours after the complaint manifested itself. Sometimes the upper jaw, at others the lower, and occasionally both jaws, would be the immediate seat of its invasion. The specimens I have, (presented me by the late Dr. De Puy,) are of the upper jaw; and this was in fact the part which, in a majority of cases, was first attacked. In these specimens there is an entire necrosis. I regret I have not at command the interesting observations this excellent man drew up concerning this disease, and which he read at a meeting of the Medico-Chirurgical Society.

The disease frequently began about the edge of the gums, in contact with the necks of the teeth, say the incisors. The parts became tumid, with hardness and pain. Sometimes the larger part of the side of the face, about the seat of disease, assumed, with scarcely any premonitory signs, an erythematic aspect, and this was subsequently marked by spots of a dark purple or brown colour. Sometimes the

part became dark, and sphacelus speedily ensued; the flesh became loose and separated, and the whole emitted a fetid exhalation. The tongue was loaded with a foul sordes, and the breath was now excessively fetid. Coma took place, and the patient seemed to enjoy a truce from suffering. Death often suddenly occurred under these circumstances.

In other instances, the teeth became loose at a very early stage: in these last cases, it was not uncommon for many of them to drop out by the slightest effort or motion. The necrosis would, in some subjects, involve full one side of the jaw, and the ulceration affect an equal portion of the soft parts, as also the alæ nasi, the nose itself, and also extend to the cheek nearly up to the orbit of the eye. When the sphacelated flesh fell in, the internal portion of the mouth was exposed.

The lower lip also, in some few cases, became tumid, painful, and discoloured, and underwent morbid changes similar to those of the upper lip and parts. They spread in like manner from the gums, affected the teeth sockets, mucous surface, and cheeks.

I do not recollect seeing any case in which other parts of the body participated in this peculiar ulceration. Authors have cited in-

stances where superficial gangrene has taken place about the nates and genitals. I question, however, whether any such morbid reciprocity was observed in this disease at any season by the medical prescribers of the Almshouse.

At the different seasons in which caries of the jaws of children occurred in the New-York charity, the disorders especially noticed as anywise prevalent in the city, were the measles, the varioloid disorder, pneumonia, and intermittent and remitting fevers.

On the subject of *treatment* in this disorder, little need be said. After due attention to the state of the stomach and intestinal canal, bark, in substance or in tincture, was freely given, and the bark and yest poultice applied to the affected parts. The decoction of the snake-root and wine were also prescribed as a valuable antiseptic. But the remedy of most available efficacy, was the saturated solution of the sulphate of copper, freely applied several times a day to the excoriated surface and ulcerations. A weak solution of the sulphas cupri was generally used as a gargle, and at times the ordinary washes of borax, alum, &c. But, as before said, the most general and certain remedy was the saturated solution of the sulphate of copper.

If I have written to you at greater length than you desire, I trust the nature of the subject will plead my excuse.

Very truly your friend,

JOHN W. FRANCIS.

DR. SHERRILL.

If I have written to you in greater length
than you desire, I trust the nature of the subject
will plead my excuse.

Yours truly,
JOHN W. THURLEY

JOHN W. THURLEY

NOTES

AND

ELUCIDATIONS.

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NOTES

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NOTES AND ELUCIDATIONS.

(1.) Page 15.

SIMILAR affections of the skin have been noticed by writers, as preceding great epidemics.

(2.) Page 18.

The time has been, when cold water and cool air were in a measure shut out of a sick-room; but modern doctrines and experience admit a free use of both, particularly in the early stage of disease. Although my patients have been indulged in the use of cold water, I do not recollect an instance in which it has proved injurious. It is the quantity of fluid taken into the stomach in most cases, more

than the temperature, or any specific quality of the herb infused in it, that is serviceable in curing fevers, by diluting the fluids, and furnishing matter for perspiration: and when there is increased action in the system, the cold has a tendency to diminish that and lessen heat. It is often difficult to get patients to take warm drinks in quantity enough to do much good, when they will take freely those that are cold.



(3.) Page 21.

Some part of the description of this disorder, and the principles of treatment here detailed, are taken from a paper I wrote in 1813, while the disease was prevailing, which was published under the signature of "*Medicus*," in the Republican Herald of Poughkeepsie.



(4.) Page 21.

In some cases the ague lasted ten or twelve hours. A very long ague was commonly at-

tended with a torpid state of the system, when remedies, in ordinary doses, failed to produce the desired effect. This combination of circumstances indicated an obstinate or severe case of disease, which experience will teach is not confined to this disorder, but will prove so in other cases. It is an indication for greater perseverance in the use of remedies.



(5.) Page 23.

This appears to be the kind of pulse described by Armstrong, and called a compressible pulse. It is particularly noticed by him as taking place in diseases of congestion. It is similar to what Dr. Rush terms a pulse from depression. When it takes place in the early stage of disease, I have uniformly known the pulse to become fuller and fairer after evacuations. This pulse is increasing in frequency in the diseases latterly prevailing.

Dr. Rush, in his *Observations on Hydrophobia*, has described a condition of the system, in which a pulse denominated the soap-bubble pulse may occur. The language is expressive of the fact. "The bilious fever in the South-

ern States, we are told (says Dr. Rush), frequently exhibits this *transition from an active to a feeble state of the arterial system*. This soap-bubble form of disease appears likewise in madness, when it occurs in hard drinkers. After one or two bleedings, which are called for by the pulse, the *system sinks into a prostrate state*; and unless it be restored by prompt and liberal doses of opium, volatile alkali, and in some cases by ardent spirits, the disease sometimes terminates in death." Dr. Rush adds—"The hydrophobia appears to be a fever of this kind." (*See Dr. Rush's Letter to Dr. Hosack, in the American Medical and Philosophical Register, vol. iv.*)

This pulse is essentially different from what Dr. Rush terms the depressed pulse, or what others have termed the flaccid pulse of congestion. There is a striking practical principle always to be kept in view on the subject of the pulse of persons intemperate in the use of ardent or spirituous drinks; and nothing on this head can militate against what has been advanced in the text.

(6.) Page 26.

The idea that spots or circular eruptions, or discolorations occasionally attendant on fevers, are an evidence of a state of real debility, or of a typhoid state of the system, is found to be erroneous. It will be recollected, that it was an argument used in favour of the stimulant practice, and opposed to evacuations; that the disease was a *spotted fever*. Spots may be attendant on violent inflammatory action or depression; or they may be the consequence of real debility and exhaustion. When they occur in the early stage of disease, they are generally considered of the first kind, and are red and fiery. In the advanced stage of the case, they are likely to be connected with typhoid debility: in such cases they are dark, or of an inky colour. The character of this disease appears to differ somewhat from that which occurred in the Eastern States.

An elaborate Essay on this disorder, the spotted fever, was published by Dr. Strong of Hartford; and the Massachusetts Medical Society also gave an interesting history of the complaint, in the second volume of their Communications. It is evident from these accounts, that under peculiar circumstances the com-

plaint exhibited a variety of character, both in the several affections, and in the order in which they occurred. Speaking of the spots on the skin, the Committee of the Boston Medical Society observe :

“The spots on the skin are of various descriptions. They occur in all stages of the disease; less frequently, however, on the first than on the subsequent days. Frequently a rash, or miliary eruption only appears, or a few blotches on the inside of the elbow, and other similar parts; and it has been suggested, that these may be produced by the mode of treatment usually adopted. The blotches are florid, or red and fiery. An appearance like measles has also been noticed, and likewise vesicles and pustules, which have been compared to the vaccine and variolous eruptions. In some cases, these spots and eruptions have appeared at periods two or three times in the course of the disease. The vesicles and pustules are very frequently torn by scratching: after which, or without being torn, they are commonly followed by scabs of a brown colour; but occasionally they are followed by ulcerations, which do not heal until after recovery.

“These affections of the skin are often attended with itching; and, independent of them, itching very frequently occurs, especially on

the third day, when the symptoms become more favourable at that time. This itching is sometimes extremely violent, so that the patient will almost tear up his skin in endeavouring to alleviate it. All these affections are frequently noticed at the time when the more important symptoms abate, or subside.

“In a few instances, vesicles containing a bloody fluid occurred in the county of Worcester. These vesicles were compared to blood-blisters, and were about the size of a large pea: they appeared in various parts of the body and limbs; in a few days they broke, discharged a bloody fluid, and scabbed over. In one case, in which the attack was very violent, blisters resembling those produced by cantharides, appeared on the second and third day, on the breast and on one foot. They were about five inches in length, and nearly one in breadth. On the fourth day from the attack, some of those on the breast and that on the foot became black and dry, and the skin was sphacelated. The eschars, with due treatment, left clean ulcers, which healed without difficulty. The appearance of petechiæ and vibices has been noticed: they occur in comparatively few cases of the disease. They are of worse portent in proportion as they are

more dark-coloured. They do not, however, always occur in fatal cases, nor are they confined to such cases."

In his observations on the epidemic pneumonia, Dr. Low of Albany states, that in several instances the disease terminated by the supervention of an anomalous rash, which was very prevalent in that city during the whole winter. (*See his Letter to Dr. Francis, in the American Med. and Philos. Register, vol. iv.*)



(7.) Page 27.

In the attack from the diminished action of the vessels, of the skin, and the flow of blood to the heart and lungs, or from the depressing effects of the crudities of the alimentary canal, a chilling syncope or torpor was produced, which required, and was benefited by, cordials and stimulants, to aid the re-action of the system, which generally took place in a few hours, though in some extreme cases it appeared to last a long time; when it was proper that those remedies should be omitted, and the re-action met by the lancet, or some other evacuating remedy.

In Dr. Mann's Medical Observations and Collections on the Diseases of the Army, during the late war, are to be found some interesting remarks on the injurious effects of the stimulant practice, as used among the soldiers, as well as among the inhabitants, in many instances, in the vicinity of the army. The course of treatment, which Dr. Mann says was generally attended with success, was very similar to that detailed in these pages.

(8.) Page 29.

Names in themselves are harmless, when they do not exert an improper or controlling influence over the minds or actions of men. They are, however, apt to have too much influence in the treatment of diseases, by having associated with them a certain set of remedies in the cure, instead of taking into view the operations of the functions of the body, the beat of the pulse, the grade of excitement, and the state of the system generally. Thus, with intermittent fever, tonics and stimulants are associated as remedies; with pleurisy, blood-letting and other evacuations; with syphilis,

mercurials, &c.; and with typhus fever, cordials, stimulants, &c. But in all these, and other cases, the system frequently requires a preparatory course of remedies, before commencing with those ordinarily used in the simple systematic treatment. If the disorder which receives the name of typhus, does not happen to be that state of disease, but rather disguised inflammation or congestion, and early evacuations are omitted or prohibited, through fear of producing debility, there is great danger of bringing about that typhoid state of the system that had been so much feared.



(9.) Page 36.

From information received from various sources, respecting the mode of treatment pursued, and a comparison of the results, drawn from the various essays that have appeared on the subject, it would seem that the sweating and stimulating plan, either alone, or combined with mercurials, was frequently unsuccessful in this part of the country. The plan of relying upon mercurials and sudorifics, unless they were given in sufficient quantities to

produce free operations on the stomach and bowels, and bring about an early mercurial action in the system, was very frequently attended with unfavourable results.

In what was termed the sweating stimulating plan, the patient was put upon the use of hot stimulating teas and drinks, which were rendered more heating by adding to them ardent spirits, and that frequently in large quantities: hot fomentations, and other heating applications, were applied externally, so as to get the patient (as it was termed) into a hot sweat; and frequently this course was continued throughout, under various modifications. This course was sometimes successful. Dr. Rush states, that stimulant remedies may, in some cases, be used in such an excess as to overpower the stimulus of the disease, by carrying the excitement of the system over the diseased action. This, however, he considers a course much more hazardous than to let it fall back, and take off the diseased action. It is, however, to be observed, that the transition from the active to the passive state of the system, was sometimes quick, and in many cases it was proper to commence earlier with the use of wine and stimulants, than in many other diseases; and at this stage of the disease,

stimulants were sometimes called for very liberally.

The heating sweating practice in the cure of diseases, has but recently been somewhat refined, and introduced with an ostentation of patent remedy, by what is termed *Thompson's Steam or Vapour Bath*;—by the process of which, it is said the patient is subjected to hot vapour for a length of time, without regard to the state of the system or grade of excitement. If this course, in many instances, does not produce direct death, by forcing the fluids into vital parts, it is likely at least to convert a mild disease into one of a more obstinate and malignant character. The evil effects of using such remedies, in this way particularly, while there is fulness and increased excitement in the system, will appear in various ways.



(10.) Page 37.

Has there not latterly been rather a disposition to recede in medical doctrines and practice from the cooling evacuating method, and to adopt the alexipharmic course, which Sydenham and many of his successors laboured to oppose and correct?

(11.) Page 39.

A lasting impression was made on my mind, in the early part of the prevalence of the disease, on calling on an acquaintance in a town some distance off, who was very ill with it. It was about the sixth day of his illness. He had tightness and pain in the chest, bloody expectoration, and a deathly countenance. He sat up in a chair, and showed me the spots, as he called them, on his legs, and concluded he was dying, as he really was. He expired in a few hours afterwards. His legs exhibited the striped mottled appearance attendant on cases of depression or inflammatory action in the late stage, where evacuations have not been made. None had been made in this case. The kind of spots, or mottled appearance in this case, I believe were the principal ones attendant on the disease among us.



(12.) Page 40.

It so happened, that in the treatment of this disease, a considerable difference of opinion

occurred, and those who adopted the evacuating plan, met with much opposition and some obloquy from the prejudice that existed against it. But after a while, the prejudice so far subsided, (at least in most cases as far as I was concerned,) that there was no difficulty in carrying the course of evacuants into full operation. How much this prejudice against evacuations has continued to sway the minds of medical men, will not be attempted to be shown. After the adoption of these principles and remedies, and this lapse of time, it is gratifying to find so valuable a writer as Armstrong observe,—“ But notwithstanding the improvements that have taken place in the practice of physic, there is still too general a dread of blood-letting in idiopathic fevers. The cooling mode of treatment has lessened in modern times the frequency of the putrid appearances, and the introduction of the purgative plan by Dr. Hamilton, has tended to diminish the number of malignant cases. Remarkable as it may appear, the fevers accounted the most malignant, require the most vigorous means in the onset. Cut short the inflammatory or congestive symptoms in the beginning, and nothing putrid or malignant will appear.”

(13.) Page 41.

The nursing of this poor man was humanely undertaken by Mr. J. Rogers, by whose kindness and constant attention much was done toward a successful termination of the case.

(14.) Page 43.

The general affection of the brain, attended with stupor and delirium, particularly in the early stage of the case, was an evidence of the determination of the fluids to that organ; and the depressing effects produced by them, may be taken as one cause of the diminished circulation, smallness of the pulse, and torpor of the skin. The symptoms, taken together, seem to have produced that state termed debility from action or depression, by Dr. Rush. and congestion, by Dr. Armstrong.

(15.) Page 45.

Such is the disposition of many people to make use of ardent spirits, that they are ready

to seize upon any excuse of disease or medical authority to gratify that propensity. As a preventive and a remedy for this disease, its use became very fashionable. This practice had its full share in exciting the disease into action, and of aggravating it when formed. But the evil did not end here. Its effects on the moral faculty became very perceptible; it operated as a passport to drunkenness; so that, amid the anxiety and gloom that was often spread in a vicinity, their use and effects were observed so that intemperance mingled in the scene!

(16.) Page 56.

The yellow fever.

(17.) Page 61.

The President is to deliver an address to the Society, at the end of each year after his election to office.

*(Extract from the By-Laws of the Dutchess
Medical Society.)*

(18.) Page 63.

Although blood-letting was occasionally used at times, the case became perplexing, connected with a wiry hardened state of the pulse, pain and soreness of the bowels; a state that opiates do not relieve, and astringents aggravate—it is more readily relieved by sudorific or evacuating means. In some late writings, blood-letting is urged as an important remedy in the treatment, and a recent extensive opportunity for observing the progress of this disease, and the effect of remedies in it, has tended to confirm the remark made in the text, that in our climate it is advisable, in active cases, to use blood-letting, or some other active evacuating remedy, either before or soon after the free exhibition of opium. When these remedies are combined, united with calomel in liberal doses, and judiciously managed, a favourable influence is produced on the disease. In many cases, particularly those of a mild nature, the method of giving ipecacuanha in infusion, or in small doses, with occasional opiates, is a very pleasant and successful way of effecting a cure. After all the plans proposed for curing this disease, it requires to be

treated somewhat according to the nature of the prevailing epidemic and peculiarity of the case, which will show the uncertainty of a reliance on a particular plan, and the futility of recommending the various specifics and nostrums yearly published for the cure of dysentery. Where there is a congestive state of the system, or an active fever attending it, with a fiery red tongue and hot or husky state of the skin, as, when the disease is epidemic frequently occurs, blood-letting is very essential, and in that state the use of opium in the early stage without it, is attended with unhappy results.

(19.) Page 65.

No one thing, perhaps, is better calculated to correct medical abuses and professional jealousies, than well regulated medical societies. To effect that object, it is advisable to have judicious laws, and those regularly enforced.

(20.) Page 67.

The remittents that have prevailed latterly have not been attended with any prominent external symptoms of bilious affection, such as were exhibited at some former periods. The skin is seldom very yellow, and the tongue not particularly coated with bilious scurf; the substance of it rather partaking of a fiery redness. In many cases, considerable torpor of the system and huskiness of the skin has occurred.

The remittent type of fever in some parts has, latterly, partaken of a very inflammatory character, and been frequently attended with much depression, which is to be relieved only by the liberal use of remedies adapted to this state of disease.

(21.) Page 68.

Such changes have taken place in the character of our intermittents, in many instances, that they frequently require the liberal use of

remedies to reduce increased excitement, before the case is benefitted by tonics. The majority of cases that have occurred recently have recovered with the very sparing use of the latter remedies.*

(22.) Page 68.

The practice of giving opium is beneficial after the operation of cathartic remedies, particularly at evening, and then in such doses as to allay the pain and insure sleep. For this purpose, from 50 to 100 drops of laudanum are often required. This practice aids very much in the cure, and is generally agreeable to the patient.

* In the excellent remarks on intermittent fevers, in the nineteenth number of the New-York Medical and Physical Journal, it is observed, "sometimes, however, arterial action is elevated from the commencement, constituting the inflammatory diathesis of authors. Hence, in such cases, if the excitement be reduced by venesection, an emetic or a cathartic, according to existing circumstances, a less quantity of the curative agents will be required."

(23.) Page 73.

On this very peculiar and interesting disease, the reader might consult, with great advantage, the interesting work of Mr. Cross, of Norwich, entitled, a History of the Variolous Epidemic which occurred in Norwich, in the year 1819, and destroyed five hundred and thirty individuals, with an estimate of the protection afforded by vaccination, &c. This author's remarks on modified small-pox, are highly valuable. Several other able pens have been recently employed on the same subject.



(24.) Page 82.

In the town of Poughkeepsie, where the measles prevailed to an extensive degree, I am informed by Dr. Cooper, that the disease exhibited such an inflammatory character, as to be benefited, in many instances, by a liberal use of the lancet. He also observed, in that stage when there was a determination to

the lungs, emetics were used with beneficial effects.

Dr. Barnes observed, he found occasion to use blood-letting frequently with great advantage.



(25.) Page 84.

A number of cases of this description have been observed. One of the nicest points of discrimination, particularly in pneumonic disease, is, when to give stimulants and when to withhold them. A pretty early use of them is, generally, agreeable to the friends, but sometimes fatal to the patient.



(26.) Page 85.

In some instances four or five bleedings were advisable. The necessary quantity had better be drawn early after the attack, though no precise rule can be adopted for some time, particularly in congestive cases. A stricture across

the chest and tension of the pulse take place in the advanced progress of the case, when a small bleeding is of much service.

It is fortunate that diseases are frequently removed and health restored by different modes of treatment, and perhaps most practitioners have one to which they are somewhat partial: but if we can arrive at a mode that is most likely to carry the patient safely through, it is an important point gained. That which appears to be among the best, the result of much research and observation, from its proving very successful, is the following. In an acute attack of inflammation of the chest, bleed from one and a half to two pounds, or until a disposition to fainting is induced. If the pain, stricture, and tension of the pulse continue, or return in twelve or fourteen hours, let the bleeding be repeated. Armstrong's direction is to continue it until the pulse flutters under the finger. Give Glauber or Epsom salts, with tartarized antimony in small doses, so as to nauseate or vomit and gently operate on the bowels. After the arterial action is pretty well subdued, if the disease continues, though it frequently terminates here, give calomel, opium, and sudorifics; but before giving opium the evacuations ought to be such

as to produce a relaxation in the system, and take off inflammatory tension. The propriety may be doubted of giving calomel in these acute inflammations until about this period, as the preceding may be considered the stage or time most appropriate for venesection; after this, calomel and opium most readily affect the system. When it becomes necessary to continue the bleedings to three or four times, as is frequently the case, a state of irritability of the system sometimes takes place, and a pulse of irritability supervenes, which is better learnt by observation than by description;* which state is most readily relieved by opium and calomel. At this period there ought to be a steady, free exhibition of those remedies, until the circulation becomes equalised and a mercurial impression is made on the system, when the patient is generally safe.

The patient ought to be encouraged to drink freely, to which they are generally inclined, and commonly have a preference, for cold water, in the use of which I have often had pleasure in seeing them freely indulge, notwithstanding the general prejudice against its use

* For some useful observations on diseases and states of irritability, see New-York Medical and Physical Journal.

when they are taking mercurials. The force of this objection I have not been able to discover—on the contrary, facts and experience prove it to be unfounded. It appears to be one of those errors about remedial means that have crept along through nurseries, and in the traditions of the good old women, without being much noticed. By frequently gargling the mouth with cold water and drinking it, if preferred, we prevent the mouth becoming sore, as it otherwise would. It is the application of cold, either of water or air to the skin, that is injurious during the use of mercurials—by checking the perspiration and determining the medicine and action to the internal parts and glands of the mouth. This view of cold water is, I am aware, in a considerable degree, at variance with the views of John Pearson of London, concerning the treatment of the mercurial eczema and excessive salivation.

The use of opium to relieve a mercurial sore mouth, as alluded to in page 70, must be liberal to have the effect. Where disease has suddenly given way, and the effect of the medicine on the mouth has become excessive, I have given large quantities at intervals of five or six hours, with very beneficial results.

(27.) Page 85.

The increasing number of consumptive cases in our climate, in some measure grows out of the frequent epidemic prevalence of inflammatory affections of the lungs: those being ill cured from the want of early depletion, or from a want of efficient means: or the patient neglecting to take proper advice, a consumptive predisposition is formed; and frequently not thinking themselves very sick, they are decoyed into the use of some of the numerous nostrums offered for the cure of *coughs, colds, and consumptions!!* It is proper to observe, that this remark refers only to that species of consumption succeeding inflammatory affection of the chest, or the pneumonacula of Dr. Rush.

(28.) Page 86.

Although there are many valuable practical maxims in Dr. Miner's book, his positions against the use of depleting remedies, if ap-

plied and carried into operation in the diseases of Dutchess County, as far as my observation has extended, would be attended with serious and unfortunate consequences. Many of his views correspond with those of Armstrong, but the indications and use of the lancet, connected with the other remedies as recommended by the latter, make an important part of the treatment.



(29.) Page 86.

It may be somewhat incorrect to state, that this disease is confined exclusively to the female sex, although true childbed fever must necessarily be so. It seems one somewhat analogous may extend to other persons. In Campbell's Treatise on Puerperal Fever, it is observed, "we find a disease in no respects different in males and in virgins in the unimpregnated state"—and "that women who were not in childbed, pregnant, or nursing, and even men, while the puerperal fever was epidemic, (in Edinburgh) were seized with symptoms resembling it, and died precisely in the same condition with those who fell victims to the dis-

ease of childbearing." Since the prevalence of this disease, more cases of inflammation of the abdominal viscera have occurred than I have observed in the same time at any other period. They have uniformly yielded to the same general remedies, that is, blood-letting, calomel, cathartics, opium, &c.

Under this class of abdominal affections, the disease termed bilious cholic may properly be placed. This disorder, in a number of instances within our knowledge, has recently proved fatal. It may be successfully treated by liberal blood-letting, succeeded by calomel and opium. These remedies should be followed by gentle cathartics. It is not so important to produce a speedy evacuation from the bowels, as to relieve inflammation, and remove the stricture. When this is done, the bowels are generally easily moved. By irritating them at first with active cathartics, the complaint may be aggravated, and the object not attained.



(30.) Page 92.

The plan of treatment here proposed it is proper to observe, as far as bleeding is used,

is in conformity with the authority of Gordon, Hey, and Campbell, only it seems unnecessary to continue the bleeding as late in the disease as they, in some instances, recommend. Instead of pursuing their subsequent treatment of purging with salts, &c. the practice is drawn from the principles of Armstrong, of using calomel and opium in liberal quantities, and for the external treatment we have the authority of Campbell, "that while we are using the lancet the abdomen should be fomented."



(31.) Page 93.

By keeping the patient under the continued action of opium, so as to produce what may be termed an opium pulse, and allay the irritability. In this stage of the disease, opium does not appear to prevent the operation of cathartics, and perspiration is promoted.

(32.) Page 93.

See note 26, on the use of blood-letting, calomel, opium, &c. in cases of inflammation of chest. Also, refer to note 28, on the cure of dysentery.



(33.) Page 94.

In most cases where it is advisable to give large doses of opium in the early stage of disease, it will be better to precede it by blood-letting, so as to produce a relaxation of the system, and partially empty the vessels. Otherwise, opium may have a tendency to increase the tension and fulness, and produce restlessness and heat. May it not be from a want of attending to this circumstance, that opium and the remedies used with it, often fails in relieving tetanus and other spasmodic affections?

(33.) Page 97.

This symptom is somewhat peculiar to the disease, and is a very good characteristic. It is attended with difficulty of speaking, as though the patient was out of breath from running.



(34.) Page 99.

Since reading this paper, several other cases of this disease have occurred, that have come under our direction. They have all been successfully treated upon the same general plan. From among these, the following case is introduced. It shows that the loss of blood beforehand, does not prevent the disease, as is remarked in page 100 and 101.

Nov. 1825. B. P., aged 25, of a full plethoric habit, was taken in labour on Thursday the 24th. The labour was tedious, and the delivery was not accomplished until Saturday morning. She had been bled six times during her pregnancy, and once largely after labour had commenced. She took cathartic medi-

cines which operated freely, and seemed very comfortable until the 29th.

29th. This morning, at eight o'clock, she was attacked with severe pain across the abdomen, and in the sacral region, attended by a very burning heat. The abdomen tumefied and extremely tender; skin dry; pulse moderately full, and the tongue white. Respiration difficult, and the countenance anxious.

At two o'clock, took sixteen ounces of blood and gave three grains of opium, with ten of calomel. Applied strong sinapisms to the feet and fomentations to the abdomen.

Eight o'clock P. M. Pain and tension somewhat abated. Skin still dry. Pulse 100. Took sixteen ounces of blood. Directed ten grains of calomel, two of ipecacuanha, with the same quantity of opium to be taken during the night.

30th. Six A. M. Rested tolerably well last night. Perspired very little. Skin still dry. Pain not severe, and tension gradually abating. Gave fifteen grains of calomel and one of opium, to be followed by an infusion of senna and manna. During the day, continued the infusion. The opium was also repeated twice in two grain doses.

Eight o'clock P. M. Has had several stools during the day. Very little pain. Skin still dry. Gave ten grains of Dovers' powder, and left two grains of opium to be taken at twelve o'clock.

Dec. 1st. Eight A. M. Took the opium as directed. Pain and distension entirely subsided. Pulse 90. Skin not moist, but felt natural. Encouraged the evacuations by castor oil and gruel. From this period she gradually recovered.

(35.) Page 101.

The puerperal fever, like other diseases, will, no doubt, be influenced by the nature of what other epidemic may be prevailing at the time, and have symptoms more or less varied in character, which will have a tendency to render the case more difficult and perplexing, and sometimes may require a variation in the mode of treatment.

In further showing the authority for the extent to which remedies may be used in this and some other diseases, the following quotation from Campbell is appropriate:—"In any

case, the condition of the circulation alone is to be our guide during the flow of blood, and the arm must be secured when the pulse begins to flutter. I have often heard men of great experience say, and I have had many opportunities of knowing their sentiments to be correct, that we seldom do harm by bleeding too much, but very frequently by bleeding too little. I wish this to be particularly kept in view in the disease under consideration; for I am persuaded, that if our assistance is called for, we have very little to apprehend from using the lancet too freely: and I am no less satisfied, that in some cases, the contracted or apparently enfeebled state of the pulse, so characteristic of abdominal inflammation, has often deterred persons from performing venesection when it might have been done to advantage." (*Campbell on Puerperal Fever.*)

(36.) Page 103.

Drs. Hosack and Macneven, at that time visiting physicians of the Alms House, were of the number.

(37.) Page 110.

It may be stated, that when there is discovered a disposition to this disease, it would be advisable to pay particular attention to the state of the digestive organs. The blue pill, combined with some gentle laxative or tonics, would be very appropriate remedies. In this and some other diseases, when the general health needs improving, the best remedies are those that correct the secretions and actions of the bowels, combined with, or followed by, tonics.



(38.) Page 111.

The sulphate of quinine now in use, would doubtless be a useful remedy.

CARIES OF THE JAWS OF CHILDREN.

Since the observations on this disorder in a former part of this work have been printed off, I have received the following :

New-York, November 1, 1826.

DEAR SIR,

Since the date of my communication to you on the subject of *Caries of the Jaws of Children*, Dr. Coates of Philadelphia has published an excellent paper on the disease, in the third number of the North American Medical and Surgical Journal, which I am persuaded it would be serviceable to insert in your contemplated work. Dr. Hosack has favoured me with an interesting notice of an analogous disorder, which he has generally noticed in his annual course of lectures on the practice of medicine. I take the liberty of enclosing to you his remarks.

“ Analogous to this peculiar disease is the sphacelus of the cheek, which follows the ulceration so often occurring in the mouths of children, as symptomatic of teething and a deranged condition of the digestive organs.”

“ I saw this disorder many years ago. Se-

veral cases I have noticed in my lectures, one of which occurred in a child, aged about six years, in the Alms House of Alexandria, during my residence there in 1791, and which proved fatal within a few hours from its commencement; sweeping away the soft parts of the cheek and jaw, even to the internal fauces. The nature of this disease of the *animal* body may be, in no imperfect manner, illustrated by reference to that occurring in the vegetable structure, especially in the cactus coccinellifer, denominated by Monsieur Thierry, in his Natural History of the Nopal of the West-Indies, *la dissolution*, so called from the rapid destruction which the disorder produces in this plant. In the morning the cactus is, to all appearance, in perfect health; the disease begins by small spots; in the course of a few hours these diffuse themselves, and terminate in the decomposition or sphacelus of a great portion of the plant. It is for the most part ascribed to an inordinate plethora, occasioned by excessive rains."

With due regard, I remain yours,

JOHN W. FRANCIS.

Extracts from Dr. Coates's Essay.

Locality of the Disease.—The Philadelphia Children's Asylum is situated in South Fifth-street, between Prime and Federal streets, in the district of Southwark. The soil is what is called alluvial, or rather diluvial; as is well known to be the case with all that district, lying south of Philadelphia, as well as the southern part of the city itself. The house was built, and for many years occupied, as a mansion, by the head of a most respectable and wealthy family. Its situation possesses some of the qualities usually selected in choosing the site of a country seat. The buildings stand on a swell of ground, leaving an open lawn, now interrupted by several unoccupied streets, and extending, on the right hand, to the banks of the Delaware, and, on the left, to the Navy Yard and part of the suburb of Southwark. Towards the north, it is not far from the edge of a thickly built appendage of the city.

The district immediately south of the Asylum is marshy, and has long been noted for the prevalence of intermittent fevers; but the slightly elevated site of the building had been

generally healthy, and continued so, till the universal and distressing epidemic, which infested all the outskirts of Philadelphia, in 1822 and 1823. Even at this period, the persons resident at the Asylum, were far from suffering so severely as the adjacent neighbourhood; and, since those years, it has again become, in general, tolerably healthy. In 1819, 1820, 1821, and 1822, a lot, situated at a short distance, on which were deposited the contents of a number of privies, proved a source of great inconvenience, and some disease, at the Asylum. This focus of effluvia, together with the general and copious use of similar materials in manuring the adjacent fields, occasioned an intolerable stench, and generated diarrhœas, in the early part of the spring. When the grass and weeds, however, were grown sufficiently to protect the surface of the soil from the sun and wind, this effect entirely ceased; and I know not that any other inconvenience was experienced from the same source, unless we attribute to this, as may fairly be done, the destruction of the purity of the well. This formerly afforded very good water; and, since that period, it has much improved. When the corporations of Southwark and Moyamensing shall introduce, as it

is to be hoped they will, the Fairmount water into their streets, one remaining cause of inconvenience and ill health will be removed from the Children's Asylum.

Description of the Disease.—The ulcer of which we speak, may begin in many parts of the mouth. In by far the greater number of cases, however, it commences immediately at the edges of the gums, in contact with the necks of the teeth, and, most generally, of the two lower incisors. A separation is found here ; which exhibits a slight loss of substance at the extreme edge of the gums, and, as far as I have observed, a whitishness of the diseased surface. In some instances, though not very frequently, this is preceded by a slight swelling and redness. In this state, the disease may continue for a long time ; and I have reason to believe, that patients have remained thus affected, during the whole period of three months, for which I attended the Asylum. At one time, when the disease was at its height, threatening several patients with destruction, I found upwards of 70 children, out of a population amounting to about 240, more or less affected with these ulcerations. No remarkable change

is at this stage observable in the functions of the little sufferer, except a general air of languor and weakness. The appetite and the muscular activity continue, but are somewhat reduced; not sufficiently, however, to disable the child from attending school, taking the air, or continuing his ordinary practices. In this state, no symptoms of irritation have been at all discovered. The skin is cool during the day, no pain is complained of; and no account has ever been given me of any nocturnal paroxysm of fever. It would appear to be purely a state of asthenia. We are, however, by no means certain, that there was no concealed irritation in the system. We were, of necessity, obliged to depend, in a great measure, upon the reports of nurses, and other females: and these were liable to overlook, or mistake for mere weakness, the signs of an obscure disease. In this manner, commencing cases were frequently not discovered, and nothing was done till the affection had made further progress; and this continued until the ascertained existence of the epidemic in the house, combined with the recollection of its former ravages, had excited an alarm which led to an inspection of all the mouths of the children in the institution.

The disease, in this form, must be within the curative powers of nature; as, if this were not the case, we should hear of more numerous unfavourable terminations. It has seldom, however, if at all, been within my power to witness this tendency; and, when not controlled by a particular treatment, the cases have almost always either remained stationary, or increased in severity. Its first progress is, most generally, by extending to the edges of the gums round other teeth; frequently affecting a large portion of the dental arches. A very early progress is, however, mostly effected, down the length of the tooth, in the direction of the socket; and, in this way, the disease commits great and unexpected ravages. When it reaches the edges of the bony socket, the tooth begins to be loose, and when drawn, exhibits portions of the fang, including parts which had been contained within the alveolus, entirely denuded of their periosteum. Indeed, from observation, I should say, that the latter membrane was the part, which was the most peculiarly liable to injury and death from this disease; and it is by no means clear, to my apprehension, that this is not frequently the commencement of the complaint. The injury generally proceeds with augmenting rapidity;

especially when it has affected the deeper parts: and it is while in the act of rapidly spreading, that it occasions gangrene.

In the production of gangrenous sloughs, it much resembles the descriptions usually given of sloughing ulcers. A portion of the parts immediately subjacent to the ulcer loses its life; this rapidly separates: and, before or after a complete removal, a fresh slough is formed in the same manner. The sloughs are generally black, with ash-coloured edges. I have not been able to discern a change of colour, the production of vesicles, or any material tumefaction, as antecedent to the gangrene. There is, generally, by this time, an increased heat in the parts; with the sensation termed "calor mordens." The discharge now, for the first time, becomes acrimonious; giving pain when it comes in contact with cuts in the finger; and excoriations are produced on all parts in contact with the sloughing ulcerations; as the lips, the cheeks, the tongue, and the adjoining surface of the part where the ulcer is situated.

As soon as the external gangrene has reached the level of the edge of the bony socket, and frequently much sooner, the adjacent portion of the latter is found deprived of its life;

forming a necrosis. The death of the periosteum in the socket, at least that of the fang of the tooth, precedes, by some interval of time, that of any portion of the bone itself.

When gangrene is formed, a fever of irritation is generally developed. In regard to the time at which this takes place, there is a great diversity in different constitutions. It has appeared to me to depend, principally, upon the inflammation of the mouth, which is secondary to the original disease, and, in most cases, to arise from the acrimony of the discharge. It is aggravated by loss of rest, want of nourishment, and, probably, by putrid matter finding its way into the stomach. To the latter cause I also refer a diarrhœa, which almost uniformly comes on, towards the close.

There are accounts of a similar disease having begun on the inside of the cheeks. I have, however, never seen a well-marked instance of this; the cases which were supposed to be such, having, in every instance, been also found to exhibit ulcerations at the edges of the gums. That the disease spreads from the gums to the cheek, is a fact which I have often seen exemplified. It is, indeed, the most usual termination of bad cases. After producing gangrene and necrosis in the gums

and alveoli, and after the discharge becomes, as above stated, acrimonious, a gangrenous spot is not unfrequently found about the opening of the Stenonian duct, on the inside of the upper or lower lip, opposite the incisors, in some other part of the inside of the lip or cheek, or in more than one of these situations at the same time. Whether this be owing to excoriation from the discharge, or to some other cause, I cannot say; it has, however, in every instance which I have seen sufficiently early to witness its rise, been subsequent to the symptoms previously described.

When the gangrene reaches the cheek or lip, however, very active inflammatory symptoms are uniformly developed. In the cellular substance of these parts, they assume the well known characters which have been attributed to the *phlegmonous* species. We have a great thickening, forming, in the cheek, a large, rounded, prominent tumour, with great heat and pain. Sometimes redness is perceived externally; but, more frequently, the great distension of the skin of the cheek seems to empty the cutaneous vessels; giving to the part a smooth, polished, dense, white appearance, very much resembling the effect of a violent salivation. I have no doubt that this is

the tumour described by Poupart, and alluded to in an earlier part of this paper. Great thickness and hardness have always occurred, in the other situations where this gangrene has approached the external cellular masses of the face; in the lip, however, they are less remarkable, perhaps from the smaller amount of cellular matter. After reaching this stage, a black spot is frequently seen on the outer surface of the swelling. This spreads rapidly; and has always been, in my own experience, the immediate harbinger of death. It is proper to state, however, that I have heard it said, that cases had recovered in this city, in which the gangrene had produced a hole through the cheek. Under what physician's care this occurred, I have never learned.

In two cases it commenced in the fauces; and was marked by the same unsuspected progress. In one of these, the little patient was remarked to be languid, but had no positive external marks of disease. The mouth was examined, and found healthy; but no suspicion of the real situation of the disease was entertained, till after three or four days more, when he complained of a slight sore throat. A large gangrene of the tonsils, half-arches

and pharynx, was now found; and the event need hardly be told.

The closing stage of this affection is marked by large gangrenous patches in the gums; deep fissures between these and the teeth; the latter loose, or falling out; large pieces of the alveolar processes, often containing the roots of several teeth, in a state of entire necrosis; the whole lining membrane of the mouth suffering a violent excoriation; the whole adjacent external cellular substance, hard and swelled; large gangrenous spots in the inside of the cheek or lips, occasionally extending quite through to the outer surface; a total incapability to sleep, or to take the least food; fever; a swelled abdomen, and diarrhœa.

AN ACCOUNT
OF
THE DYSENTERY,
AS IT PREVAILED AT HYDE PARK, N. YORK,

In the Summer and Autumn of 1826.

AN unavoidable and unexpected delay in getting this work through the press, has furnished an opportunity of complying with a request of several of my friends, to add a short account of the Dysentery that has prevailed at Hyde Park this season, with unusual severity.

The early part of this year and during the spring months, an inflammatory affection of the chest prevailed to a considerable degree, and extended through the whole county. It assumed the different types of pneumonia, peripneumonia, &c. During the first summer months, the weather became extremely dry, so that from the beginning of May to July the greatest drought occurred, at this season, known in this part of the country by the oldest inhabitants. After this, the weather became rainy,

the temperature variable, and the changes sudden. The period of the drought was unusually healthy. After the damp weather set in, the fevers of the intermittent and remittent kind occurred to a moderate degree. They partook of such a character as to exhibit symptoms of more congestion, or increased excitement, than we usually meet in remittent fever at this season of the year.

About the first of August, a disease of a different description made its appearance at the landing, on the east bank of the Hudson river. It was a severe case of dysentery, combined with a fever of the character that had been moderately prevailing. The case terminated fatally. It is worthy of remark, that this case occurred in a temperate young man who had laboured about the dock and on a farm. He had not been in any way exposed to dysentery, or impure air. The banks of the Hudson here are elevated, dry, and rocky. This and one other were the only cases that occurred in that house, although it contained a large family. But several of the attendants who had been with him and gone away, took the disease. It spread regularly along the street east from the river about a mile, and from this, moderately about the country; so that the only family in

the street that escaped having more or less cases, (and in some instances almost every one had an attack) was a French family. Around this place there are four of these families, who all escaped the disease. North or south of this street, there were only a few cases. In several instances patients who sickened with it here, were moved out of the place; some of them some miles into the country, where they had the disease severely. The families to which those cases were carried, all took the disease, and in most instances they suffered very much from it; several of those cases terminated fatally. Except those families, very few cases occurred in those neighbourhoods.

But from all the information we have been able to collect, the sporadic cases were, in proportion to the number, the most severe; as among them the proportion of deaths were the greatest. When the dysentery made its appearance there seemed to be a struggle between that and the fever that preceded it, for the ascendancy in their action on the system, so that the cases frequently became perplexing and obstinate. It exemplified the observation long since made by Sydenham, and repeated by some of our older practitioners, that every epidemic return of dysentery re-

quired a study of its character anew, and from a want of sufficient time from the sudden and violent manner in which it commenced, to acquire this knowledge, may be, in some measure, attributed the fatal termination of the two first cases. In making this confession, I am no less candid than were Sydenham, Rush, and Bard, who admitted that they generally lost some of their first cases in an epidemic, before they could have an opportunity of studying the peculiarities of the disorder.

In some cases the dysenteric symptoms commenced with severity and run on several days, when they abated and a fever, more or less severe, became the principal disease. In others, the fever was antecedent, and continued some days, when it would terminate partially, and severe dysentery supervene, and frequently both were united in an active form. The termination of the active form of dysentery, was as sudden as it commenced. After the fifth of September new cases rarely occurred, and a fever of an active, inflammatory, remittent type succeeded, and spread more extensively around the country.

The mildest form of dysentery commenced with languor, wandering pains in the abdomen, nausea, and sometimes vomiting, followed by

mild diarrhœa, the patient still attending to his usual occupation. The stools gradually became more frequent as the disease advanced, accompanied with a dull heavy bearing down pain. The discharges were of a whitish slimy appearance, and streaked with blood. The skin was generally dry, but not hot; the pulse a little quickened, and rather fuller than natural. The tongue was of a fleshy red colour on the edges, and the middle covered with a yellowish white scurf.

Cases of this description were most successfully treated by emetics of ipecacuanha, succeeded by cathartics of senna and manna, with sulphate of magnesia or castor oil. The emetic produced the best effects when given in small doses, so as to produce considerable nausea before it operated. These evacuations, if the disease continued, were immediately to be followed by calomel and opium in liberal doses, as recommended by Armstrong. Five grains of calomel with as many of Dovers' powder, were repeated every third hour until the evacuations changed to a yellowish green. Fifteen or twenty drops of laudanum after each stool were frequently required to quiet the griping and tenesmus. With these remedies were also recommended the free use

of mild diluents, such as barley water, weak chicken tea, or a mixture of isinglass with gum arabic. Under this treatment, the disease rarely continued longer than the fourth or fifth day.

But in the more violent cases, all the symptoms assumed an aspect of severity. The skin was hot and dry. The tongue contracted in its substance, and thickly coated. On being thrust out of the mouth, it was very sharp-pointed, and had a peculiar tremulous motion. The pulse was sometimes firm and tense, but generally soft, quick, and compressible. This kind of pulse, probably attends congestive diseases of the abdomen where there is a partial reaction. The dejections were small in quantity, but frequent and extremely painful. They were principally blood, accompanied with small quantities of slime and detached portions of the mucous membrane. The tenesmus was almost constant, and in children, prolapsus ani very troublesome. The abdomen was not much distended, but very tender to the touch. The countenance appeared heavy, and the respiration laboured.

In the treatment of this variety, those cases in which reaction had not come on were most benefited, at first, by the warm bath and an

emetic. By this course, reaction was most generally brought on in six or eight hours. After this was fairly established, blood-letting was attended by the most happy effects. The quantity of blood drawn, was governed solely by its effects. In the commencement it was continued until fainting, or some degree of relaxation was produced. A dry hot skin was rendered moist by this remedy, and the excessive discharges of blood much less frequent and copious. At this stage of the disease, if the urgency of the pain required it, opium was given in doses from one to four grains; but when the pain was not severe, it was better to withhold it entirely, until further evacuations had been made by cathartics. While the tongue retained the peculiar thickened sharp form, and red and fiery edges, opium was seldom of service, often otherwise, although the pain sometimes rendered it indispensable. One of the best indications of the mitigation of the disease, and for the use of opiates when the symptoms otherwise indicated them, was the changing of the tongue towards its natural colour and shape. As a cathartic, that formerly mentioned, seemed, also, well adapted to this stage. After evacuations had been freely made, the bowels were still kept open

by mild cathartics and opium combined with calomel, in doses sufficient to quiet all pain and irritation, was continued until the disease was subdued. If the skin was not rendered moist, the pulvis antimonialis or ipecacuanha combined with the above remedies generally answered that indication. It was generally unnecessary to continue calomel after the stools had become of a yellowish green. The mouth rarely became sore.

When the dysenteric symptoms abated, and a remittent supervened, the treatment recommended for that disease, without any regard to the dysenteric affection, was adopted. It generally required a continuation of sudorifics, cathartics, &c.

THE END.

ERRATA.

- Page 13, line 17, *for town read towns.*
 .. 25, .. 3 from bottom, *for that read another.*
 .. 29, .. 2 from bottom, *for mustilating read stimulating.*
 .. 56, .. 8 from bottom, *for treating read tracing.*

AN
ESSAY
ON THE
EPIDEMIC CHOLERA,
AS IT APPEARED IN POUGHKEEPSIE,
IN A. D. 1832,
BY HUNTING SHERRILL, M. D.

AN

ESSAY

ON THE

METHOD OF COLLECTING

AS IT APPEARED IN FOURTEENTH

AND FIFTEENTH

BY HUNTER SHERRILL, M.D.

PREFACE.

As I have devoted some time and attention to collect and publish an account of the prominent epidemics of this county, which have been submitted to the public, and from the manner that the former edition has been received, I am induced to continue, though rather disconnected, an account of the Epidemic Cholera, as it appeared here. The great benefit derived from that Essay, in furnishing principles and modes of comparing epidemic diseases, and the effect of remedies applicable to various symptoms, induced me to make it a text book in the investigation and treatment of the present disease. I have yielded to disposition, and duty to myself, to offer this to the public, which may be considered a second edition, embracing additional matter.

When the epidemic of 1812-13 made its appearance in this state, it was introduced under a false or inappropriate name, that of spotted or typhus fever. If names are to indicate the nature of the disease, and with them are associated a particular course of treatment, for with this name was connected the idea that it was so much a disease of direct debility, that evacuations were generally or altogether improper in the treatment; but when that name or its influence was discarded, and the state of the system

system to relieve herself from a noxious material. The manner in which I have attempted to treat the subject, is somewhat by taking a view of the effects and marks of disease, as it invades the whole system, rather considering the alvine evacuations as a symptom, than an original disease.

In drawing up this account, I have endeavoured to plainly set down such facts as I have observed and known, and made such statements as facts will fully justify. In giving the description of the Epidemic Cholera, I have made two stages of premonitory symptoms before the disease is fairly formed; this is in accordance with my observation. The symptoms detailed, as attendant on a full formed case of the disease, are not altogether my own, but, connected with my own observation, they are such as are described by numerous European and American writers. The state termed collapse, is generally designated as the third stage; by this arrangement, it would be the fourth stage; but in many cases, this state takes place almost as soon as the disease commences, so that it would be difficult to designate between the third and this stage; and when the third stage is treated in the manner herein detailed, I have never known the fourth or collapsed stage take place, so that I am inclined to think, those two states are so intimately blended and dependent on each other, that it is a difficult matter to separate them into two distinct stages of the disease; but rather different states of the system, in the same stage of the case, and the state termed collapse, or the case existing without collapse, may and does occur first, or both together.

As the principles assumed, and mode of using remedies in this disease, are somewhat founded on my Essay on former epidemics that have appeared here, reference is frequently made to that, with merely noting it by marks of quotation or the page. The mode of comparing the character of epidemic diseases with others that have preceded them, adopted by Sydenham, answered me a very good purpose in arriving at a plan of treating the winter epidemic of 1812-13. I took nearly the same course in investigating the character of the prevailing Epidemic Cholera, without a particular regard to the name, which often misleads and frightens the public, and increases the mortality of disease.

It was the object to ascertain the peculiar state of the blood vessels, and other characteristic symptoms of the present epidemic, and to learn how they compared with similar states of the system in diseases which had preceded it, and what remedies had been successful in relieving those symptoms. This labour I had, in a great measure, prepared and at hand, for while investigating the nature of the different epidemics that had passed under my observation, their permanent characters were somewhat familiar. The state of the sanguiferous system and other prominent features of this disease seemed to correspond with those of the great winter epidemic abovementioned, more than with any other, and so much so indeed, that I felt warranted in adopting much the same plan of treatment, which had almost invariably proved successful in that; and I inferred, if the same treatment should succeed in this, the work of inves-

tigating the subject would be much abbreviated, as the principles and mode of treating that disease were somewhat familiar, as they were detailed at large in my Essay upon that subject. In drawing up this paper, I was under the necessity of referring to that, to endeavour to explain the principles necessary to be shown.

It is with much diffidence that opinions are offered on a subject that has engaged so much talent and attention, or to propose any peculiar mode of treatment; but it is presumed, that sufficient authorities are furnished to prove the correctness of the opinions here advanced, and that the favourable results will warrant the application of the remedies proposed. Although my opportunities for observation has not been as extensive as some—yet, as several hundred cases appeared here in the County Poor House, in the village and in the adjacent hamlets, among which I had a full share of intercourse, my chance for observing its character and the effects of treatment, was sufficient to learn its results, and I have faithfully related what I have seen and experienced. If taken together, this little Essay should be useful to the profession, or prove advantageous to those affected with the disease, the Author will be gratified, and amply compensated for his labour.

ESSAY.

SYMPTOMS.

ABOUT the time when the Epidemic Cholera appeared in this village, in a confirmed manner, some changes took place in the character of diseases, and in the situation of the health of the inhabitants, which subsequent observation showed to be precursory symptoms of the cholera. A langour and uneasy sensation was complained of by many, and diseases of the stomach and bowels were very common. At length cases of diseases occurred, attended with symptoms of unusual severity, and somewhat novel; they excited a great deal of anxiety and alarm, and finally engaged the attention of the public authorities. As has generally been the case, professional opinions were divided, as to the nature of the features of the new complaint that occurred. During the prevalence of the epidemic, every person in the village seemed to be affected with the primary premonitory symptoms; all had a preternatural red tongue, which sometimes was covered with a whitish slimy moisture; the pulse was small, quickened and rather chocked, it seldom beat free and easy, and in some cases it was very obscure, while the person was about and apparently in good health. In most persons, there was an uneasy sensation of the alimentary canal.

What was considered the premonitory stage, was a diarrhœa, pain and uneasiness of the stomach, nausea or vomiting, and a difficulty of breathing, as though there was a deficiency in the supply of oxygen. When the symptoms passed this stage, the features constituting the formed state

of the disease, have often been enumerated, and were about the same here, as were noticed to have existed in other places. Connected with the aforementioned symptoms, they consist of pain and uneasiness of the bowels, and more particularly of the stomach; a weighty or vacant sensation, a tight fullness of that organ, diarrhœa, vomiting, the discharge generally watery, whitish and fluculent, sometimes dark brown or reddish; spasms generally more or less severe across the stomach, extending to the extremities; in some cases there are no spasms; coldness of the extremities and of the body; pale, purple or leaden colour of the skin; hands and feet moist; fingers shrivelled, withered and soaked in appearance; features livid; eyes sunken and surrounded with a dark zone; voice small, feeble, sepulchral; respiration very laboured; tongue in the moderate cases, red, furry, covered with whitish slime, or a white erect scurff, sometimes entirely clean and red; in violent prostrated cases, tongue pale, cold, blueish; pulse in mild cases, sometimes tense, generally in all, soft, small, slow, gurgling, nearly imperceptible, or entirely so.

Some have had excessive thirst, others very little—no one case is marked with all those symptoms, but more or less of them are present to constitute the disease; but the invasion is not always in a regular train, sometimes it attacks suddenly, without the premonitory symptoms, except a red tongue and an altered pulse; this I believe always attends.* Those symptoms refer to the incipient stage of the disease. The appearances that it exhibits, in the progress, depend much upon the mode of treatment. If the case has been a severe one, and approaches toward a cure, the tongue becomes red-

*While an epidemic prevails with those primary premonitory symptoms existing in every person, can they have the common cholera morbus, which seldom or never has a red tongue, previous to the attack?

der, and a fiery, lively crimson marks its edges, the tip is glossy, the scurf more white and fixed. When evacuations are not made, and the case progresses unfavourably, the skin remains torpid, cold, or clammy, the pulse sunken or imperceptible, the tongue cold, blueish, pale, contracted, with a yellow scurf, great distress at the stomach, burning, thirst, indifference, brain affection, sometimes rapid and sudden dissolution. The pulse always rose after early blood-letting, and other evacuations, and sometimes after vomiting only.

Blood drawn from almost any person, even while about, was very dark and thick; but in those cases where the patient was prostrated, it was still more so, it became more florid and thin after bleeding; it seldom run in a stream at first from the orifice, but drained down from the arm, similar to blood drawn from a drowned person.

Accounts of dissections made in different parts of Europe, and also in this country, discover that the heart and its cavities, as well as the principal arteries and venous trunks are filled with congealed blood.†

“The heart has been found to have soft spoats in it.” “In the brain, the membranes are thickened and the vessels are injected;” “the inflammatory state does not differ from inflammations of mucous membranes generally;” “venous congestions are shown by thick black blood in the vessels, and traces of injections in the membranes.” “In the cranium in Russia, there was found collections of thick black blood; the lungs and the heart were filled with the same substance.” “Inflammation of the villous coat of the stomach and bowels, &c.” “A fulness and distension of the abdomen;” “the stomach and bowels do not always show marks of inflammation, but some parts of them are injected and reddened.”*

* These appearances are taken from Sterling's Collection of Reports from various parts of Europe, Bruissais' Lectures, Francis' Letter, &c.

There was a deficiency in the supply of oxygen in the blood, the evidence of which was frequently apparent before the attack, by heaviness in the respiration; the sluggishness of the pulse, &c. ; while labouring under a severe attack, the patient would want the door and windows opened, and inhaled super-oxygenated air with avidity.

A rain storm checked the disease for the time, but in a day or two it returned, perhaps, with more severity. A black typhoid state of the tongue, does not take place. Typhoid delirium seldom occurs, but instead of it a kind of indifferent, stupid, quietness, and the patient meets a fatal termination with a seemingly perfect indifference.

When we attempt to inquire into the remote cause of epidemic disease, we are lost in an extensive field of conjecture, which furnishes a fruitful soil for theories, reasons and causes founded on hypothesis; and theorists have arrived about as near explaining the cause, as Sydenham confessed he had, when he said, he could not tell it better than, why his horse like other horses grew to a particular size, and then stopped. This, like other epidemics, no doubt, is caused by some noxious material floating in the atmosphere, or some peculiar change that takes place in the air, which has a tendency to assimilate animal matter to its own like, to suddenly impair the health, and prove destructive to human life; whether the material causing this epidemic, conveyed into the human system, operates on the nerves, the blood, the blood vessels and muscular fibres, or on all of them, opinions may vary, but its effects seem to be to excite inflammation or effusion in the villous coat of the stomach, bowels and the mucous membranes, to derange the functions and destroy the balance of circulation, so as to produce congestive accumulations in some part of the system, attended with inflammatory fever.

Symptoms of the epidemic cholera showed themselves in this village, about the first of July. About the tenth,

a man sickened in Union street, his attack was severe, attended with vomiting and diarrhœa, he was taken to the poor-house, and there expired in a few hours; some other cases of a similar character, occurred very soon, attended with the like symptoms, which also terminated fatally.

On the 22d of July, B. Mackey, (in Water street,) who had been labouring under diarrhœa, was seized suddenly with spasms, he very soon became cold, pulseless and purple, and expired in four hours. This was the first case reported by the board of health as malignant cholera, after this, cases more or less violent occurred daily. The subject of treating the new disease, became a topic of interesting and rather anxious discussion, from all that I could collect from the accounts published respecting the epidemic, there appeared to be no very well settled course of treatment detailed, and none I believe that had proved very successful. The subject appeared to be surrounded with a great deal of obscurity and uncertainty. When I became acquainted with the disease, I observed in the symptoms exhibited, connected with the accounts given of it, a great similarity in many of its features to the epidemic of 1812-13, for it is a state of the blood vessels, and situation of the system generally, that furnish indications for the treatment, and not the name of the disease.

In the Asiatic Cholera, a similar sinking and prostration at the onset, often takes place, but in a greater degree—and occurs more generally; there is, also, a similar sinking, small, soft or imperceptible pulse—and the cold purple skin is not unlike what often occurred in that disease, in that a pain, weight, and sense of heaviness across the heart and lungs took place. In this, similar symptoms across the heart and stomach occur, and both were attended with labored respiration—and in each, symptoms of brain affection

are exhibited on post mortem examinations ; traces of inflammation, congestions, and engorgements of some of the internal parts, particularly in and about the heart, large vessels and cavities, and its immediate vicinity, shown on dissection, are very similar in the two instances.* In this disease, those traces of congestion appear to be more confined to the heart, stomach, and abdominal viscera. In that, the stomach and bowels were sometimes disturbed by irritations that produced vomiting, or alvine evacuations; in this, though most generally before the attack, they are not always affected with diarrhœa, the small, depressed, and imperceptible state of the pulse, and the state called collapse, is not altogether a new feature of disease ; it occurs in other cases of violent epidemics, and the best writers refer those symptoms occurring in the incipient stage of disease, to excessive morbid action, transcending an ordinary inflammatory state of the system. When this state takes place in the incipient stage of disease, while the blood vessels are full, the muscular fibres immediately previous performing their vigorous action, and the secreting vessels all in full operation, it is difficult to conceive how this can be called a state of debility from abstraction or exhaustion; if not, it therefore is a fair inference that it is produced by a depressed congestive state of the blood vessels; and that the sudden deaths that take place in this epidemic, as well as in many other cases, are caused by a rapid formation of disease, or a loss of balance in the circulation, and accumulation of fluids in and about the heart, brain, or other vital organs.

It is very questionable whether this state of disease should be termed *collapse*, for as it regards the vital functions, it appears to be distension and fulness, and the patient dies, not from a train of exhausting disease, but from mechani-

* In Mann's Medical Sketches, and the Medical Repository, are extensive accounts of dissections of the winter epidemic.

cal obstruction and distension, depressing the action of the heart, large blood vessels and nerves—suffocating and interrupting their action.

INDICATIONS OF TREATMENT.

In this disease, it is said, that there are no uniform internal marks of disorder, exhibited on dissection, that will account for its fatal effects. This circumstance would seem to show that the morbid agent producing it, acts on the whole system, the derangements that take place in the circulation, exist in some vital part, and the most uniform marks of internal congestion, as reported by dissection, are in and about the heart, and the villous or mucous coat of the stomach or intestines, are generally agreed to be inflamed or suffused with blood—to prevent this state or remove it, would be one indication in the cure. Most or all persons residing in the epidemic atmosphere, by the state of their blood vessels or appearance of the tongue, show signs of increased action, or a depressed state of the system, before the diarrhoea comes on: while the diarrhoea lasts, the internal irregularity is more evident, and the tongue shows stronger marks of increased action; when the disease is more confirmed, those symptoms are more increased, except when the case is very severe, or the patient is prostrated, then the pulse recedes in its action, and becomes more obscure or imperceptible, the tongue loses its lively redness, and assumes a pale, livid, blueish appearance, is coldish, dry, clean, &c.

Again, as the blood vessels are unloaded, and the stomach evacuated of its contents, the pulse raises, becomes more perceptible, firm, &c.; the tongue generally changes, exhibits a redder appearance, the scurf is more white and fixed. (See the two first cases.)

The value of those marks of disease in obscure cases, may be appreciated, among others, by consulting Rush's works, Dr. Hosack's Lectures, &c.

If a mild case of disorder exhibit marks of an inflammatory character, is a violent one of the same kind less so? If a vessel with a light freight is liable to sink, will not an overloaded ship require more of her cargo thrown overboard to prevent her foundering? In pursuing the analogy of other diseases, it is well to inquire which furnishes symptoms nearest allied to those exhibited by this. Epidemic pneumonia, when the heart and lungs are inflamed, or in a congestive state, the pulse is small, soft and obscure, the surface is sometimes cold and purple; in gastritis, the pulse is very similar; in dysentery, it is small, soft, and sometimes nearly imperceptible, (page 182,) and in some cases the features are contracted and cadaverous, the eyes sunken, and marked with a purple areola; in congestions of the brain, the pulse is small and obscure; this disease exhibits the marks, on dissection, and traces of morbid derangement, furnished by all those disorders. In all those cases mentioned, blood-letting is a general remedy; whether in this complaint, the heart and arteries become paralyzed, or whether it is an accumulation of blood in them, that prevents their propelling it to the surface, is difficult to conjecture; the fact is about all we can know. The pain, weight and uneasy sensation at the stomach, which is a very uniform, and a troublesome symptom—cannot well be accounted for from any anatomical examinations, or as some of my medical friends have suggested, from the effect of remedies; but the fact we do know, that vomiting is an excellent remedy for it, but that nothing relieves it equal to blood-letting, and until this symptom is removed the patient does not recover.

When the case is in the premonitory stage, with simple derangement of the bowels, the ordinary astringent cordial, or anodyne remedies, will frequently check the diarrhœa and afford relief; but if this symptom is very obstinate, a cathartic or emetic, or a moderate bleed-

ing is necessary. When the primary premonitory symptoms of a preternatural red tongue, and depressed state of the pulse, had passed over, or was cured by bleeding and purging, or other apparent treatment, at any time during the prevalence of the epidemic, as far as I could observe, the patient escaped the disease.

If we take the situation of a patient, in a full formed case of the disease, without regard to name, by adopting general principles, we should be disposed to relieve the depressed state of the blood vessels, to determine to the skin and equalize the circulation; all practitioners must be aware of the difficulty of procuring a free action of the pulse in the incipient stage of the disease, or of producing a warmth or moisture of the skin, while the blood vessels are full, or the bowels deranged or in a torpid state. The remedies generally resorted to for this purpose, are blood letting, evacuation from the stomach, and sudorifics. Blood letting and vomiting, are the most efficient means of producing perspiration.

Objections are raised to the use of the lancet, because the pulse is small and obscure. I believe in the whole of this and my former Essay, it is sufficiently shown that this circumstance taking place in the incipient stage of the disease, is almost invariably an evidence of an over or congestive action. The same objection was made in 1812, and the fruits of it was a fatal termination of the disease. Objections are also made, to evacuations from the stomach, and even some practitioners have expressed surprize, that purgatives were recommended; it is not surprising that such practitioners should come to the conclusion, that the disease was incurable. Do not practitioners bleed and vomit and purge, in diarrhœa and dysentery, to advantage? and are not those remedies used with success in all the diseases, to which I have compared features of this?

In the account of the epidemic of 1812-13, page 46, it is

remarked, that blood-letting "without being followed by free evacuations from the stomach and bowels, reaction would not readily have taken place, and then bad effects might have ensued; it requires a steady, persevering use of all those remedies, to secure a successful result; by relying on sweating, heating remedies, in this state, the depression increased, and carried down the pulse, instead of raising it;" in this important respect, the two epidemics agree. Although emetics throw off the irritating (or if you please) poisonous matter, from the stomach, which checks the diarrhœa. By the mechanical effect produced by them, the fluids are determined from the centre and vital organs to the surface; but they do not relieve the overloaded congestive state of the large blood vessels, without the aid of blood-letting; neither will blood-letting relieve the morbid state of the stomach; therefore, it is of the utmost importance to combine them: this combination produces more salutary effects in this disease, than any set of remedies have on any other occasion.

Having often been foiled in the operation of emetics in torpid states of the stomach, particularly in congestive diseases, and observing that stimulating emetic materials, in some cases, operated in a very salutary manner, I concluded to select such an one. I first used equal parts of ipecacuanha, and black mustard seed; as this was somewhat harsh in its action, blood-root was added, making a powder of equal parts of those articles. This was given in infusion, either as an emetic or in moderate quantities as a sudorific. (When the term infusion is used in this essay this preparation is alluded to.)

It is objected that in the state called collapse, blood cannot be obtained; if it cannot by the means herein pointed out, the exhibition of the emetic infusion will so far arouse

the circulation as generally to be able to obtain blood. If such a state of torpor has taken place that neither of those remedies, together with external warmth and friction, will produce the desired effect, the case may be considered hopeless, (I have seen but two such,) in some cases attempted to be treated by vomiting without bleeding, although the action came out, the brain became so affected as to require bleeding afterward to save the patient.

In the County Poor House, two cases, one collapsed, the other not, were subjected to a treatment of the usual external remedies and emetics;—one, a lad, not collapsed, recovered after a tedious period; in the other reaction came out very well, but it was attended with a depressed pulse and a disposition to a cold skin.—This one died the third or fourth day with brain affection. The loss of thirty ounces of blood, which I urgently recommended, would no doubt have saved that.

METHOD OF TREATMENT.

In correspondence with those views, in regard to the nature of this epidemic, I concluded to adopt about the same mode that I pursued successfully in the treatment of the epidemic of 1812–13; an imperfect account of which is detailed in my *Essay on Epidemics*, from page 22 to 42: which treatment consists principally in blood-letting and emetics in the early stage. Among the different remedies and modes of management for the prevailing epidemic, I have noticed no plan of treatment in which the combined application of these remedies were recommended, and none, in which their use had been proposed, in what is termed the collapse stage, when the pulse is depressed or imperceptible. In the incipient stage of this disease, those remedies appeared to be indicated and promised a chance of affording relief; so much so, indeed, as to be worthy of a trial. The first case that came under my care, that was the sub-

ject of medical treatment, was a severe, prostrated, sunken case; and while this was under treatment, another more prostrated, sunken, and pulseless occurred. In those cases I commenced the practice of small bleedings, combined with emetics, external warmth and friction to the surface; I discovered that the pulse rose in one case after the loss of four ounces of blood, and the vomiting commenced. In the other the pulse was not perceptible until after the second bleeding. About three ounces was taken from a lad, and a girl 15 years old; after which, in both cases, the pulse became more fair, and the skin warmer, and, eventually, a free perspiration ensued, in the event those patients both recovered. As these were pioneer cases, which embraced important facts, and the application of remedial agents founded on the preceding principles—they are drawn up and subjoined at length.

The result of those cases involuntarily produced a pleasing train of reflections, and a hope that for this epidemic, which had traversed a great portion of the world, and spread desolation and dismay in its progress by its pestilential influence, there might be adopted a successful mode of treatment. Encouraged by the success in those and some similar cases, this plan of treatment was finally adopted, and steadily and uniformly pursued throughout the prevalence of the complaint; and such was the success attending it, that our confidence in its correctness increased as we progressed, and more than one hundred persons, with well formed cases, many of them in a very sunken state, are now experiencing its beneficial influence.

At the commencement, when the prostration is not very great, and the pulse is tolerably perceptible, the bleeding may be free at once, and very frequently; a free bleeding and an emetic breaks up a severe attack, and puts an end to the disease. In one of the most severe cases that has

occurred in this village, attended with copious rice water evacuations up and down, violent spasms, and an imperceptible pulse, by three copious bleedings, and a free exhibition of the emetic infusion, was relieved so as to be out of danger in twelve hours.* When there is great prostration at the onset, a temporary use of cordials and stimulants may be advisable; but where they have been persevered in, the patients have uniformly died, as far as our observation has extended; and when they are resorted to, they ought early to be omitted, and recourse had to the evacuating remedies.

But in cases of great prostration, or when the sinking depressed stage comes on, with a pulse nearly suspended or imperceptible, the bleedings ought to be small, and often repeated, if a large quantity of blood could be taken, it would not be advisable, and would be attended with considerable risk, by too rapidly emptying the blood-vessels. Spontaneous hemorrhages, which are slow and gradual, are most always succeeded by recovery, (see pages 38 and 46,) "by bleeding in small quantities, we give the viscera an opportunity of emptying their blood into the vessels, and thereby prevent their collapsing from a sudden abstraction of the stimulus they contain;" [*Rush.*] In those cases, it is often very difficult to obtain blood, but by immersing the arm in very warm water, blood can generally be procured; it sometimes passes only by the drop at first, and is always very thick and black, and seems to be deprived of its vital principle.† It had the same appearance in the epidemic that prevailed during the late war, and this state was relieved by the same remedy. In four cases, two in private practice, and two in the County

* J. Klapp, Esq.

† In this stage the blood is dark and thick, in the advanced typhoid stage it is dark and thin, see 72.

Poor House, the first blood drawn, remained black and unchanged in the bowl; it seemed to have lost the property of attracting oxygen from the atmosphere, as blood generally does when thus exposed; and when taken from all of those patients afterwards, and exposed to the air, it absorbed oxygen, and assumed a florid colour; they all recovered; the same circumstance occurred with some others—the blood drawn at a second or third bleeding, sometimes exhibited a sizzly coat, when at the first it did not. (40)

From accounts published of the epidemic, I observe the patient is often considered in a hopeless situation, when the stage called collapse, takes place. It is with great respect, and due deference, to the opinion of those worthy members of the Medical Faculty, that have conceived this to be the case, that I state this to be premature and unadvisable; it is true, that this is a state that appears very unpromising, and where great perseverance is required; but it is here, also, that the most important benefit is to be derived from the use of those remedies. In the language of my late and venerable friend, Dr. S. Bard, “the prescriber should feel that he has a giant by the throat, and must struggle for his life to overcome him. As the blood-vessels are unloaded, and the stomach evacuated, the pulse raises, and becomes fuller and fairer, (42.) This practice I introduced in the treatment of the epidemic of 1812–13, and many—very many, now in the enjoyment of good health, owe their lives to the influence of this doctrine and those remedies, whose bones otherwise would now have been mouldering in a state of decomposition. Some account of these remedies and principles, and their application, I have endeavoured to give in the Essay before alluded to—pages 33, 38, 40, 42, 46, 72, 131, 136, 182, &c. This mode of practice, of bleeding in small quantities, was introduced into the army, during the

same epidemic, by Dr. Mann, Chief Surgeon to the Hospitals of the Northern Army in the late war. "The doctrine is laid down, and very beautifully illustrated by Dr. Rush, in various parts of his writings; and for its advancement and mode of using it, the profession is indebted, I believe, to the same gentleman," (Note A.) Cases of severity require equal to two liberal bleedings, and frequently more. Some patients have lost forty or fifty ounces of blood; and in two cases, after the arterial action came out, they assumed such an inflammatory character, that it was found necessary to take about one hundred ounces of blood, to effect a cure. In every case where the blood-letting has been liberal, and the emetics have operated favourably, a recovery has ensued. Blood-letting brings back the vessels from a paralyzed and depressed state, towards a healthy grade of action; it checks the vomiting; it restrains the diarrhoea; and it, more readily than other remedy, removes the excessive irritability of the stomach, that in some cases is an attendant on the disease; it unlocks the pores of the skin, and predisposes to perspiration. In many cases, in the progress, particular attention to the spontaneous evacuations from the stomach and bowels are necessary, but in general, the blood-letting and emetics in a great measure control them. When those remedies are not used to that extent, or the alvine evacuations continue, the ordinary astringent remedies are necessary, and it is sometimes policy to combine those remedies with the other treatment. During the pain and spasms, opiates are advisable, but in as small quantities as will answer the purpose—for opium is a doubtful, or not an advantageous remedy in this state of disease, (we have the best authority for this remark,) particularly unless connected with evacuations. And, indeed, in the mode of treatment here proposed, opiates become, in a great measure, unnecessary—for the pain and

spasms soon disappear ; during the cold or sinking stage, external warmth, friction, or stimulating applications to the surface are very serviceable ; but the reliance placed on this part of the treatment is very much overrated, for without remedies combined with them, calculated to effect a change of the blood vessels and state of the stomach, they promise but little success, and with the use of these general remedies, it has appeared that the external ones are, in a great measure, very soon superseded. During this stage, the patient is very anxious to obtain vital air ; the blood, the skin, and the manner of respiration, evidence that the system is very much deprived of that property ; therefore, it is advisable to avoid having more persons about the patient, or in the room, than is necessary ; and it is of much importance, also, to introduce vinegar, or other materials, that by their decomposition, furnish oxygen.(B.) The practice of burning tar, rags, or any other material about the patient, that will destroy the vital principle of the air, is very injurious. By the slow and sluggish circulation of the blood through the system, it is so much deprived of its vital principle, that an increased supply is necessary ; this furnishes a forcible argument in favor of blood-letting—for that not only abstracts a portion of the blood, and thereby prevents inflammation and congestions, but by abstracting a portion of that fluid, a smaller quantity remains to be supplied with oxygen. There is no doubt, but from a deficiency in this supply, the patient sometimes suddenly dies ; and by this means, the facility of the circulation is increased, and the sooner the remaining quantity is supplied with this important vital property. In the torpid state of the stomach that frequently takes place in this disease, particularly in the prostrated congestive stage, ordinary emetics are not sufficient to arouse it into action ; for this purpose it is necessary to add some stimulating emetic material to them. The preparation I have

used, and which appears to answer the best purpose of any that I am acquainted with, consists of powder of blood root, ipecacuanha, and black mustard seed, in equal parts, given in infusion, (as before mentioned.) This emetic used, does more than merely to evacuate the stomach; by its stimulating quality, it quells the teasing irritability of that organ, which so often exists—changes the nature of the secretions, and operates as a powerful sudorific, to allay excessive burning pain and thirst that sometimes attend the case—to dilute the fluids, and furnish material for perspiration. It is very important to allow the patient liberal portions of drink—for this purpose, cold water is generally preferable; ice may be retained on the stomach better than any fluid in some cases, and in such it is very serviceable. To deprive the patient of drink, in this disease, is a very cruel, unnecessary, and injurious practice.

If the complaint is not checked in its progress by the first course of blood-letting and emetics, as it frequently is, venesection should be repeated, and the raising pulse and reaction is to be met with the lancet. As the re-action has a chance to come out, the inflammatory character of the disease frequently shows itself: a good rule is, to continue the bleedings until the purpleness of the skin disappears, the florid redness recedes from the tongue, the distress leaves the stomach, and the inflammatory symptoms are in a great measure subdued; in the progress, cathartic and sudorific medicines are of great advantage. When the case assumes a protracted form, the bowels often become torpid and difficult to be acted on by cathartics; in this situation, a free use of purgative medicine, often repeated, is of essential service. During the treatment, opiates, to allay the irritation and pain, may be useful after those evacuations are made. When they are used more than for this purpose, in many cases, they are injurious, by rendering the disease more

obstinate. As a cathartic, calomel, combined with other purgative articles, answers a very good purpose, but it is doubtful whether it possesses particular advantages over some others—magnesia, rhubarb, jalap, Epsom salts, senna and manna, were used in various ways and combinations—but magnesia, rhubarb and salts combined, from their salutary effect, was generally preferred.* During the premonitory stage, a brisk cathartic, or an emetic, followed by opiates and astringents, would frequently carry off the approaching disease. Opiates and astringents, or stimulants, sometimes checked the diarrhœa of themselves, when they were used without being connected with evacuations, and very often suppressed the discharge, and pain or uneasiness which afterward returned with an increased severity, and predisposition to a violent attack.

After the first stage of the disease was passed, a febrile state, in some cases, ensued, which continued several days; when this state was attended with a coldness of the feet, or a lividness of the countenance, and a livid redness of the margin of the tongue, with a white fur on it, as there nearly always was—blood-letting was used with decided advantage; after that, a free course of cathartics and sudorifics combined with these, were very serviceable. In all stages of the disease, when they were not interfered with by other remedies, sudorifics were very appropriate, and antimonials seemed to possess particular advantage for this purpose.

In a few instances, in the progress of the case, calomel was exhibited oombined with other remedies, in a manner to produce mercurial salivation; although those cases reco-

* The property of magnesia to absorb acrid matter in the alimentary canal, and the advantage of salts as a refrigerent, have a tendency to allay burning heat, and relieve the inflammation of the internal coat of the alimentary canal, give preference to them; and as far as there might be a specific benefit, on the theory of Dr. Stephens, in administering neutral salts in malignant disease, we availed ourselves of that advantage.

vered, others done as well in which it had not been used, and in some cases they appeared to do better. To place reliance on calomel, to produce its action on the system, to overcome so rapid a disease, seemed to be a remedy of doubtful efficacy, for it is too slow in its operation to promise very flattering hopes of success, and in this state of disease, the difficulty of its entering the lacteal absorbents is much increased. Although, under mercurial treatment, the patient may sometimes recover, but by pursuing that plan, the purgative course is in some measure prevented, which in the congestive state of the abdominal viscera and other parts of the system, in this disease, is of more importance than in most other complaints, and by the course here delineated, they recover in much less time, and are much freer of disease afterward. While the prescriber is watching the tardy and uncertain operation of mercury, the ravages of so violent a disease frequently interrupts the action of the vital organs, and death, with a fearful grasp, arrests the patient from his hands. That situation of the patient which is often described and termed a secondary stage, attended with brain affection, I have had, in a number of instances, the unpleasant opportunity of seeing, but have not had occasion to prescribe for in any of those that I have attended from the beginning. "*Cut short the inflammatory congestive symptoms at the commencement, and nothing malignant will occur.*"—ARMSTRONG.

There is one class of patients in which it is advisable to make an exception to this plan of treatment, viz. those of intemperate habits and impaired constitutions; in these, blood-letting, small or large, according to circumstances, and evacuations from the stomach and bowels is advisable; those remedies are to be succeeded by liberal doses of calomel and opium, in the manner that is recommended by Arm-

strong, in delirium tremens; by the early and prompt use of these remedies, many of those cases may be saved.

From the results of treatment, it is proved that this disease is very much under the control of remedies, and I believe it to be much more so than the epidemic of 1812-13. It feels the effect of remedies quick, as it invades suddenly, and runs its course rapidly to fatality, when neglected or indecisively treated; so it often yields before the influence treatment, in a proportionate speedy manner, and leaves the patient free of disease.

As this epidemic subsided, a fever of a remitting, congestive character supervened, attended with uneasiness, and a painful irritation of the stomach, which in its progress exhibited severe inflammatory symptoms, it was curable by the same general mode of treatment that was adapted to the epidemic.

From the commencement of the disease to its decline in this place, was about two months, though sporadic cases occurred after that period.

The number of cases of epidemic cholera, that has taken place in this village and in the township, cannot, with certainty, be ascertained; they have been variously estimated. The medical men, in a laudable zeal in attention to their patients and their profession, and some other circumstances, omitted to make reports; and the Board of Health, while engaged in their arduous duty, it appears, kept no register of the cases.

The number of deaths in the County Poor House, situate within the limits of the corporation, according to the books, including the Hospital, were

In the village, about	96
In the township, and out of the village, about	65

14
some of the deaths were said to have been produced by other diseases.

Three or four deaths occurred, in which little or no medical means were used.

Taking a list of cases in which the third stage of the disease had fully formed, many of which were attended with sunken, prostrated, collapsed symptoms, which were exclusively treated by the remedies herein detailed, the proportion of fatal ones, were less than one in twenty. Three or four others, which had been under the use of other treatment, in which those remedies were used, from the severity of the case, or its advanced stage terminated fatally.

The fatal cases were all intemperate habits, or very unfavourable ones.

Three or four deaths occurred in which little or no medicine was used. In some cases the patients were attended in which the third stage of the disease had fully formed, many of which were attended with unusual prostration, especially in those in which the progress was treated by the method herein detailed, the proportion of fatal cases was less than one in twenty. In those cases others, which had been under the use of other means, in which those remedies were used, from the severity of the case, or its advanced stage terminated fatally. The fatal cases were all intemperate habits or very im-

THE following are drawn from a list of cases, the notes of which were taken at the bed side of the patients. They will serve to illustrate the principles of treatment, and application of remedies contained in the foregoing essay. Those communicated by Mr. Starr, were drawn from notes taken in the same manner, while attending at the Alms-House.

CASES.

G. P. aged 14 years, had been in company with Mackey, who had died of cholera on the 22d; was attacked on the 26th of July, with diarrhœa, succeeded by vomiting, which soon became severe. At 12 o'clock, A. M., I saw him; these symptoms were accompanied with sinking and prostration; pulse nearly imperceptible; extremities cold; skin purple; features sunken; eyes livid; voice sepulchral; tongue cold; great heat, and a burning sensation at the stomach; catarrhal affection; urine suppressed; spasms of extremities. Treatment—injections of very warm water returned colder—external warmth and friction—arm held in a pan of warm water—vein opened as soon as possible, four ounces of blood was drawn, this was very thick and black; on standing, it did not change color or consistency by exposure to the air; faintishness ensued, and patient soon aroused up,—the pulse became more free—opiates were given to allay the pain—all liquids were rejected as soon as taken; ice was given, which was retained a short time, and all was vomited up; the emetic infusion was given, so as to produce free evacuation from the stomach—the matter discharged was very white and glary. At 3 o'clock, venesection again repeated to four ounces—the blood still very dark and thick; the pulse rose after the second bleeding, and the warmth of the skin increased; the infusion was given in smaller quantities, to produce a sudorific effect, and occasionally increased, to produce vomiting. 8 o'clock, is in a tolerable perspiration; omitted the moist hot remedies, and used in their stead, externally, dry warm ones, with

friction; spasms have abated, and the patient has occasionally vomited; bowels open; respiration laboured; voice peculiar, small and fine; face and tongue still cold; pulse 100, soft and depressed; an erect, whitish scurf formed on the tongue; a florid redness of its substance appeared through the scurf; venesection repeated to eight ounces; faintishness ensued; pulse soon rose, became more firm and full; the infusion continued with other sudorifics. 11 o'clock, P. M. continues much the same—same remedies continued.

28th, 8 o'clock, A. M., Patient vomited several times, and had several stools, which are more bilious; perspires freely; has slept considerable; pain and spasms gone; took calomel, James' powder, and jalap, every three hours, in doses sufficient to produce a cathartic effect, and continued cold drinks. 8 o'clock, P. M., perspiration continues; inclines very much to sleep; had passages from the bowels, which are more feculent; passed no urine; repeat the medicines, add spt. nit. dul. and an infusion of senna and manna.

29th. Has passed urine freely this morning for the first; has vomited occasionally, and had several stools, more natural; fever continues; inclines to sleep; disposition to faint; countenance inclines to dull redness; pulse soft and obstructed; tongue red on the edges, covered with a white erect scurf; venesection—six ounces taken away; blood now florid; antimonial, sudorific and cathartic remedies continued. After bleeding, faintishness entirely left him; his countenance became clear and pale; perspiration ensued; repeat the sudorific medicine. 31st, is entirely free of disease, up and walking the room.

S. I. Filkin, aged 14 years, attacked on the 29th of July, with diarrhoea and vomiting; discharges of a rice water consistence and colour. 9 o'clock, A. M., suddenly prostrated and sunken, nearly motionless, except the

spasms; pulse entirely imperceptible; burning sensation at the stomach; respiration laboured; skin very cold, and of a purple leaden hue; eyes sunken, and features contracted; fingers withered and soaked in appearance; voice small, fine, faint and peculiar; tongue pale and slimy, with red edges; urine suppressed; catarrhal symptoms. Treatment—laudanum and æther given; externally, warm moist clothes and friction; arms immersed in warm water, and as soon as possible a vein opened, the blood came only by drops, but by perseverance, three ounces was obtained, which was very black and thick; it remained unchanged in the bowl, and did not attract oxygen by exposure to the air. The infusion was given, so as to produce vomiting, the discharges from the stomach were white and glary. 12 o'clock, becoming a little warm; pulse still imperceptible; venesection repeated to three ounces; omit the fomentations, and employ warm dry friction, &c.; gave ice internally, and continued infusion in moderate dozes. 3 o'clock, P. M., she has become more warm, and sweats some; pulse just perceptible; vomits occasionally; venesection again repeated to four ounces; continue the infusion. 30th, 6 o'clock, A. M., pulse gaining in fulness, but oppressed; venesection again, four ounces taken away; medicine continued. 12 o'clock, at night, perspires freely; bowels open; evacuations feculent; patient faintish—let her have some light nourishment; tongue more lively red; pulse still depressed; skin inclining to coldness, and dull purple; venesection, four ounces; blood more florid, and runs freely; continue the sudorifics.

31st, at 9 o'clock, A. M., her situation improved; skin less purple; bowels irregular, and somewhat griped; pulse more fair, but still obstructed; perspiration gentle, but more free; tongue more red on the edges, fur on it, whitish and firm; gave calomel sudorifics and spt. nit. dulc.; vene-

section repeated to four ounces. 9 o'clock, P. M., all her symptoms improved; continue the medicines.

August 1st. She has rested quietly; improved in her situation; passed urine for the first; continues in gentle perspiration. Give sudorific medicines and cathartics.

2d. Continues to improve. The left arm begins to swell from the bleeding orifice; after this a slow fever continued for several days. An abscess formed in the arm; the matter discharged, and the patient slowly recovered.

Mrs. W., Aug. 4th, after more than ordinary exercise on the 3d, during the night, was attacked with diarrhœa, nausea and vomiting; it was 10 o'clock, A. M., when I saw her; those symptoms continued; the discharges were of a rice water appearance; tongue red, covered with a shiny white scurf; pulse small, soft, scarcely perceptible; extremities very cold; skin blueish; severe gastric weight and pain; spasms of the legs; eyes sunken. Remedies—laudanum and ess. anise.; blood-letting to 8 ounces; hot applications to the feet, stomach, &c. After an hour, the infusion was given gradually, until vomiting was produced; 6 o'clock, P. M., she has vomited freely; spasms left; warmth returned to the surface; moderate perspiration; pulse more full and tense; tongue redder; pain at the stomach; skin still blueish; venesection, 12 ounces; omit the infusion; give cal. and rhubarb each, gr. 10, and senna, manna and salts. 5th, Cathartic medicines operated well; feculent discharges; pulse more tense; tongue red; distress continues at the stomach; skin blue; scurf on tongue more white, adherent and the spicula erect; venesection, 20 ounces; this bleeding was continued till the skin became pale; the pulse full, and was soft and free; an easy sweating ensued; this seemed to put an end to the case; after this gentle sudorifics and some attention to the state of the

bowels, effected the cure: by the fourth day she was dismissed cured, able to sit up.

August 5th. J——K—— was taken with severe diarrhœa about three o'clock, P. M.; stools became copious, watery, whitish and flocculent; by 10 o'clock they were attended with gastric pain; weight and a sensation of sinking at the stomach and the bowels; exhaustion; vomiting commenced; the discharges from the stomach were very similar to the alvine evacuations; spasms supervened across the stomach, extending to the extremities; overcame in a fit of vomiting; involuntary diarrhœa, and spasms; he sunk senseless; skin cold; face clammy, purple and contracted; eyes sunken and ghastly; pulse imperceptible; extremities cold; fingers withered; voice sepulchral; urine suspended. Treatment—external heat by fomentation; hot bricks, with friction; internally, laudanum and æther; arms immersed in warm water; a vein opened, and ten ounces of blood taken away, extremely black; the infusion given in moderate quantities; in one hour he began to vomit more the natural contents of the stomach; in three hours pulse perceptible, and raising in one arm; warmth returning to the skin; venesection, 20 ounces; the infusion continued after this bleeding; the diarrhœa ceased; the spasms disappeared, and an easy perspiration ensued. 5 o'clock, A. M., laboured respiration continues; pulse in one arm full and tense, in the other still imperceptible; tongue lively, red, and covered with a white light fur; has vomited a number of times; venesection, 20 ounces, and continued a moderate use of the infusion. 12 o'clock, A. M., has continued easy, and perspired freely; pulse, in one arm, softened and free; he is considered free from danger; omit the infusion, and let him drink freely and lay quiet. 8 o'clock, P. M., has

considerable fever; give antimonial sudorifics, and cathartics of Magn., Rhei., Epsom salts, and an anodyne at 10 o'clock. 7th. After taking a large quantity, the cathartics produced free discharges of feculent matter; fever lessened; pulse first perceptible in the left arm; passed urine this morning for the first time; repeat the antimonials. He set up this afternoon. 8th, is free of disease, and walked the room.

Poughkeepsie, Oct. 1st, 1832.

RESPECTED SIR,

Being a student in your office, at the time the Epidemic Cholera appeared in the County Poor House, one mile east of this place, in an extensive manner, with other young medical gentlemen, at the request of the Board of Health, I repaired to that place, on the second of August, and took charge of some of the inmates, affected with that disease; there was no settled method of treatment adopted at that time; but it appeared very experimental; at your request and advice, I pursued that of blood-letting, and stimulating emetics, and the result of my treatment, I am happy to communicate to you. I cannot but remark, that many, I believe, are now enjoying good health, who, had it not been for this method of treatment, would have been in the invisible world. Long may you live to enjoy the pleasing consciousness of having been instrumental, under Providence, in saving your fellow creatures from the hands of the rude destroyer, which is the prayer of your most obedient servant.

DAVID L. STARR.

H. SHERRILL, M. D.

Mrs. Roberts, aged 79 years, was attacked on the 2d day of August, with vomiting, diarrhœa, gastric pain, cold skin and purple extremities ; pulse nearly imperceptible ; countenance and eyes sunken, and cadaverous ; tongue pale, purple and cold ; spasms severe. Remedies—hot applications to the surface ; arms immersed in warm water ; venesection, four ounces ; gave the emetic infusion ; pulse rose a little after vomiting ; in three hours venesection again ; about the same quantity taken away ; administered the emetic infusion the second time ; the pulse became full and soft ; the emetic infusion was continued in small quantities, as a sudorific, and occasionally increased, so as to produce vomiting ; in four hours six ounces of blood taken ; the tongue became more red and warm ; the skin assumed an appearance more natural and moist ; a lively red upon the edges of the tongue, now showed itself, and the scurf became more white and ereet ; antimonial sudorifics were given in place of the emetic infusion ; the pulse became more tense, and the febrile symptoms appeared ; venesection was again repeated to six ounces ; the fever continued ; the remedies were persisted in ; venesection again repeated, making five bleedings in all, in which she lost from thirty to forty ounces of blood ; on the fifth she was free of disease, except debility ; but from the advanced age and broken constitution, she gained strength slowly—she is now perfectly well.

Daniel Frazier, aged 5 years, attacked on the third day of August, with vomiting and diarrhœa ; gastric pain and severe spasms followed ; on the fourth he was considered a hopeless case, and given up by his attending physician ; at this time I came into possession of the ward in which he lay ; his appearance at this time was extremely unpromising ; no pulse was perceptible at the wrist or elbow ; the

eye was sunken and deathly ; his skin purple and cold ; and he really appeared as if in the grasp of death ; some warm water and clothes were immediately procured ; the clothes were wet in the water, and the patient wrapped in them ; the infusion was now administered, and, as soon as possible, blood was obtained ; reaction came on ; vomiting succeeded ; hot bricks were still kept in the bed ; perspiration followed ; venesection repeated ; the pulse became full, fair and soft. On the 6th he was considered out of danger. The following morning I left the house, and I understood the patient had a relapse, lingered and died.

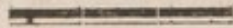
J. B., aged 8 years, was attacked August 5th, with vomiting and diarrhoea ; the discharges were of a rice water consistence and colour, and in other symptoms similar to the preceding cases. He was treated in the same manner as the others, and recovered so as to be about the room on the 7th. P. S. All of these patients were allowed as much cold water as they desired.

I do not hesitate to say, that one other patient in the house recovered by means of blood-letting ; but as the attendance had been irregular, and the patient under the care of others, some part of the time, no correct minutes of it could be taken.

During my attendance, a similar mode of treatment was practised upon several other patients, but in all, it was irregular ; a part of them had been some time under other treatment ; and others by the necessary changes in medical attendance passed from my care ; and as private patients and other circumstances induced me to leave the house on the 7th, I do not know that any of them recovered.

STARR.

About the time the epidemic began to subside in this village, it made its appearance at the settlement called Barnagat, situated on a lime rock location six miles south. The residents there, in an extensive manner, carry on the manufacture of lime, The six first cases that occurred here, proved fatal. On the 4th September, by the united desire of the inhabitants of that place, I was invited there, to unite with the health officer, Dr. P. Schenck, to aid in adopting a plan of managing the disease; previous to this, the cases had been attended by several other prescribers. By the liberality of the health officer, as he resided some distance off, arrangements were made for Mr. Starr to be stationed there, and by our united counsel direct the general treatment. The plan of treatment detailed in this Essay, was now adopted and steadily pursued in all except one case, in which the friends refused to use the necessary remedies, and employed other attendance. This case terminated fatally. After this course was pursued, out of about twenty-five cases, several of them sunk into a collapsed state, there was none that proved fatal.



(Note A.) When the epidemic of 1812-13, made its appearance, the symptoms of apparent prostration and debility, with the depressed state of the pulse attending it, connected with the delusive names of typhus and spotted fever, probably induced most practitioners to consider it so much a disease of direct debility, as to avoid evacuating remedies, and in many cases to have recourse to cordials and stimulants, which frequently hastened the fatal termination of the case. Under all modes of treatment, at the first, it proved very destructive; when the practice of blood-letting, and other evacuations were introduced, nearly all classes of prescribers were opposed to it, and "nurses, old women, and uninformed individuals resisted its use," (27.) The reason probably, that this plan of treatment had proved unsuccessful in the preceding cases, where it had been used, was that too much blood was taken at first, or that the operation was not repeated often enough. In either case, it would be likely to fail; for after the arterial action comes out, it ought to be carried far enough to subdue the inflammatory

character. Dr. Mann informs us, that in the vicinity of the army in different places, among the inhabitants, sudorifics, cordials, stimulants, opium, calomel, &c. were remedies generally resorted to, and that the deaths, under the stimulating plan, was one half, or thereabouts; under other modes of treatment, without evacuations, the deaths were rather less, but very numerous; but that in the army, where the evacuating and depleting plan was followed, the fatal cases were from one in twenty to one in forty. In the army the patient could always be seen early after the attack, and be regularly disciplined in the treatment; in private practice there is always some intemperate and ungovernable cases, that neglect or resist the remedies; deduct those from the number treated, and the result would be about the same in this country, as in the army; and in regard to the prevailing epidemic, if a comparison was drawn between the modes of treatment, the result would be very similar.

(B.) The practice of wetting the face and temples with liquid substance in this state of the cases, as well as in most other instances, with an intention of relieving fainting, or aiding in a difficulty of respiration, is erroneous and injurious; the application of liquids to the face, by the evaporation produced, carries off heat, and increases the coldness of the skin; all the benefit derived from such remedies, is the vital air the patient obtains by breathing, or the stimulus added to the system in the same way. A cloth wet in warm vinegar held near the nose, is the best remedy that can be obtained in such emergencies, or any other material used in the same way; the best application to the face, is to rub it with a warm dry flannel; with those remedies applied in this way, I have done much toward removing the blueness from the face, and in aiding the reaction of the system.

To explain some remarks, it is necessary to state that when the disease broke out in the Poor House, I attended there about four days in counsel, after that I only called occasionally as a spectator.

ERRATA.

Page 9, line 20,	for congealed	read	coagulated.
15,	13,	for apparent	read aperient.
16,	12,	for form	read from
21,	17,	for than other	read than any other.
32,	15,	for shiny	read slimy.
32,	3	from bottom,	for full

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