

ARTICLE XVIII.

DISSERTATION ON CERTAIN EPIDEMIC
DISEASES,

WHICH PREVAILED IN THE COUNTY OF WORCESTER,
MASSACHUSETTS.

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THE rapid improvements in the arts and sciences which are taking place in all parts of the civilized world, are effected by an union of emulation and effort. So short is our existence, and so limited are our powers, that detached from society, we can make but small progress in science, and at the close of life our attainments are buried with us. In society, by the interchange of knowledge, we add materials to the general stock. This treasure increases with its use; and when the contributors are no more, this accumulating fund passes as a legacy to posterity, and, like the mantle of Elijah, imparts a portion of our spirit.

EXPERIMENTS may be adduced to solve the problems in mechanic arts, and improvements in these are seen with the certainty of mathematical demonstration. Not so with those concerns which partake

more of science than of art; here the data are more obscure, and the deductions more uncertain. Under this description the knowledge of medicine is to be ranked. So intricate is this science, so various are the subjects for its application, and so short is our season for improvement, that little would be learned, and much less would be communicated to posterity, were it not for the records of a medical institution.

A FELLOWSHIP in the Massachusetts Medical Society makes us responsible for *all* the benefits which the institution is calculated to produce. As men, it is our happiness to be benevolent—as physicians, it is our duty to *do good, and to communicate*. Under these impressions, gentlemen, I beg leave to perform this anniversary duty, by communicating to you the history of a very malignant epidemic, which visited the town of Worcester, A. D. 1796; and by noticing a more recent and more generally alarming disease, which has appeared in Connecticut, and in some parts of this Commonwealth.

THE spring of 1796, was as healthy as usual in Worcester and its vicinity. The scarlatina anginosa, which had been wandering about us for two years preceding, visited some parts of the town in an irregular manner, but without any uncommon malignancy. The measles also had a partial spread; but the symptoms in general were mild and favourable. The latter part of June was unusually warm and lowering. Indeed, the whole month, and some part of May was accompanied with frequent moderate rains. No unusual complaints existed. The first week

in July was warmer than usual for the season, but the air was pure and dry ; the residue of the month, wet and sultry, without great rains—vegetation extremely rapid. On the fifteenth of the month, the dysentery made its appearance. The first person affected was an apprentice to a tanner, about seventeen years of age, of a slender, lax habit. The disorder terminated favourably in about ten days. The next was a labouring man, aged 24, whom the measles, a few months before, had left in a feeble, unhealthy state. In this patient, the disorder assumed its most malignant form. The symptomatic fever was of the typhus kind. On the third day, a delirium supervened, and he died on the fifth, with apparent mortification of the bowels.

ABOUT the first of August, the disorder began to rage in the centre, and most populous part of the town, where it was now wholly confined. In the course of three days nearly fifty persons were affected. The disease was ushered in, under almost every possible form. In healthy and robust habits, the symptomatic fever was of the synochus type. In those of feeble and lax constitutions, the typhus was its attendant. In most patients it was remittent. In some, particularly in infants, the vital energy seemed destroyed in the first onset, inducing that nervous debility, peculiar to the more malignant kind of the scarlatina. The disorder was generally fatal to children, particularly about the period of the first dentition, when the system is most irritable. Few aged people, unless much exposed to the conta-

gion, were affected, except by slight pains in the abdomen. Indeed, dysenteric pains of this sort were more or less felt by all the inhabitants. Many were troubled with diarrhœas, and cases of cholera were not uncommon.

UNTIL about the fifteenth of August, the disease was principally confined to the compact part of the town. A few cases, however, appeared in other situations. But from this period, it spread in every direction. No situation was now exempt. Those who inhabited the most hilly and healthy parts of the town seemed as liable to its ravages, as those who dwelt on low ground, and in the vicinity of swamps and stagnant water. At the first attack, the symptoms in many, particularly in adults, seemed strongly to indicate bleeding; but it was seldom used, and I believe never to advantage. The evidences of debility were so early induced, that the most active stimulants became indispensably necessary, even in almost the first stages of the disorder. This state was invariably accompanied with an aversion to all kinds of food, and even drink; and the effect of taking either, whenever necessarily accompanied by persuasion, was a dysenteric discharge, or a violent tenesmus; and what was still more extraordinary, all who were sick in the same room, from the force of sympathy, partook of the same sensation, and were operated upon in the same violent manner!

THE arterial system was preternaturally excited, but the pulsation was feeble and tremulous; in children, it was often too quick to be counted, and

resembled the vibration of a cord. The tongue was generally dry and dark, and often cold.

THE disorder, when favourable, finished its course from within seven to fourteen days, according to its violence, and the habit of the patient. A slight remission of the symptoms was generally succeeded by a gentle moisture of the skin, which, from the beginning of the disease, was obstinately dry, and exhibited a dark, cadaverous hue. The stools became less frequent, and more copious, with a gelatinous appearance, arising probably from the abrasion of the colon, and consequent serous effusion. In severe cases, but which terminated favourably, the patient generally remained about four days apparently in a stationary state. Some more favourable symptoms begin then to appear. Something like a natural discharge from the bowels occasionally takes place. The pain and tenesmus, which have been intolerable, in some measure subside, and the appetite gradually returns. The convalescent state, however, is long and tedious. The pains so peculiar to this disorder are for a long time troublesome, and the irritable state of the alimentary canal induces obstinate diarrhœas, and sometimes lientery.

IN the last stages of the disorder, in some patients, a most troublesome aphtha took place. The tongue, mouth, and throat, and even the whole alimentary canal, became incrustated. When the salivary glands were uncovered by the sloughing of the mouth and fauces, a ptyalism ensued. Anasarca was not uncommon, but disappeared as the fibres recovered their tone.

THE above comprises the history of those cases which were severe, but not mortal. We shall now notice the disease under a more malignant form. The first subjects of all epidemics are those who have a particular predisposition to the disease. By this immutable law, children were the first victims of the malignant dysentery. Those who derived their chief nourishment from the breast, generally escaped the contagion; but from the time of weaning until four years old, they were the most susceptible. Scarcely one within this period recovered until the first of September.

THIS disease appeared in children with more various symptoms than in adults. A languor of the countenance was noticed in some, previous to the formation of the disease; in others, it was ushered in by a morbid affection of the stomach and bowels. In these cases, death approached with hasty strides. No application seemed for a moment to allay the symptoms, or to avert the fatal blow. Vomiting and purging were almost incessant; the extremities cold; the pulse fluttering, and scarcely perceptible; fibres inelastic; a cadaverous countenance; sweat standing in drops upon the forehead, the upper lip, and around the eyes. The pupil of the eye was uncommonly dilated; and in sleep the eye was but half closed, and rolled up into the socket. When awake, the winking and motion of the eye was as deliberate as is common to persons deeply oppressed with sleep. There was an evident delirium from twelve to twenty-four hours before the fatal period.

FOR the cure of this inveterate disorder, perhaps the *Materia Medica* was never more ransacked on any occasion. The dysentery, diarrhœa, cholera, and other like affections of the bowels, with the generality of people, are synonymous, and so confounded, that a prescription which has been favourable to a gentle relax, has been extolled as a specific for the dysentery. In such a season of calamity, no wonder that every humane feeling was called forth, and every hand extended to administer some friendly aid. Every family had its nostrum, and every visitant something new to recommend; and this too, under the common testimony in favor of a favourite prescription, "that it can do no hurt, if it should fail to do good." The truth of this maxim was perhaps never more verified! Under these embarrassments, it sometimes required great resolution in the physician to prevent an improper administration of medicine. The plan of cure which seemed to be indicated, was, in the first instance, to clear the first passages. This was generally effected by ipecacuanha and castor oil. Opium, in some form or other, seemed indispensable. Mucilaginous drinks were freely used, together with soft anodyne injections. The soreness and swelling of the abdomen was attempted to be relieved, and sometimes with effect, by the use of volatile liniments and warm baths. The tenesmus, so peculiar to this disorder, was mitigated by enemata, but the excoriation was so great, and the prolapsus of the rectum so troublesome, that with great pain and difficulty they were administer-

ed. In some cases astringents were injected early in the disease ; but generally some mitigation of the symptoms, particularly of the fever, rendered their use more advantageous.

AT the time when the crisis appeared to be forming, nature indicated the most stimulating food, such as fried bacon, salt pork, salt fish, onions, and the like. On this food, too gross for a state of health, some patients fed freely, and with sensible advantage. Generous wine, brandy and water, and milk punch, were usually taken in all stages of the disorder.

ABOUT the first of September, this disease assumed a more favourable aspect. The number of patients was diminished, and their symptoms were more mild and favourable ; but where the disorder had formed itself during the unfriendly season a change of the atmosphere was of little service.

TEN days elapsed after the first death, which happened on the 19th of July, without any mortality. Between the second and third, eight days intervened. In the course of one week after, the deaths averaged one per day : In the second week six died ; ten in the third ; fourteen in the fourth ; and seven in the fifth week, which ended on the twelfth of September. There were ten other deaths between this time and the twelfth of November, when the disease disappeared. Of the above, two were between sixty and seventy years of age ; two between twenty and thirty ; four between twelve and seventeen ; forty-two between one and five, and two of six months ; making, in the whole, fifty-nine persons.

SELDOM has the record of medicine in our country given a more melancholy detail of the ravages of death ! One in thirty-nine of the inhabitants of Worcester fell the victims of this devouring pestilence !

I SHALL now, as proposed, proceed to notice a disease, which has recently spread consternation among us, and which has received the appellation of *Petechial Fever*.

AFTER the ample report of your committee upon this subject, it will not be expected that I do more than offer you some gleanings from the field, and give an appendix to their labours, rather than a complete work of my own.

IN this learned investigation, great patience, industry and candor are manifest ; but from the hasty, and perhaps partial manner in which information was furnished the committee, and the prejudices and prepossessions which insensibly operate upon the fairest minds, and no doubt influenced some of their correspondents, it would be unreasonable to expect that a work of this nature should be free from error. It is certainly more extraordinary that so few should be found. Two only have I seen mentioned ; these I shall notice in the sequel. In such a work, many minor facts and circumstances, which give a character to a disease, and a knowledge of which may be useful to the physician, must necessarily be omitted. Some of these I shall attempt to supply.

SUBSEQUENT to the report of your committee, I had some opportunity to notice a further variety of the *Petechial Fever*. About the last of June, I was

requested to visit a young woman in a neighbouring town, who was in an alarming stage of this disorder. I found that in addition to the marked symptoms with which I had been acquainted, there was a leading one which I had never seen. This was an obstinate diarrhœa. Three or four persons in the same house and neighbourhood had been taken in the same way, and had died. She was under the experiment of the stimulating plan. I advised to a gentle cathartic, to keep the body and the extremities chafed and wrapped in dry and hot flannel, and to follow the cathartic with warm nutritious soup, wine whey, and other gentle cordials. The result was favourable; the diarrhœa was checked, a diaphoresis ensued, and the patient was restored. A few other cases occurred in that neighbourhood, which terminated favourably by this treatment. These cases proved that the disorder had varied with the season, and that the highly stimulating plan was not the best adapted to its cure under this change.

ABOUT the middle of July, Messrs. R. and S. two healthy and active young gentlemen in my neighbourhood, were attacked with this fever. In Mr. R. the disorder commenced with pain in the head, a quick and hard pulse, violent throbbing of the temporal arteries, rigors and pyrexia, with great distress at the stomach, attended with oppressed respiration, and at times a sense of suffocation. Learning from the family that he had complained of vertigo, and oppression at his stomach, the day preceding, I gave him an emetic, which discharged the

healthy contents of his stomach, followed with bile. This lessened the pain of the head, and favoured a general perspiration; but the distress at his stomach was not relieved, and the dyspnœa remained troublesome. The bowels were excited by powders of calomel. Anodynes, with gently stimulating cordials, were occasionally administered. The disease lasted ten days before he became convalescent, and ended in a diarrhœa. Was not this a case where *bleeding* would have been beneficial?

MR. S. was taken with numbness in one hand, succeeded by pain and dizziness in his head, with alternate pains in his limbs and various parts of the body, with great distress at the stomach. I gave him an emetic, which operated freely; but the discharges, as in the above case, indicated no deranged state of the stomach, and gave him no relief. I repeated the emetic the next day, at his urgent request, as he was confident he had a *load* there, which ought to be discharged; but without the benefit which he expected. He found relief from the effect of sudorifics, with the occasional use of anodynes, followed with a mild cathartic. The more distressing symptoms abated in a few days, but he continued feeble for a fortnight, when an eruption took place, general and distinct, which ended in a desquamation of the cuticle. It is important to remark, that in both these cases the disorder was brought on by an exposure to cold, after fatigue from exercise. They also serve to corroborate the idea, that there was an existing predisposition to the disease, and that this exposure was the exciting cause.

As the nature and the origin of this disorder are yet the subjects of inquiry, it may facilitate a just result to add more particular remarks. During the period of my acquaintance with this malady, I noticed almost every shade, from a slight and almost imperceptible tinge, to its fixed and glaring colour. In the places where it was the most prevalent, it was not uncommon for people who did not think themselves sick to feel pain, and other sensations to which they had not been accustomed, and which were the more common attendants of the petechial fever. This I myself experienced for forty-eight hours, while most laboriously engaged in my professional duties at Rutland. Some time in the night, while enjoying a short respite from my fatigue, I awoke with a mixed sensation of pain and numbness in my right hand and arm. I was at the time reposing on my left side. After sitting up in bed for a few moments, and giving it a violent friction and exercise, it was so far recovered as to enable me to renew my rest. But, for the period mentioned, I found it troublesome whenever I was so little occupied by pressing calls, as to attend to myself. The numbness was confined to my hand and arm, but the pain was erratic. Wherever it was felt, it was pungent and distressing, but most excruciating when, like the *nail of Sisera*, it pierced my *temple*. A few days prior to this, I slightly broke the skin of a finger, upon the hand affected. The pain, in its eccentric course, made frequent and distressing attacks on this part. The vessels appeared to be excited, and an ichorous dis-

charge was produced. There was no suppuration; and when the pain subsided, the wound assumed a mild appearance, and readily healed. This affection of my hand and arm was the more noticable, as I was obliged to substitute my left hand in managing my horse. That this arose from a predisposition to the disease, I infer from my never having noticed at any other time a similar affection, and from hearing a similar complaint of a very pungent pain in a slight wound from a patient labouring under this disease, which he compared to the repeated stinging of a bee. I was also informed by some others, that they were apprehensive of an incipient gout, from experiencing severe and darting pains, to which they had not been accustomed, and which they supposed were peculiar to that complaint. I have been more minute on this head, as I have seen no communication of the fact, though doubtless it has been noticed by others.

RELAPSES have been more frequent in this disease than have been noticed in any other, and whenever they occur, a *succession* may be expected; and it has been observed that those patients are the most liable, whose systems have been over excited by stimulants, or exhausted by sweating. One of the former class fell under my care, who had an *habitual* attachment to the stimulating plan of cure. Her relapses had been several times repeated before I saw her. In the course of a few hours, she had taken nearly a pint of her favourite remedy, without removing the great distress of her stomach, a sense of

suffocation, which was extreme at intervals. Pursuing the same plan, I gave her large and repeated doses of laudanum, but without a durable effect. As she began to complain of nausea, I gave her a powder of ipecacuanha, which evacuated her stomach of its filthy load. I then gave her a strong decoction of snakeroot and valerian, with tinct. castor, after which a gentle perspiration was obtained. She rested quietly, and by the aid of suitable nourishment, she was restored to the same state as before her relapse. I now enjoined it upon her, to abstain at all events from her stimulating course, to drink cold water instead of brandy, and to rely upon gentle exercise and nutritious diet for her cure. She had resolution to follow the advice, with sensible and lasting advantage.

IN the course of the last summer, I was frequently consulted by persons, who in the preceding winter and spring had had the petechial fever, and who in consequence had passed into a hypochondriacal state of body and mind. I found them under great dejection, and extremely apprehensive about their recovery. After the use of evacuating medicines, I recommended gentle tonics, a generous diet, and a ride to the "*salt water.*" I have known no instance, in which a compliance has not been effectual.

IT has been generally remarked, that most of those who have had this disease were slow in recovering their equanimity of temper, and cheerfulness of mind. Their feelings were more irritable, and the

observation has been, that "little things affected them."

AT the close of the last winter, and through the course of the spring, the petechial fever has appeared in some parts of New Hampshire, Vermont, and in the neighbouring borders of Canada. From the accounts which we have received, it spread not only dismay, but desolation in its onset, as in other places where it has visited; but that the season, or the physicians, have now stripped it of its terrors, and its power to annoy. The disease being new, the physicians, probably, relied more on newspaper directions, than their own judgment, and in many cases, no doubt, were unable so to discriminate as to adopt the best course; but such as they *did* adopt, they have strenuously defended. Unfortunately, the same diversity of sentiment respecting its nature and cure, which has appeared in some other places, has been prevalent there. Each system had the sanction of experience, and its superior efficacy was attested by a host of patients, rescued, by this mode only, from the grave! That physicians should adopt different methods of cure, for a disease which appears under different shapes, is natural; but that they should pretend to bend the discordant symptoms which appear under the various modifications of the disease, in various patients, to one rule, is extraordinary. It cannot be extensively true in fact. Physicians may theorize in support of a sentiment prematurely advanced; they may defend it pertinaciously,

but fortunately, they abandon it in practice. In speculation only they are wrong. From the publications of medical gentlemen, however discordant as to the method of cure, we learn the identity of the disease, and that it has not been formidable, under judicious management.

I HAVE mentioned that two errors have been noticed in the report of your committee. I will now state them. The first is, that "a considerable proportion of the physicians in those places where a very liberal use of cordials have been tried, are now convinced that the practice was highly injurious;" the other, that "bloodletting may sometimes be practised to advantage."

WITH respect to the first sentiment, it has been advanced upon good authority, and with the obvious qualification, is unquestionably true. It is a well known fact not only in Connecticut but in this state, when a "bold and liberal use of stimulants" was indiscriminately and perseveringly administered, that in the opinion of the most judicious physicians," the *remedy*, in many cases, proved *worse than the disease*, and in others, "was highly injurious." It would be illiberal if not unjust to ascribe the introduction of this wide spreading and in many cases pernicious remedy to the want of professional skill in those who first sanctioned it. It is to be presumed that in the first appearance of the disease, evacuating remedies were administered in cases which were fatal in their first attack. From the failure of success, and in the

consternation of the moment, it was perhaps hastily inferred that the practice in all cases would be pernicious, and that stimulants must be resorted to as the only safe course. Their application happened to be successful. The sovereign remedy was promulged, and in many cases indiscriminately followed. Brandy and opium were prescribed in many instances to almost an indefinite amount, and their repetition confided to nurses, confident in their efficacy, but incompetent to judge of their effects. Surely this practice by *all* physicians must be considered as "highly injurious." On the other hand it is equally true, that those who adopted the evacuating course, and regarded *stimulants* in all cases as inadmissible, were as erroneous as were the gentlemen whom they opposed. Some physicians of both parties were, doubtless, too tenacious of a hasty opinion, and too confident that success would be the final result. But the lessons of experience were at length heeded. Relaxing from their rigid rules they began to prescribe for a *disease* instead of a *name*; and in the spirit of the Report, they were convinced that a very liberal use of cordials, rum, brandy, and opium, "was highly injurious;" or in other words, that the physicians in Connecticut and elsewhere, from their experience and familiarity with the disease, and in the exercise of their reason and judgment, prescribed from the symptoms as they occasionally appeared.

WHILE justifying the report of the committee, it is more pertinent to pass from *speculation* to *fact*.

IN some parts of the county of Worcester, "the popular remedy," as it has been called, had a wide and destructive spread. Its fame having been known, and it having been recommended in some cases by some of our most skilful physicians, and very properly no doubt, it obtained a currency which they did not intend, and which became almost impossible to control. From being a remedy for the sick, it was very natural that it should become an antidote for the well. So great was the alarm of the inhabitants, and so strong their reliance upon this sovereign specific, that the shops were soon exhausted, and the supplies in private families consumed, and waggons were despatched to the neighbouring towns for liberal supplies. The *cure* became contagious, whatever may be said of the *disease*; and the remedy was resorted to in many places where the disorder had not appeared. Some physicians so far partook of this infatuation, as to enforce the precept by their example, and by bringing on a state of debility, favourable to the disorder, they added to the number of the sick. Some died in a state of intoxication, while their watchers sat by them in the same condition. The disorder seized the enfeebled prey—the next night they were watched with in their turn, and died! The judicious physicians of the county of Worcester who noticed these effects, were surely of opinion that "the practice was highly injurious."

THE other error mentioned is, *that blood-letting may be useful as a remedy*. Upon a perusal of the Report it will be found, that this is recommended under

certain circumstances only, and with great caution. If, as it has been asserted, from the constitutional state of the air, or from other circumstances, that our diseases generally will not admit of bleeding I will not claim for this malady an exemption. This fact, if it exist, is not notorious in our vicinity; and I think that the gentlemen in Connecticut, who have noticed it, must have met with some cases of Petechial Fever, which would have been benefited by blood-letting, performed with the caution recommended by the committee. It seems evident, from the account of every dissection which we have seen, that the vessels of the head are unduly charged.

To this cause we may ascribe most of the symptoms which appear; and that this is the fact, I further infer from the almost certain relief obtained by producing that state of the vessels of the surface of the body and extremities, favourable to a diaphoresis; not that a diaphoresis, or sweating, has any agency in the cure, but only as indicative of the action and enlargement of the vessels on the surface, which admit of an equalized circulation. As conducive to this, I apprehend that emetics, in nauseating doses, are principally useful. There has been no part of the curative process so much relied on, in general practice, as sweating; but abstractedly, I conceive this to be of no value, and long continued, must be pernicious. Where this is pursued, the liberal use of cordials, I grant, is indispensable.

IN fine—However discordant and various may be the reasoning of physicians, the laws of nature are

uniform. Cause and effect have a fixed relation in the animal frame, and even the Petechial Fever, this "non-descript," this "Protean disease," which has stalked before our imagination as a monster, will be found, by due attention, to be a subject of the same government as other diseases. Whatever may have been the diversity in theory, respecting the mode of treatment, the practice of most physicians has been substantially the same. This I infer generally, from the necessity of the case, but particularly from an exemplification in a joint practice with my respected friend, Dr. Haskell. From noticing each other's publications, we met in consultation, with a mutual presentiment that we should not harmonize; but we found, upon experiment, that our method of treatment, was similar; so much so, that we visited the same patients together, and alternately, as would best accommodate our business. The satisfaction at this discovery was mutually felt, and mutually expressed.

ON the season of our anniversary, it may not be unprofitable to inquire how far our institution has answered the expectations of its founders, and requited the patronage of an enlightened government, which has established it. The liberality of the statute, by which we are known as a society, and our liberality in expounding it, has given this establishment so broad a range, as to include in its embrace the greater part of those who would confer or receive honour by an admission. Our laws and regulations are intended to facilitate every blessing which an institution of this character is calculated to afford. An

union of the respectable physicians of the commonwealth, has been sought and nearly effected; and the pleasures and benefits of a friendly and literary association have been felt and diffused. The general harmony which has prevailed, while honourable to the fellows, has caused a concentration of our efforts to increase the knowledge of medicine, and secured the respect and confidence of the community.

It is perhaps a just remark, that the great body of physicians of every country form a mass of less accordant materials than any other class of professional men. With great care and exertion in its transactions, it was confidently hoped, that our institution would form an exception to this truth. But our hopes have proved fallacious. The repellant particles held in contact by casual and artificial pressure, have burst from their unnatural alliance, and formed a new cohesion with more congenial elements. From this recently concreted body has emanated the Petition now pending for a College of Physicians. This has resulted, most unquestionably, from a spirit hostile to the Massachusetts Medical Society, as well as the medical institution of Harvard College; and if granted upon the conditions prayed for, must be subversive of the interests of medicine in the commonwealth. The same collisions of interest and ambition, whose baneful effects have been witnessed wherever similar innovations have succeeded, must here be felt. And the most favourable result that we can hope is, that after experiencing these evils, we may again unite to repair the injuries which our dis-

sentions have occasioned, and to regret the want of wisdom and patriotism which caused them.

WITH such mischiefs in prospect, our duty, gentlemen, is obvious. But it is believed, that a wise legislature, the guardians of the rights and interests of the community, will be cautious of sacrificing an institution, the child of their adoption, whose salutary influence is acknowledged through the commonwealth, and which they are virtually pledged to protect.