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TREATISE

ON THE

SCARLATINA ANGINOSA;

WITH AN

APPENDIX,

CONTAINING

OBSERVATIONS ON THE PRACTICE WITH

SALT and VINEGAR.

By THADDEUS CLARK,

MEMBER OF THE CONNECTICUT MEDICAL SOCIETY.

Doctrina vana est, ratio ni accesserit.

NORWICH:

PRINTED BY THOMAS HUBBARD.

M, DCC, XCV.

TO

Dr. ENEAS MUNSON,

PRESIDENT of the *Connecticut Medical Society*,

The following pages are respectfully inscribed by his unknown friend,

THE AUTHOR.

Lebanon, August 10th, 1795.

P R E F A C E.

SOME part of the following Treatise was written last April, principally, for the amusement and improvement of the author. He has lately made considerable addition to it, and subjoined an appendix with which it is offered for publication.

It is fashionable for Authors to tell their motives for publishing, among which, a regard for the public good never fails of finding a place, though the principle acted upon, may have been wholly an object of self interest, or to gratify a spirit of vanity. Whether, or not, the succeeding pages will be of any advantage to the world, a point, that may seem almost beyond the limits of the ambition of a young man in the situation of the author, time must determine. A firm persuasion rests upon his mind, that they can do no hurt.

The appendix never would have been seen, was not the author positive, that the article there considered, has met with no more success in its career to fame, than what would have attended any insignificant article palmed upon the community with the same address and under similar circumstances.

To those who may be disposed to rank the step I have taken among the impruden-

ces of youth, I will acknowledge, that the imperfections of the performance are many, and had the author no view but such as relate to literary credit, he would have withheld it perhaps, at least, a year or two from the public eye, that it may have felt the influence which the ripening hand of time possesses over every literary production.

I appeal to the candour of my brethren and fathers of the profession, and a kind, and indulgent public. Though, from all, it is impossible for me to expect a favorable reception : with the candid and ingenuous, I hope, and believe, it will be unnecessary for me to disclaim a bad motive.

To objections, there exists this one general reply : it is a land of liberty.

TREATISE ON THE
SCARLATINA ANGINOSA.

THIS disorder, vulgarly known by the name of Canker Rash, is now epidemic in various parts of New-England, and is generated, both by a peculiar state, or constitution of air, and contagion.

That we may have a clear comprehension of the disease, the Prophylactic scheme and the method of cure, it will be necessary to make some observations relative to

- I. The nature of general predisposition,
- II. The properties and operations of contagion and contagious Diseases in general, and
- III. The specific contagion, and nature, of the SCARLATINA ANGINOSA. I shall then lay down the Prophylaxis, and conclude with the history of the Disorder and the method of cure.

I. The nature of general predisposition.

As I have said above, the Scarlatina, like many other diseases, is produced, both by a peculiar constitution of air, and contagion.

That it is generated by contagion, will not be controverted. That it is produced by a peculiar condition of air, is deducible from

from instances that obtain where the subjects have not been exposed to infection. Notwithstanding some people have been disposed to deny the fact, observation leaves no room for dispute in my mind: and who, upon the supposition that the disease is wholly communicated by contagion, can give any probable reason why it is not constantly present?

Here the great question arises, what is that peculiar state of air? It is a hard question to answer. From inexplicable causes, there are changes, and conditions of air distinct from those that relate to the seasons of the year, and perhaps independent of any material alteration of its sensible qualities. || According to particular constitutions of air, we see particular diseases prevail, but more at some places than at others, and in some seasons than in others. Of those conditions of air that have been productive of disease, some may produce the same by operating primarily on the living solids, affecting such a change in the constitution as to lay the foundation of a disorder by which, in certain instances, a specific contagion may be generated, others, it is probable, by supplying the body with the particles of a peculiar matter fluctuating on the surface of the earth.

|| See Lind on diseases of hot climates, p. 227, 228
Sydenham's works Chapter 2. on epidemic diseases.

earth in certain places. The latter idea, may appear old-fashioned to some in our days, but I think it will bear the examination of all who are not too wise to attend to the observations of Sydenham.

Those general causes that operate on some persons to such a degree, as, to produce a specific disorder, will, in subjects in a less degree affected, produce a state of predisposition: thus, in the Scarlatina, a peculiar state of air not subject to investigation, is a general predisponent cause, and strictly speaking the only one. In some few instances this predisposition, as hinted above, will proceed to actual disease: and in proportion to it, will be the liability in the subject to receive the disorder by contagion. This predisposition will be different in different subjects, agreeably to varieties of constitution, and the action of causes, that may favor or oppose the influence of the predisponent cause.—

That such a state of air is not the mere flight of fancy, seems evident from facts that have met the observations of many practitioners, of which, a principal one is the cotemporary prevalence of kindred diseases. While the Scarlatina Anginosa is epidemic, other diseases frequently partake of its character. The instances of this kind mentioned by Doctor Rush in his first volume of Observations and Enquiries, page

154, and which he refered to the operation of the *contagion* of the Scarlatina Anginosa, might with more propriety perhaps, be refered to the action of a peculiar state of air. During the prevalence of the disease, many persons are often attended with symptoms similar to what take place in the Canker Rash, such as inflammation and tumefaction of the tonsils, white floughs in the fauces, and eruptive appearances on the skin, with or without any affection of the throat, as well in persons who have, as those who have not had the prevailing disease. The above symptoms, I have observed to be no uncommon attendant upon what we call *a cold*. Those cases of the Scarlatina, in the production of which, I had no reason to think that contagion had any hand, likewise followed exposure to the causes of this common complaint, or some irregularities.

Every disorder in our world has had a beginning, and, relative to its origin, is, doubtless the result of the combined action of a greater or less number of natural causes.

The small-pox, that dreadful scourge of men, was introduced about the year five hundred. It was probably brought into existence by a very extraordinary concurrence of natural causes; such an assemblage of morbid agents, as has seldom, if ever since obtained; hence the life of the disease, depends.

pends perhaps, upon the perpetuity of contagion in the world. Among the above-mentioned morbid agents, may, without doubt, be ranked a peculiar state of air. This idea is supported by rational inference from indisputable fact. That the small-pox, measles, and other distempers, were under the government of the atmosphere, was well known to Doct. Sydenham and many others since his day.

Particular conditions of air, have a sensible influence on these diseases, rendering them more or less epidemic, regulating the degrees of their violence, and exalting or mitigating the force of contagion. What the other causes are, which in connection with a proper constitution of air, would be sufficient, again to bring these disorders into life, will forever evade human enquiry.

Considering the connection there is between human maladies, and the alterations of seasons, climates, changes in society, and the customs, manners, and employments of life, how great must be the nursery of diseases? Many complaints of which we are ignorant, were known to the ancients, and we have but little reason to conclude, that the catalogue of possible diseases is yet completed.

II. Under the second head, I am to say something concerning "the properties, and operation

operation of contagion, and contagious diseases in general."

Contagion is the product and seed of certain maladies, and is the peculiar matter, by which its appropriate disorder is communicated from one person to another.

Our knowledge of the properties of infection, must be grounded wholly upon observation of the operations of infectious diseases, among which a great variety obtains. Of these, some, as many of the exanthematics, have this in common with themselves: when thoroughly impressed upon the system, they rarely, some say never, are communicated more than once to the same person. This is owing to some strong impressions made on the living solids by the action of the morbid matter, by which a radical change in the constitution is effected: to explain which satisfactorily, would require some time and good intellects. Other diseases observe no limits in the number of their attacks.

It is to the difference in the nature of the generative matter, that we are to attribute the diversity of infectious diseases. Every disorder begets its own species, however various the constitutions on which it is grafted.

Contagious diseases differ, in possessing greater, or less actions on the solids and fluids; and diseases of the same name; in the degree of this action and the quantity and concentration

concentration of the matter generated in the habit, from natural, accidental, or habitual varieties of constitution.

So small is the quantity of infectious matter imbibed into the system, that little, or no danger might be apprehended from its action on the solids independent of a previous action on the fluids.

When the seeds of a disease are sown in the body, a process, similar to what I shall state takes place.

The infectious miasmata absorbed, first operates on the fluids, changing them more or less to a condition like its own, and when this change has proceeded so far as to throw the system into disturbance, the disease commences. Thus we see, a course of time is taken up, by, what, for the sake of perspicuity, I will call a state of fermentation, which, in all disorders, is longer or shorter (though in the infectious exanthemata it is generally pretty uniform) according to the state of constitution, the nature of the infection, and, as causes may intervene to favor, or retard the same. This change of the humors is slow at its commencement, but increases in vehemence as its cause increases, till "the little leaven has leavened the whole lump." The disturbance accordingly is small, and imperceptible at first, the symptomatic stage comes on, and the disease breaks forth to light. The greater the ac-
tion

tion of the morbid matter§ has been, and the longer, the larger quantity of infection will be generated, and the greater will be its concentricity, and the liability in the disorder to be transmitted. By a law of the constitution, that part of the juices that is unfit for the purposes of nature, and all foreign matter in the circulation, are cast off at the emunctories. When any quantity of contagion is generated, it begins to be discharged. By its stimulus, the action of the vital powers is raised, and if the excitement of the vis vitæ be properly regulated, neither too high, nor too low, the matter will all pass off leaving the subject in a state of convalescence.

If the excitement be too high, the matter will be hurried on toward the surface, and the small orifices of the exhalents being contracted by means of sthenic Diathesis which increases the density of the solids, it will pass off with difficulty, part making its way, part in the exanthemata, catching upon the skin, producing in the small-pox an eruption plentiful in some measure proportionably to the morbid general and local diathesis, and in the Scarlatina, a correspondent efflorescence. If the matter be carried to the surface faster than it can be transmitted,

B

it

§ I make use of this *old fashioned word* as some may call it, because I know of none that is more expressive.

it must accumulate: the great advantage of cold air in the small-pox consists more especially in its removing sthenic diathesis from the surface, by which the exhalents are relaxed, and a free egress afforded the accumulating matter.

If the excitement be too low, the matter will not be sufficiently propelled. A large proportion of it remains behind. Part, however escapes at the skin; part gets no farther than the surface and collects there: an unusual quantity, falls upon parts nearer the seat of vital motion, such as the fauces, stomach and bowels, or organs of respiration. That part that remains in the circulation, continues its baneful influence, and under the operation of this, with the concurrence of increasing debility and heat, the tendency of the humours to dissolution, is rapid. The disorder gains ground, and the ability of the constitution to grapple with it, every moment diminishes.

For a farther explication of the Phœnomena of contagious diseases, we must take into view the several species of debility to which the system is liable, direct, indirect, and mixt, when the two former are united in the same subject; and the causes, either accidental, or such as exist in the constitution, as may vary them. More, relative to this, will be added directly.

I proceed now to say something concerning
 III. The

III. The specific contagion, and nature, of the Scarlatina Anginosa.

“ The contagious miasmata of exanthematic diseases” says Mr. Brown, “ contribute some, though not much, to sthenic diathesis.” The matter of some diseases, contributes more than that of others, and the matter of the same, as I have hinted before, may contribute more to sthenic diathesis in one person than in another.

To explain the difference there is in the effects of the application of substances to animal bodies we must turn our attention to the fundamental principles of living systems. These are incitability, and irritability; which, notwithstanding their intimate connection, and general, united operation, exist in some measure, independent of each other. These, together, in organized substance, constitute what has been called the VITAL PRINCIPLE: the EXCITABILITY, or capability of excitement or life of Mr. Brown, and, without being subject to the laws by him prescribed to excitability, are, what distinguish animate, from inanimate matter. The conditions of these are stamped by nature’s plastic hand, and in no two persons since the creation perhaps were exactly alike. It is this that fixes the particular temperaments or constitutions of animals, and upon their diversity, depends the diversity of constitutions among mankind. Though their

their conditions are fixed by nature, they are not immutably fixed : for these principles are under the influence of innumerable causes, consequently their conditions must be, in a greater or less degree, constantly fluctuating. A given stimulus applied to persons, different in respect to these, however similar they may appear, must possess an unequal force of action. Thus the stimulus of contagion applied to persons of different excitability in relation to it, may be attended with consequences widely different.

As the state of the fluids originally depends upon, and follows that of the abovementioned principles in the solids, we may here see another cause of the difference in the operation of contagious diseases among mankind : the natural state of the blood, may, in some people, be more favorable to the action of particular contagion than in others.

In similar constitutions, there is no doubt but the contagion of the *Scarlatina Anginosa* contributes less to sthenic diathesis than the contagion of the small-pox : hence the disposition of this last disease to sthenic diathesis must be greater than that of the former.

As the stimulus of the infectious matter of the *Scarlatina* is very small in itself, the general tendency of this malady will be to asthenic diathesis : hence it is evident, why cold, which is generally so beneficial in the
 small

small-pox, is always less so, and commonly detrimental in the Scarlatina Anginosa: notwithstanding, when assisted by the more powerful operation of other exciting powers, such as heat, more than common exercise or a full sanguine habit; or a strong tendency of constitution to inflammation, circumstances, under which, even a Typhus will be in a degree inflammatory, indirect debility may take place. At certain seasons, this is not an uncommon event. During the inflammatory state of the air that obtained about the time the yellow fever prevailed at Philadelphia, Doctor Rush observes, that the symptoms of the Scarlatina Anginosa were so violent as "frequently to require two bleedings."

What light may be derived from the following facts, it is referred to the inquisitive Physician to say.

The Scarlatina is more readily communicated to children than adults, goes harder with females than males, the relaxed, than the robust, the infirm than those in the vigor of health.

As persons often have the eruption without any affection of the fauces, so they may have the affection of the throat without any efflorescence, and instances of both have been derived from the same source of infection. Again, when a person has had the disorder exempt from any affection of the

fauces, he may afterwards have this affection, and often very seriously, but without any efflorescence. So likewise a person may have the affection of the fauces at one time, and the remainder of the disease, if I may be allowed the expression, afterwards. But, it is not every breaking out, or sore throat, that is to be called by the name of the disease under consideration.

We are next led to enquire, whether the disorder can be twice communicated to the same person? Though such instances are rare, I have no doubt but that they have existed. There are some cases that have fallen under my observation, limited as it has been, that make for the affirmative. Those who are much exposed to infection, in whom the former impressions were slight, the disorder superficial, or, in other words, if the expression is admissible, in whom the seeds of the disease were not thoroughly diffused through the system, are the candidates for this second attack. In this way, persons may be twice affected by the small-pox.

The contagion of the Scarlatina, and of all disorders, is received into the system, either immediately by the absorbents of the parts in contact; or being drawn into the fauces and lungs in the act of respiration, it lodges in the moist cells or beds of mucous with which these surfaces are stored,
and

and some part, perhaps, may pass directly through the inhaling vessels into the circulation; or being taken into the stomach with the drink or food, or in the common act of deglutition, proceeds in the rout of the channel of nourishment.

PROPHYLAXIS.

The indications of the Prophylactick scheme are

A To anticipate Predisposition.

B To prevent the application of contagion and diminish its force.

C To prevent absorption.

D To secure a mild type of the disease.

A "To anticipate Predisposition." Nothing more can be said under this head, than what would be proper in laying down the Prophylaxis of every disorder. Pay the strictest attention to the non-naturals.

B "To prevent the application of contagion," it may be well, if possible, to avoid it. Care should be taken to wash up the spits of the sick, and to remove the filth of the natural passages to some unfrequented place, or under ground.

A variety of methods have been practised to destroy the force of contagion, and these have been used, with little, or no regard to the difference of contagious diseases. That some distinction is necessary is a rational supposition. Rush says, that in the Yellow fever that prevailed at Philadelphia, there did

did not appear to be any advantage in the use of common preventatives. He was apprehensive that some of them were detrimental by affording a vehicle to the infection. "I am disposed" says he "to believe, that garlick was the only substance that was in any degree useful." Burning of gunpowder, tar, and especially vinegar: frequently applying a handkerchief dipt in vinegar or spirit, or impregnated with the fumes of camphire, vinegar, or volatile salts, to the mouth and nose, will answer a good purpose: but whether or not, these things are advantageous by absorbing and destroying the fluctuating particles of infectious matter, is yet a question that requires proof.

Let the floor be often sprinkled with vinegar, and the air be kept grateful by the fumes of agreeable aromattick substances; but, especially, let attention be paid to preserve a free circulation of air, all which would be necessary were we only to consult the comfort of the patient.

C "To prevent absorption." Perhaps the success of the means recommended under the foregoing head, depends in some measure, upon an operation referable to this third indication. The attention is here drawn to a certain balance there is between the exhalent and absorbent systems. The more uniformly free the action of the

the

the exhalents, the less will be the tendency to absorption. The means that suggest themselves are

a General.

b Local.

a It is a point of consequence, in those who are constantly exposed to keep the action of the perspiring vessels *uniform*; for if their functions be at one time considerably increased, and again left to languish, or fall as far below par as they had been raised above, such sudden increase of perspiring force, will augment the subsequent liability to absorption. Under this head may be recommended the use of aliment easily digested, frequently, and in quantity sufficient to keep the vital powers from flagging, with the occasional exhibition of such other things as shall perfectly preserve the tone of the stomach. Moderate exercise, punctuality in guarding against, or defending the constitution from the effects of too much heat, cold, and a damp air, and a steady, serene state of mind.

b Local, or the use of such things, as, when applied to the surfaces on which the contagion lights, wash off the collecting miasmata, and discharge it from the system, or stimulating the small perspiring vessels, increase their vigour and help secretion.

Let the bowels be kept in a soluble state, and after exposure for some days, a gentle aperient

aperient, such as castor oil, or manna may be exhibited, and if the stomach be foul, a little ipecac, to cleanse the first passages.

Let those who are exposed, often rinse their mouths and throats with detergent washes and gargles, in which is a portion of Spt. Salis. I shall make no apology for transcribing at this place a passage from the London Magazine for October 1759.

“To the author of the London Magazine.
Sir,

The following simple remedy for the Scarlet fever with ulcerous soar throat, generally prevents persons from catching it, and is also of great service in curing it. I hope therefore you will publish it for the public good, as it may save the lives of many persons, for the distemper is rife in many villages in Wiltshire and the neighboring counties.

Take a pint of water, two large spoonfuls of brandy, a little sugar, and twelve drops of the spirit of Sea-salt, so as to make it grateful. Let this quantity be drank every day by a man or woman, and let children drink of it as free as possible for their constant drink. Let them likewise wash their mouths with it several times in a day taking care to spit it out again. This will prevent their catching it: but when they have this disorder, they must take a much greater quantity of it every day, and gar-
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gle their mouths and throats very often with it."

In the catalogue of preventatives, tobacco, in the several modes of using it, must not be overlooked.

Whether the infection of the Small pox, measles and Scarlatina may be received into the circulation, in a person who has not previously been infected, and again discharged without inducing disease: or whether any adjustment of the constitution, may anticipate its impressions and render it innoxious, with many of the faculty is yet problematical. That this may be the case relative to other contagious diseases, is certain: and why will not the same fact apply to exanthematic disorders? A young Lady was inoculated with the infection of the Small pox: the part where the matter was applied, inflamed, suppurated and discharged, and some slight symptoms of general affection obtained. (Whether these, were more than the effects of imagination is doubtful) matter taken from the ulcer thus produced, in another person generated the genuine Small-pox. Hardly a doubt of the former person's having had the disorder subsisted, when she was re-inoculated and had the disease regularly. If the infection, may thus be discharged from a part of the body, why not, by the same powers, when received into the general circulation?

Numerous

Numerous have been the instances of persons who have been inoculated for the small pox, and continued in the hospital with a class of infected patients during the course of the malady, who, on the supposition of their having had the disease, at some future time, exposing themselves to its infection, have been unexpectedly cut off by the disorder in a natural way.

Frequent escapes from the small pox in persons, who had been, for a long time, constantly and eminently exposed, can hardly be accounted for, without admitting the supposition, that the contagious miasmata of this complaint "may be received into the circulation and again discharged without inducing disease." The same observation will apply to the *Scarlatina Anginosa*.||

Some directions relative to the point above considered will be found under our next indication, which is

D "To secure a mild type of the disease." Under this head, directions for the strictest attention to the non-naturals are indispensable.

Since the disorder so naturally inclines to debility, the exposed, ought by all means to avoid debilitating causes. If any adjustment of constitution is attempted by inward

|| See Rushes Medical enquiries and observations Vol. 1st. Page 157.

ward applications, should the object be; rather to incline the system to sthenick diathesis? In regard to this, great caution is necessary: Perhaps nothing can properly be recommended at this place, more than what may be found under the third indication. It is obvious, that, in laying down the Prophylaxis, Physicians ought to be governed in some degree, by observation of the common tendency of the epidemic; for at different seasons, the disease puts on different types.

As considerable part of the danger arises from the affection of the fauces, it may seem as though some instructions in reference to this might not be amiss: but here again we are anticipated by what has been said under the third indication. It is worthy of notice, that those means which are useful for the prevention of the disorder are calculated to render it mild.

A difference in the severity of the disorder arises from a greater and less degree of action in the contagion on the general mass. In some instances, as before hinted, this action, or fermentation, as it may be called, is so small as to afford no security against a second attack, or perhaps be entirely anticipated. What those causes are that favor this action, what can be done to counteract it, or whether any thing more than the strictest regularity in exercise, eating, drinking,

ing, avoiding heat, and a cold and damp air, merits the inquiry of practitioners.

Says an eminent author, when treating of the disorder under consideration, "when the contagion of the disease has been received into the body, a purge has prevented its being excited into action, or rendered the disorder mild throughout a whole family." This compares very well with the recommendation in the second part of our third indication; and from it, it seems evident, that the advantage of a purge before the commencement of the complaint, consists in part, only, in its removing the collecting contagion from the first passages. A mild aperient, by unloading the bowels, will serve to remove any incipient supernatural heat or agitation in the circulation from the action of infection absorbed into the system, and to solicit the discharge of the morbilic matter from the body. For this purpose, a small portion of calomel will be preferable to what was directed under the third indication. Doct. Rush recommends calomel mixed with Ipecacuhana. Attention, to prevent any, the least degree of debility is necessary; and to this end, the operation of the medicine should be followed with a gentle paregorick.

I now proceed to the history of the disorder, which I shall consider under three heads.

A THE MILDER SCARLATINA, OF SCARLATINA ANGINOSA SIMPLEX.

B THE SCARLATINA ANGINOSA.

C THE SCARLATINA ANGINOSA MALIGNA.

I make this arrangement solely for the sake of convenience: the complaint to be treated of under each of these heads is specifically the same, and differs only according to varieties of seasons, difference of constitutions, and circumstances that attend.

That the different Species, or rather modifications of this complaint, are not essentially different is evident from this obvious fact, to wit, they have been all produced from the same morbid source. If this fact be admitted, and I know it is indisputable notwithstanding the distinctions of Doct. Cullen, and his reasonings to the contrary, the argument must be conclusive.

I shall treat of the disease in the order of the several divisions as above.

A The MILDER SCARLATINA, OF SCARLATINA ANGINOSA SIMPLEX. This species obtains, when the efficient causes supervene upon the most favorable state of constitution, and under the most favorable circumstances. The complaint is inflammatory, and attended with symptoms in proportion to its violence, that are common to inflammatory complaints; such as pain in the head, back, and limbs, accompanied with agues, fever of the continued kind, thirst, nausea, and

and some white floughs, more or less, on the fauces, with inflammation of the tonsils ; though the affection of the throat is never alarming, and, sometimes, none at all. An efflorescence upon the skin makes its appearance on the second or third day. The face swells, and sometimes the limbs, the patient begins to itch, and the scarf skin to cast off in branny scales which appear successively. The eruption commonly shows itself first on the neck and breast, and extends to the extremities, soon after which, the patient begins to recover, unless circumstances, have taken place to disturb the tendency of the disease.

B The SCARLATINA ANGINOSA. The causes that dispose to a more malignant type, are

1st. Great concentricity in the contagion.

2dly. Causes that incline the system to a morbid state : a putrid disposition favors much the fatal tendency of the disease.

3dly. Causes that increase the agitation of the humours, the action of infection, and the tendency of the excitement to direct or indirect debility.

But for general causes, we are to look to the air, the universal modifier of diseases. In parts near Philadelphia, and in many places in New-England, during the sultry, peculiar state of air that pervaded the continent, and contributed to the propagation of the yellow fever in that city in 1793, the
Scarlatina

Scarlatina put on its most malignant appearances.

The complaint, under this division, begins, with chilliness, languor, oppression at the pit of the stomach, pain in the head and back, nausea, vomiting, soreness of the throat, and, frequently, many, commonly delusive, inflammatory symptoms. Faintness, dejection of spirits, and, sometimes, a purging, come on. To these may be added an inflammation of the membrana mucosa. The inflammation of the tonsils is of a shining redness, and the tumefaction of the fauces has a puffy appearance. White sloughs spread over the throat and mouth, and verge to an ash colour, or black, as the disorder inclines to a more malignant state. The breath is fetid: the throat loaded with slime or mucus, which, from its glutinous quality, and the soreness of the parts, is discharged with difficulty. The respiration is sometimes not much affected, though often laborious. The tongue is moist, especially towards the root: the eye reddish: the countenance full, flushed, and bloated, though sometimes sunk. The nostrils are inflamed, and discharge a thin acrid humour that excoriates the lip. The patient is often comatose, or he lies restless, watchful and delirious. Great heat obtains.

These are some of the principal symptoms, that have been known to take place in different subjects. The

The fever that attends in these cases, except at the beginning, when frequently it is continued and inflammatory, is commonly of the remittent kind, with an exacerbation in the after part of the day, and, now and then, again, in the succeeding morning. Sometimes however it is a Typhus.

Sometimes a sweat succeeds an exacerbation of fever. The efflorescence on the skin, makes its appearance about the third day. It often shows itself only on the neck and breast, though frequently it is general.

If the disease is violent, and no relief is afforded, the symptoms increase. If no Diarrhœa had previously obtained, it will come on at this time. "The patient begins to throw about his arms and legs, lying in a state of great inquietude," or he becomes lethargic. The constitutional powers fail. Great prostration of strength takes place. The breathing grows more laborious, the swallowing more difficult, and about the fifth or sixth day, death, by suffocation, concludes the tragedy of distress.

C The *Scarlatina Anginosa Maligna*, in its name conveys the idea of its character. The causes that dispose to it, are such as induce an extremely morbid tendency of constitution, with great concentricity in the contagion: or such causes as greatly assist the action of the infectious matter.

There

There is great prostration of vital strength, oppression at the precordia, and dejection of spirits. The fever that attends, is a Typhus of the worst kind. The pulse is frequent and irregular. The ulcers of the fauces are livid, ash-coloured or black. Purple petechia frequently make their appearance very early in the disease, and so violent is the disorder in some instances, that it equals the plague, the most furious of all diseases, in its tendency to dissolution. In such cases, very little can be expected from human exertion. §

§ Some part of the above description is taken from Doct. Wallis's ART OF PREVENTING DISEASES AND RESTORING HEALTH.

Doct. Sydenham has given us a history of the Scarlatina, that prevailed as an Epidemic unaccompanied with an affection of the throat: at least, he has said nothing about any such affection. An instance of such an Epidemic, Doct. Cullen says, he never had seen in the whole course of his practice; but, as he acknowledges, implicitly, that he had seen some instances where there was no such affection, may we not have reason to conclude, though contrary to the conclusion of this great man, that the disease of Sydenham, was of the same nature of that of which we have been treating? I have known whole families of children affected, when the Scarlatina Anginosa was first making its appearance among us, that had, some but very little, and others no affection of the throat at all; and there can be no doubt but these cases, were instances of the genuine SCARLATINA ANGINOSA: for, from them, the malady in
its

Favorable Symptoms. If the disorder is of the most simple kind: and, if not, if the sloughs be white, and the efflorescence be general, permanent and florid: if the countenance be lively, and no great debility obtains, a favorable issue may be expected.

Unfavorable symptoms. But if there be great prostration of vital strength: if a delirium or diarrhœa comes on, and the affection of the throat be extreme: but more especially, if the ulcers are livid, ash coloured, or black, the countenance become cadaverous, the eruption disappear or become dark coloured, purple spots show themselves, tears flow involuntarily, and the nose bleeds, the worst may be feared.

The indications of cure are

A General.

B Particular.

A The GENERAL INDICATIONS OF CURE are

a To diminish Sthenick Diathesis.

b To promote the determination to the surface.

c To support the vital powers.

a To

its full dress of symptoms, was transmitted by indisputable descent. Query. Was the Scarlet fever of Sydenham principally produced by the impressions of a strong constitution of air in other respects healthy? or was it such an Epidemic, as no one, or very few, have seen since his time? To conclude, was it not a high degree of the complaint at this moment Epidemic in various places, and vulgarly known by the name of RASH?

a To diminish Sthenick diathesis. In the mildest, and most simple cases, medical help is not much required. In sanguine habits, if the pulse be strong; or if symptoms bespeak a highly inflammatory state, notwithstanding what has been written to the contrary, a moderate quantity of blood may be taken from the arm. In this disorder, though evacuations are many times proper, and sometimes indispensibly necessary, still they are to be recommended with caution, and executed with a sparing hand. Perhaps no disease bears purging when intended for the purpose of reduction more illy than this. Small doses of nitre, any mild drink acidulated with vegetable acid, Elixir Vitriol, or spirit of Salt, and free dilution is almost always sufficient to answer this indication.

b As soon as the pulse begins in the least to subside, and in many instances, from the first dawning of the disease, this indication takes place: viz. *To promote the determination to the surface.*

The common people and nurses for the most part, have but this one indication, which, in their mode of expression, is to "drive it out".

A solution of Emetick Tartar has been recommended; but from the liability to produce a lax state of bowels attached to its use, it is not always to be trusted. The object seems attainable by the use of warm
diaphoretic

diaphoretic drinks, and the exhibition of such things as will tend to preserve, or increase the tone of the stomach and bowels, such as mild tonicks or astringents; infusion of saffron, mari-golds, blazing star-root, camomile flowers, a plant called "Canker weed," and many other things, celebrated among the common people, for *extraordinary cures in the Canker.*

A moderate use of brandy, or West India rum may be referred to this head. Judgment is necessary in the application of these things: more especially the latter which will not always be proper though a sparing use of them will sometimes agree, even, when the symptoms of inflammation are pretty well up. Relative to the former, the good women of the house and neighborhood may be left pretty much to themselves; they will not be very apt to give too much of them.

What might be expected from the occasional exhibition of small quantities of Laudanum?

c To support the vital powers. Wine, Brandy, Peruvian bark, and the whole class of diffusible stimuli, come in play under this third indication.

When the scheme recommended in the foregoing, is unsuccessful in answering the indication, and correcting the tendency of the systems to debility, these must be resorted

sorted to, and their use accomodated to the exigences of the constitution. When any regular, and marked remission of fever takes place, but little doubt can remain respecting the use of invigorants. In general, perhaps there is more danger of too moderate, than too liberal an application of them.

B The *Particular indications* are

d Such as relate to the general system.

e Topical.

d At the commencement of the disorder, or as soon as may be, a few grains of Ipecac should be exhibited, (unless the stomach has sufficiently evacuated itself) especially if the patient be attended with oppression and nausea. A small dose of Calomel should then be exhibited, after which, if any thing is required to be done, the bowels must be kept open by mild Clysters. Small doses of Calomel may be exhibited occasionally during the disease in the manner practised by Doct. Rush, and if there be the least tendency to a Diarrhoea, it must be checked with Laudanum.

Let the Calomel be given in such a form, that, in its passage to the stomach, some part of it may readily catch, and stick upon the ulcers of the fauces; for nothing will contribute more to bring on digestion and heal the sloughs. It will likewise promote the discharge from the salivary glands. A
 slight

light salivation, by the way, is no unfavorable symptom. After the evacuation of the first passages, a quieting draught should be administered. Guard well the stomach and bowels.

The diet should be light, consisting of barley coffee or weak broths.

e The affection of the fauces requires particular attention. An epispastick may, and ought to be applied as quick as possible to the part when the affection is considerable. In malignant cases, a cataplasm made of the bark and camomile flowers applied to the throat, and repeated once in four hours, has been highly extolled.

The fauces ought frequently to be washed with detergent gargles, in which is a portion of the spirit of sea salt. Rum lye; tincture of myrrh; an infusion of red rose leaves sweetened with honey, putting in a few drops of the spirit of sea salt, and a little brandy, may all be used to advantage.

Steam the throat often with vinegar: or a mixture of vinegar, tincture of myrrh and honey; and let the fumes be applied as warm as can be borne.

A syringe, used with care, if the sensibility of the parts do not forbid, is very convenient, and ought not to be overlooked.

If a coma takes place, a large blister should be applied to the back, or smaller ones behind the ears.


After

Hydrochloric Acid

After the removal of the disease, there frequently remains a tumefaction, and hardness in the tonsils and submaxillary glands : this commonly will go off in time, and is easily subjected by discutient applications. A mild purge completes the cure.

So diverse is the disorder at different seasons and in different places, and even in persons in the same neighborhood and time, that much depends upon the judgment of the Physician ; whether any thing, or what, is necessary to be done. The inquisitive Practitioner is therefore refered to that reserve of light and help, which every ingenious Physician possesses in the resources of his own mind.

D



A P P E N D I X.

THE Solution of salt and vinegar, as a remedy in the Disease of which I have been treating, has been so much talked of in this eastern part of the state, that it requires some consideration.

The use of salt as an article of medicine is not a new invention: Doctor Rush mentions its efficacy in the cure of Hæmoptysis: for the discovery of which he says we are indebted to an *old Woman*. To its tonick, invigorating effect relative to the first passages, in a good measure, is owing its use as an article in the catalogue of condiments.

Common salt has been noticed by various writers on the materia medica, and since its properties have long been ascertained, what reason can be given for its neglect in practice? From these, such inconveniences in relation to the human constitution are deducible, (inconveniences not merely imaginary but confirmed by experience) as will forever forbid a considerable use of it in almost every case.

A Physician lately of considerable celebrity in Windham County, from reflection upon the antiseptic quality of marine salt, took it into his head to make a trial of it in practice. His first essay was in a few cases of diarrhœas in which he was successful. How far this experiment was consistent with the principle laid down for the operation of his remedy let others judge. This however was not a new experiment. What farmer is there who has not tried it a hundred times upon sheep in the spring season, which are attended with a scouring soon after they are turned out to grass? But here candour obliges me to confess, that the practice admits of more execute than in some cases to which it has been applied, perhaps.

perhaps. Yet what shall we say of those, who proclaim salt the cure-all of the consumption, and many other diseases opposite in their causes and types? Wretched are the shifts of ignorance! Miserable the resources of bigotry!*

Upon the appearance of the Scarlatina Anginosa, salt was again resorted to by the above mentioned person. The solution of salt in vinegar began soon to be famed abroad. To consider the various circumstances that contributed to spread its fame, does not belong to this place. The following is the method of preparing and exhibiting the solution, given by the gentleman by whom it was introduced. "To any quantity of vinegar put as much fine salt as the same will dissolve. To a table spoonful of the solution add a tea-cupfull of hot water, and let the patient if an adult, once in three hours sip it down as warm as he can bear it: for a child the dose must be somewhat less."† This like many other things by which the world has been imposed upon, has been cried up for a *certain-cure*. How far such extravagant encomium favours of Quackery, and is inconsistent with the dignity of the profession, all have a right to judge. Is it not a fixt principle in medicine, that no one thing is sufficient in diseases that admit, not only of different, but opposite indications?

So

* So great has been the prejudice for Salt with some persons, that, there is scarce a disorder incident to the crazy human frame, for the removal of which it has not been recommended. For a great variety of complaints it has been denominated a *CERTAIN Cure*: but more relative to this by and by. Not only the sick have been directed to take it, but persons in health to prevent sickness. Whole families of children have been known to be drinking salt-water at once for no other reason, than, that children were apt to have worms: those who could not drink it were directed to beat nubs of salt. "Lord what is man!"

† It would have been well had the advocates of the solution never exceeded the bounds here set for its exhibition; but in most instances it has seemed as though the only rule adopted was by flattery or by force, to pour down as much as could be got down.

So numerous are the *certain-cures* that have insulted the credulity of mankind, that, at this day, it is with difficulty we withhold our suspicion from the honesty or intellects of those who palm them upon the world. At any rate, if this title fails of conveying an idea of insignificance, no ingenious Physician will fail of suspecting the virtues of the medicine to which it is attached. What must a candid mind think of one, who in the enthusiasm of a crazy faith in an indifferent article, should say, "a Doctor is a fool that looses patients in the Canker Rash." "Let me be called in season and I will be *guillotined* for every patient I shall loose"? When Jugglers and mountebanks proclaim the "sovereign efficacy" * of their nostrums, though deception is a branch of their profession, they are in some measure excusable on the grounds of their general inacquaintance with the principles of the healing art. But who are Jugglers? and what are mountebanks? When Physicians, and those who call themselves regular Physicians swagger, and pour forth such extravagant boasts of the "sovereign efficacy" of favorite remedies as bully common sense—what?—write not my pen the stigmatizing sentence, and while humanity weeps o'er the frailties of men, Charity pour thy healing balm. Perhaps no disorder puts on a greater variety of forms, or requires more variety in the method of treatment than the disease in question.

I shall endeavor to prove, notwithstanding the praises that have been bestowed upon *salt and vinegar*, and the patronage it has met with from various orders

* Said a gentleman, who was lately called to arrest the mortality in a neighboring town, "you shall see" (to a number of the faculty in consultation,) "you shall now see the sovereign efficacy of salt and vinegar. Here is a boy just taken with the Canker Rash, and in a day or two he shall be able to drive plough." The next day the boy died, and about that time two others in the same family under his immediate care.

broad : neighbor tells it to neighbor, and cousin to cousin : the disorder breaks out again and again : twenty good old matrons come round and tell what cured cousin Jonathan's or Mr. Tracy's child : The medicine is tried, and perhaps the patient gets well : if so, a GREAT CURE is performed, whether the article given had any operation or not : but if the patient dies, it makes no odds, for Caprice is ever ready with an excuse : perhaps the medicine was not given soon enough, or the patient had worms or some other disease in connection : thus, though, the ostensible means every day prove unsuccessful, the bubble brightens and delusion spreads.

With respect to merit, it is the perpetuity of success, and this alone that can substantiate the claim of any medicine : for so liable are even Physicians to deception, that in making deductions, it is often as necessary to distrust facts as theories. We shall see by and by, whether or not the solution has this distinguishing mark enstamped upon its character.

Who is there but has heard of the great fame of tar-water ? This was once cried up for a certain cure of almost every disease, and though serviceable in many, -it has now fallen into disuse, as every other, inconsiderable medicine will, the character of which so far *out runs* the truth. Not many years ago, a poor man in London, being in a declining way and unable to procure lodgings, took up his abode in a horse-stable. Recovering, what he owed to strength of constitution and the goodness of heaven, was, by the multitude, attributed to the "sovereign efficacy" of stud-horse effluvia. All the stables that could be procured, were presently fixed up for the reception of consumptive noblemen and opulent citizens. Do we hear of any such cures in our days ?

That ignorance of the principles of the healing art, which incapacitates for judging of the operations

tions of medicines, and prevents a seasonable detection of the absolute insufficiency of some, joined with an obstinate blindness which is inseparable from vulgar prejudice, prevents a like observance of their effects when positively detrimental. Such, are causes, that, in no small degree, have contributed to preserve the credit of the solution.

It may be to our purpose to mention, that, at the very time *Salt and Vinegar* was preached up in these parts, with more than popish enthusiasm, and its use in many instances established with inquisitional rigor, the same game was played off in the County of Berkshire (Massachusetts) with West-India Rum. A swaggering Practitioner boasted that he was master of the "throat distemper:" despising all medicines he used nothing but rum. The disorder happened to be of a malignant type and very mortal. People were infatuated as they usually are in such cases, and the tricks and noise of the braggadocio procured him an immense accession of business. Business, we may observe, is the only object of empiricism, for ignoble minds are incapable of principles of general benevolence. For a while, so great was the rage for rum, that its advocate had, at one time, one or two persons under him, who were not bred to the profession, as Journey-men, who made it their business to retail *strong water* to the gaping, frightened children of the mountains. As rum is no bad medicine, its use was frequently no doubt attended with advantage. It not seldom, however, proved unsuccessful. At any rate, it ought never to have been the subject of implicit confidence: and no other article that ever the creation afforded. So long as diseases of the same name, are so different in character, and the constitutions of men are so various, it is folly, it is an insult upon reason, it is quackery, to pretend, that exactly the same method of cure is applicable to all.

The

The use of rum at length fell to its proper sphere, and how long will it be, before *salt and vinegar* shall be little known but as an article of diet?

Pity sighs o'er the weakness and imperfections of mankind: at the many instances of folly, deception, absurdity, and want of discernment in the better informed part of the community, conscious of the dignity of human nature, a noble principle of the soul hides its face and blushes.

From the foregoing, this plain inference arises viz. from vulgar assertions, the general reception of any medicine, the temporary applauses of the more discerning part of the community, and the intemperate decisions of even Physicians themselves, no conclusions relative to its virtues, can, without great caution be drawn.

Much has been said about the extraordinary success of the solution. Such success, for arguments sake, I am willing to admit, and even this goes not to a demonstration of the efficacy of the CATHOLICON. Humanity may have reason perhaps to shudder at the idea, that too many Physicians, even at this day, have not a right understanding of the Disease I have been considering, and that a pernicious method of cure may have been the consequence of their want of information. Bad treatment, may make a mild disease mortal. How far such practice may be applied to Physicians in these parts, I am unable to say; but the above sentiment is corroborated by a reflection on the custom of too indiscriminate bleeding, puking, and purging, unhappily prevalent among many Physicians. The pretended success, may, in some instances, be owing to the neglect of a method of cure less safe than the method assumed.

Another circumstance is worthy of consideration: It is well known, that the *Scarlatina Anginosa*, in these parts, in the spring, summer and autumn of 1794 when
the

the credit of the solution was upon the increase, was generally, of the mild, more simple, inflammatory kind. Cases of this description, will do well enough under almost any treatment, and the more simple the practice, the better. I have known several families of children, who have recovered without the aid of either *crocus* or salt. Some have got well, even in spite of means used to prevent it. Many have been the *great cures* performed upon subjects that never required medical help, and would have done better without the assistance they received. Yes, done better without the use of the things exhibited: I repeat it, that mankind may learn how miserably they may be imposed upon by practice, and how inadequate they are to judge upon short acquaintance even of the *success* of practitioners.

At this day (July 20) there are frequent instances where very little is necessary to be done. It is idle to tell of cases where patients have been " put upon their legs in two days time ;" innumerable have been such instances where *salt and vinegar* was not thought of; and as many where the patients were not taken off their legs. To make safe inferences, an impartial knowledge of facts is requisite. Why dont they tell us of the many instances in which it procured, not only not the least evidence of relief, but on the contrary, by its operation, induced the most horrid signs of distress and anguish, and almost, if not quite superceded the advantage of constitutional strength?

For arguments sake I have admitted that "*extraordinary success*" has attended the use of the *solution*. Except for arguments sake, I should have done it with many grains of allowance. I know much has been said to make it out, and most people have been disposed to believe: but from whom have we the account of this extraordinary success? From professed advocates, persons strongly interested, or blind-
ed.

ed by ignorance or prejudice, and even from these, sometimes, with such liberties with language as almost afford ground for suspicions relative to veracity. Vain are the pretences, That "the Physician was not sent for soon enough," "the solution was left uncovered," "something got into it" "the patient could not be made to take enough of it," "relapsed," "had worms," or "some other disease in connection." Subterfuges like these must meet with contempt unless built on the strongest foundations: Yet shifts as ignoble have been practiced, and the authors of them, after repeatedly loosing the subjects of their pickling scheme, thus dressing up conscience in a straight waist-coat, have had the courage to say they "never lost a patient." Why should excuses like the above, be allowed the advocates of the solution, when none is admitted for any other mode of treatment?

What shall we say of such, who, to save their own credit, possess a happy dexterity in imposing the honor of death upon others?

To ascertain the power and virtue of any medicine, it ought to be taken alone: and certainly, no other remedy is necessary in cases where one individual article possesses "sovereign infallible efficacy." Relative to the practice with *salt and vinegar*, as far as my acquaintance extends, this has not been the case. The bark, wine, brandy, epispasticks, laudanum, and other things, possessing incomparably more virtue than the solution, have been called in to help out the cure and keep up the credit of *salt and vinegar*. In the effects of the joint operation of all these, or several of them and the solution, who, in the name of common sense, without immediate inspiration from above, can tell how much is to be referred to the action of any one of them? But, it may be answered, such trial has been made.—Yes, and if the patient

patient had good luck, he lived through it; what more can be said? A want of confidence in your *salt and vinegar* in one single instance, betrays a cowardice, a distrust of its "sovereign efficacy" not much to its credit. "Do you depend upon it?" said a gentleman of the faculty to an advocate of the solution, "do you depend upon it Doctor?" "We depend upon it" say he "with other things."

I will say one thing farther respecting the great success of salt and vinegar: as far as my observation has gone, more have died under the use of it than under any other method of cure. Alas! all medicines are fallible, and the sons of apostate Adam are yet subject to the curse pronounced upon him from the mouth of avenging Deity, "dust thou art, and unto dust thou shalt return."

The argument drawn from the antiseptick quality of the solution is too frivolous to need a serious refutation.

Let no one imagine that I mean to stigmatize the solution as altogether an unsafe or pernicious medicine. I will only observe here, that its true merit falls infinitely short of the character which has too generally been given it, and the confidence of which it has been the subject. Fatal may have been this confidence in some instances, by preventing recurrence to means more worthy of dependence.

The following observations relative to the use of the *solution*, are predicated on actual experiment.

The medicine is a tonic, and as a tonic solely, can we expect any benefit from its general operation. But its invigorating force is very small in comparison to many things which have not half the inconveniences attendant on the use of *salt and vinegar*. Those cases in which any, the least advantage, can be expected from the use of the solution, are such as are remote from a malignant tendency, where the diathesis is not so high as to render a moderate tonic inapplicable, or so low as to require more invigorating power. Still, in such cases it is not superior to a thousand things, which have been, and are still used, and which in general are much more agreeable; in extreme cases, it is dangerous placing much dependence upon it, unless

unless it be with "other things." As a gargarism, it is inferior to most that are in use; but for fumigation, the solution has a claim to notice. When the throat is loaded with mucus, it wonderfully assists its discharge from the fauces; but a syringe with any pleasant, detergent wash will do this, without producing the inconveniences that result from forcing down the ulcerated throat, so large a quantity of acrid saline liquid. When given in the quantity prescribed, it must often be, not only a harsh, but an unsafe medicine. Among the inconveniences that are attached to the use of the solution, and which most uniformly and necessarily attends, I must not forget to mention that of an insatiable thirst. Of all bodily affections, perhaps there is none, not even excepting that of pain itself, more wasting to the vital strength than this. The patient must drink the more, it will be said; where free dilution is necessary he may; but where it is not, what must be the consequence?

There have been repeated instances, where the practice with the solution has been driven to extremity under proofs of the most exquisite distress in the unhappy patient. To see it forced down an infants throat, when under the necessity to hold its hands by main strength to keep it from tearing out its tongue, must occasion sensations from which the benevolent mind must revolt. "Who would think of using it on a raw sore?" said a gentleman of the faculty; "I should not on a horse" replied a farrier.

To inferences of ill consequences attendant on the use of the solution, we are helped by a knowledge of diseases that depend on too saline a state of the juices. I have observed in several instances, that persons, who had taken large quantities of the solution, continued a long while convalescents. I had lately under my care a person who past through the ordeal more than five months ago.

A child who had been drenched off, remained sometime weak and disordered and then died. Upon dissection, the finishing stroke appeared to be the HYDROCEPHALUS INTERNUS.

To conclude, after all the boasted excellence of *salt, and vinegar*, it is fallible, and though a little of it may sometimes be attended with advantage, as a general medicine it is unworthy of dependence, and merits but little more attention, than just to prevent its doing mischief.

The business of introducing new medicines to public use, relative to the health and happiness of society, is serious and important. Every such article ought to undergo a thorough examination, and any person has a right to enquire into the merits of *salt and vinegar*.

The man who discovers a new road to health, alas! so numerous are the ways to Death, deserves well of society. Happy is he, who, as the winter of life advances, can set down, and reflect on former times, with a soothing consciousness of his having saved the lives of many of his fellow creatures.

F I N I S.

Hartford, Conn.

Dec^r 1st, 1874

apt Surg - John S. Billings, U.S.A.

Lib^r - Surgeon General's Office.

Dear Sir:

In your grand Catalogue, I do not see the title of the little tract - now somewhat rare - which I send you by to day's mail. The author, Theodorus Clark, practised medicine in the town of Lebanon, Conn.

Yours truly,

J. Hammond Trumbull

L. Hammond Cumberly

