

**On scarlatina and its successful treatment by the acidum aceticum dilutum
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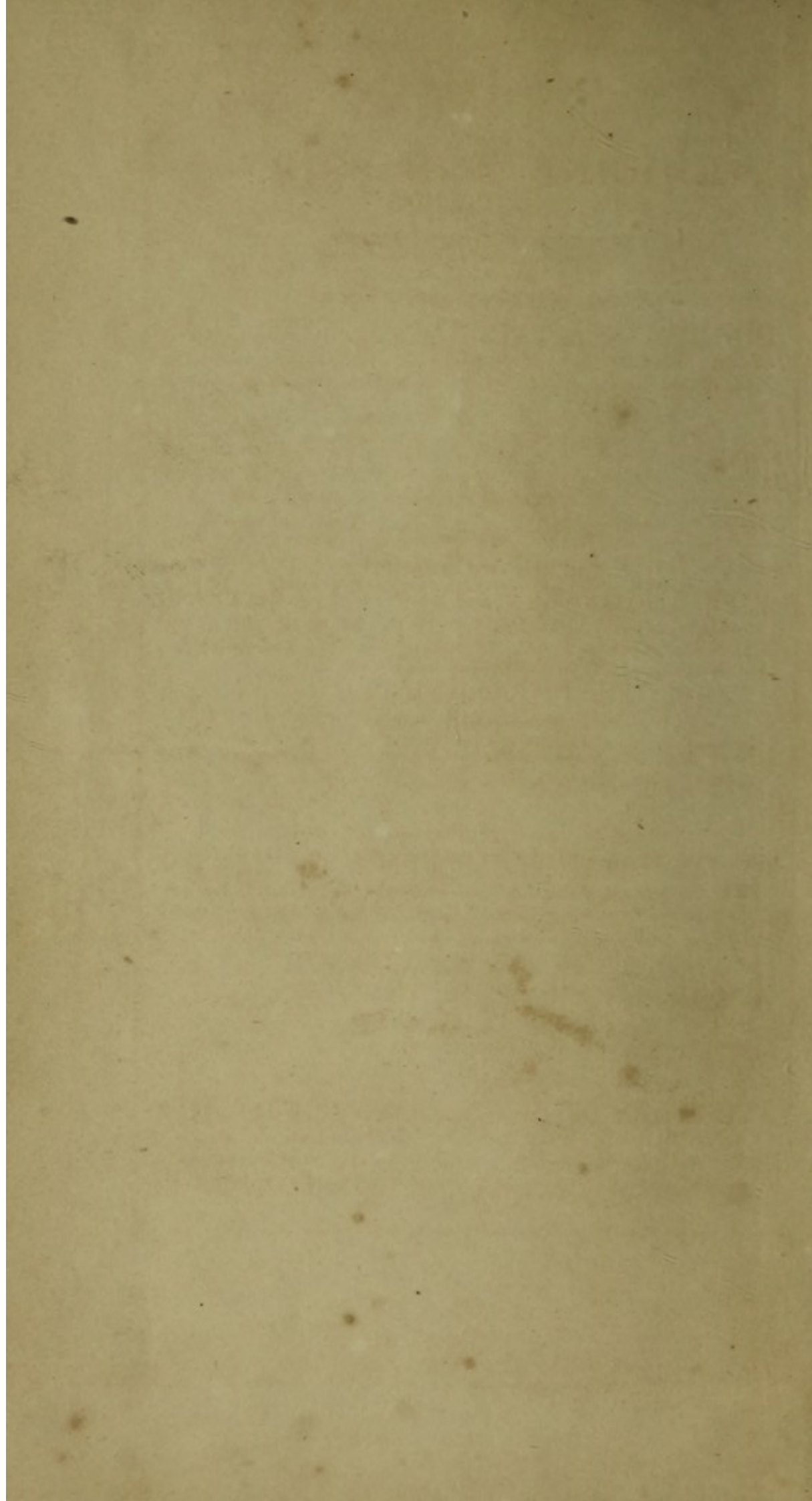
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ISAAC. B. BROWN.

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&c., &c., &c.

MY DEAR SIR,

IN offering these Practical Remarks on Scarlatina to my Professional Brethren, and, through them, to the public at large, under the sanction of your name, I have an opportunity of publicly thanking you for very many acts of kindness, and of saying how highly I prize your friendship and esteem, and, moreover, how deeply sensible I am of the immense importance of bringing out this little Work under your special auspices.

That you may long be spared to benefit your fellow-creatures by that sound judgment, and kind and watchful care, which has always characterized your practice, is the sincere and earnest wish of

My dear SIR,

Your faithful and obliged Servant,

I. B. BROWN.

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ERRATA.

Page 4, line 19, for *puss*, read *pus*.

Page 7, line 2, for *putrifactive*, read *putrefactive*.

Page 19, line 7, for *set*, read *sit*.

Page 64, line 18, for *occurring*, read *occurring*.

PRELIMINARY REMARKS.

IN venturing to record my experience of a disease so fatal as Scarlatina (or Scarlet Fever), in the form of a distinct treatise, I feel that some explanation of my reasons is necessary before entering more fully into details. More than nine years since I had the painful trial of losing my eldest child, when scarcely two years of age, from Scarlet Fever, although attended by two of the most eminent Practitioners of the day; and shortly afterwards, besides several other patients, one noble little boy the pride of his fond parents' hearts. The first circumstance was enough to make

me think very seriously over this disease, which appeared to baffle all human efforts: and I felt, that, surely some plan of treatment could be devised, that would, at all events, in some degree modify or arrest it. I saw my own child die after a fortnight's illness, from sloughing throat; I saw the little boy die after forty-eight hours' illness, from complete prostration. I argued in the case of my own child, that something should have been earlier done to stop the sloughing of the tonsils and fauces; and, in the other case, that something should have been done to avoid such complete failure of all vital power. Since then, I have seen this disease making most frightful ravages in different families, having no respect to station in society; both rich and poor have alike felt its fatal effects, and every day the public journals have noticed the death of an only child, a beloved wife, or of two or three, and even four children in one family in a few

days; indeed, I know of one family who lost all their five children in a fortnight! The bills of mortality in London alone, have exhibited the frightful number of from fifty to one hundred deaths weekly from Scarlatina, this disease far exceeding any other in its fatality. If such has been the case in London, what must the aggregate amount of its victims through England and Wales alone be? To say that thousands die yearly from this one disease, but faintly expresses the havoc it commits. We find from official documents that, during the thirteen weeks ending the 28th of December last, the deaths from Scarlatina were 872 in London; and from the same source (the Report of the Registrar General) in the year 1840, the deaths were, in England and Wales alone, 19,816, from the same cause. Surely, therefore, any plan of treatment which offers the chance of mitigating this scourge, must be acceptable to every member of the Medical Profession,

and to every member of society at large, and needs no apology from me for placing the results of my experience before the public eye. I have not done so, before trying the plan of treatment I recommend for at least six years in some hundreds of cases; and during that time, have never lost a single case where I have seen the patient in the first stage, and where my treatment has been fairly carried out by the parents and attendants; whereas, before trying this treatment, I lost many, in common with every Medical friend I knew. I know that many will doubt this assertion, and say, "He has never had any really bad cases:" but the faithful narration of a few of the cases I have treated, will remove that idea; and, I must beg that it may be distinctly understood, my statements are all founded on facts, and my deductions therefore deserving consideration.

I am aware that my theory is somewhat

novel, and doubtless will be severely criticised by many, and it may be open to all the objections that can be urged against it; but, however erroneous the theory may be, I know the practice is good; and believing the best way to benefit society and the science of my profession to be, the collation of facts from bed-side observations, and the faithful narration of them, I have thought some good would follow a more extended trial of a plan which has, as I have said before, been with me peculiarly successful. I am fully aware that many have thought their own plans of treating this disease successful, and doubtless truly so; yet, every method which can assist in arresting this, or any other disease, ought to be received with full consideration, and allowed a fair trial.

The science of the Medical Profession is one that always admits of improvement; and, in proportion as man studies cause

and effect, it advances in usefulness; and I believe that it is the wise and merciful intention of our Creator, to allow man to discover remedies for disease, and that He has purposely placed a remedy within his reach for almost every malady incidental to the human race.

More than six years since, whilst earnestly watching this disease, and trying all the remedies which had appeared in different works, I was struck by the observation of my brother, Mr. George Brown, then Assistant to Mr. George Yates Hunter, of Margate, a man of great observation, a careful and successful practitioner, that he (Mr. Hunter,) had frequently seen the use of acetic acid (distilled vinegar) most beneficial in Scarlet Fever, and that he had seldom or never lost a patient from that disease. Knowing my brother's rigid spirit of inquiry, I was induced to pay more attention to this observation than I should otherwise have

done; and it struck me that acetic acid being considered a powerful antiseptic or destroyer of putrefaction, and also a good styptic or having the power to staunch blood, there might be more in this practice than at first met the eye; and although I knew the advantages of treating Scarlet Fever in the country, where the air was pure and fresh, were much greater than in any large town, I could not but feel that this same plan of treatment, assisted by some local auxiliaries, might be of the greatest benefit, even in the largest and most densely populated towns. On the very first opportunity (which soon offered itself) I put it into practice, with some additions as to local applications, on which I lay *great stress* in the treatment; and I am so convinced of the efficacy of the plan, that I can no longer confine it to my own immediate practice and that of some few professional friends; firmly believing that if fairly and *systematically*

carried out, it will very materially lessen the number of deaths from this frightful disease; and if only one life be spared through my observations, I shall feel that good has accrued of such a nature as no earthly recompence can equal. I do not by any means wish it to be inferred that every case of Scarlet Fever can be cured by this or any other plan; but I do most conscientiously believe that many who would be otherwise lost, may by the remedies recommended be saved.

My object in offering this little Treatise to my Professional Brethren, and through them to the public at large, is not to write a history of the various plans of treatment which have been tried, and of their results, but simply to place on record certain facts: I shall therefore be excused for making all my observations as brief as possible. I purposely avoid using unnecessarily technical or professional terms,

because I wish this to be read by parents and heads of families, as well as by members of the Medical profession; but I do not intend that any non-professional person should attempt to put into practice the plan of treatment; on the contrary, I cannot too forcibly impress upon every one who is not duly qualified to practice the Medical science, the danger of attempting to carry out this or any other plan, without first obtaining the best advice the locality in which they reside affords. This hint cannot be too forcibly impressed on the minds of the non-professional public, not only as regards this disease but every other: many lives are annually lost by the injudicious administration of medicines by parents and others before applying for proper assistance.

I propose first giving a brief detail of the history of the disease; its nature and different forms; then to illustrate my views

by cases, dwelling upon certain parts of treatment; and thirdly, to sum up by making a few general observations on some of the more striking points of treatment, or peculiarities of the disease.

SCARLET FEVER.

Derivation — Scarlatina and Scarlet Fever synonymous—
Origin — Both contagious and infectious—Three Forms :
Simplex, Anginosa, Maligna—Mucous Membranes affected
in this disease — Epidemic — Poison acts upon blood—
Acetic Acid, powerful remedial agent.

THIS fever derives its name from *Scarlatto*, the Italian for deep red, and is called, medically, *Scarlatina*, being the modern Latin name for Scarlet Fever. It is a common error amongst non-professional persons to consider Scarlatina (from the Italian diminutive, *ina*) as a milder form of Scarlet Fever.

This disease is of modern origin, and I cannot better express myself than by copying the words of Dr. George Gregory, in his excellent work on "The Practice of Physic." He says, "No mention of it is made by the ancient or Arabian authors; and the first time it is distinctly noticed, is but little more than 200 years ago. It has been suspected that the contagion came originally

from Africa; be this as it may, it first shewed itself in a severe form in Spain in 1610, from whence it spread to Naples, where it raged epidemically in 1618. In 1689 the same disease made its appearance in London, and was described by Dr. Morton, though not with the accuracy of the first Spanish and Italian authors. In 1735 it broke out in North America, and spread gradually but slowly over the Continent. One of the most curious circumstances in the history of the disease is the slowness of its diffusion."

The Scarlet Fever is highly contagious and infectious; it often attacks the same person more than once: I have seen several cases of second attack; lately a case of third attack, producing deafness in both ears. It is more general about Autumn and Winter: it more generally attacks children and young persons, but no age is exempted from it. When this disease first appeared in Europe it assumed a most malignant character, but has since put on different forms, and has been divided into three distinct forms, *viz.*:—

1st.—*Scarlatina Simplex*; or, Simple Scarlet Fever.

2nd.—*Scarlatina Anginosa*; denoting the intermediate form: *anginosa* signifying strangulatory.

3rd. — *Scarlatina Maligna*; or, Malignant Fever.

Scarlatina Simplex, or Simple Scarlet Fever, is known by its mildness; the efflorescence or rash, is of a bright scarlet, but not very general; the tonsils and fauces are not much affected; only a sense of uneasiness in swallowing, and but little constitutional disturbance. The fever is decided on the first day, exhibits its redness on the second, and disappears on the fourth or fifth. Desquamation or peeling takes place from a week to ten days afterwards; the tongue becomes red, or the little papillæ of the tongue rise up above the surface, thus exhibiting one of the strongest distinguishing marks; the face is often sensibly swelled about the third day, and the eyes are suffused.

The *Scarlatina Anginosa*, is the most common form of the disease; and on the first appearance we have coldness with shivering, sickness, nausea, restlessness, quick and depressed pulse, frequent and laborious breathing, pain in the head over

the temples, prostration of all the vital powers, the tonsils and fauces become inflamed, voice thick, deglutition difficult, several small specks appear on the tonsils, which, if not soon arrested, extend and form superficial ulcers; the breath is extremely fœtid, the throat is clogged with a viscid phlegm; the tongue is at first coated with white fur, and after two or three days, becomes of a *strawberry red*; the efflorescence generally appears about the third day, and covers the entire body with a bright scarlet, resembling in color a boiled lobster, but brings no relief; on the contrary, the symptoms appear aggravated, the countenance expresses anxiety, the eyes are suffused, the skin is extremely hot, more so than in any other fever in our climate. There is great debility after recovery, and, not unusually, permanent deafness, and very often an offensive discharge of puss from the ears for many months.

The *Scarlatina Maligna*, or Malignant Fever, is ushered in by rigors, with giddiness, acute headache, vomiting or purging, and extreme prostration of strength; the tongue, teeth and lips are covered with a brown or black incrustation; a dullness of the eyes, deep red and swelled

cheeks, great soreness of the throat, which soon runs into deep dark sloughs, rendering the breath most offensive; delirium; laborious and quick breathing; the deglutition most painful and difficult; the tongue often excoriated by the slightest touch; the parotid glands swell; an acrid discharge flows from the nostrils, excoriating the nose and lips wherever it comes in contact. This discharge, although first thin, becomes thick and yellowish; the gums exhibit great proneness to bleeding, and the nose, on the slightest provocation, will often bleed to a most alarming extent; the pulse is small, irregular, and often indistinct; the rash does not come out regularly, but on the second, third, and even fourth day, appearing in slight patches over the body, seldom or ever covering the entire surface; it is a livid, dark and dusky hue, and soon becomes brown; it sometimes disappears a few hours after it has come out, and returns in two or three days. Severe diarrhœa often accompanies this virulent disease, as well as constant hectic, for some days. The rash in this form of the disease more nearly resembles measles than in any of the other forms, and requires careful observation and discrimina-

tion to distinguish between them ; but in measles we almost always have cough, sneezing and running of the nose, and watery eye ; whereas these symptoms are seldom attendant on Scarlet Fever ; or, if ever, in a slight degree.

Although there are three distinct forms as I have here described, yet the first will sometimes run into the second, if not stopt by prompt measures, especially as to the throat ; and the second frequently runs into the third or malignant form, particularly where attention is not carefully given to the fauces and tonsils. It must be observed, that in this disease, the mucous membranes are particularly affected ; that is, the lining membrane of the nose, eyes, fauces, throat and entire intestinal canal, exhibiting the same character of redness as the skin ; and this mucous affection is as much a peculiarity of the disease, as the affection of the lungs is of measles. It may be asked, "Why is this disease so fatal in its effects?" In answering this question I may be allowed to say that the disease is epidemic ; that is, emanating from, and carried through, a peculiar state of the atmosphere, from place to place, affecting many persons at the same time ; and it

appears instantly to act upon the blood as a poison of a putrifactive character; and that the blood, after being so acted upon, possesses more serum and less fibrin; this is proved by many circumstances; as, for instance, if the nose or lips bleed, or a finger be cut during the fever, the blood is quite watery, and the ruptured vessel does not stop bleeding because there is not sufficient fibrin to form a plug at its orifice. If this state of blood continue, the whole body very soon becomes impregnated with a poor unhealthy supply, hence the prostration so constantly found in this disease, coupled with defective digestion and assimilation; and it is evident this state of the blood cannot long continue without producing the most frightful ravages upon the constitution; as the black and sloughing throat; the diarrhoea; exhaustion and delirium which precede death: hence the enquiry must be, How can this state of things be avoided? I believe not by any of the following published plans, as far as I have seen; such as bleeding, saline purgatives, and saline febrifuges; for if my view of the case be a correct one, it must be evident the abstraction of blood cannot be right, because it will produce

more exhaustion and loss of vital power. Saline purgatives for the same reason are bad, because they irritate the already highly vascular condition of the mucous membrane, and frequently produce diarrhœa which cannot be restrained. Some salines not only irritate the mucous membrane, but the carbonic acid gas contained in them has a decided lowering influence upon the blood: and emetics which have been strongly recommended by some authors, are in my opinion equally injurious, from the debilitating effects they produce. From these different remedies I except the stimulating plan, which is often very successful, and accords with my opinion as to the disease being one of debility. Now I believe the first thing to be considered is, How can the blood be altered or purified of its virulent poison, and how can it be replenished when so altered or purified:—Secondly—How can the vascularity of the mucous membrane be subdued or allayed:—And, thirdly—What can be done to arrest the ulceration or sloughing of the tonsils and fauces, which frequently is the direct cause of death by preventing free respiration.

Now, to the first question. How can the

blood be purified of its virulent poison?—By administering a medicine which is decidedly antiseptic or a destroyer of putrefaction. Secondly, to the question; How can the vascularity of the mucous membrane be subdued or allayed?—By avoiding any irritant purgatives, and by administering that which will act as a febrifuge and an astringent of the blood-vessels at the same time. Thirdly—What can be done to arrest the sloughing or ulceration of the tonsils and fauces?—Arrest the first commencement of the ulceration by direct applications to the entire surface of the parts.

Now I believe, acetic acid (distilled vinegar) which is quickly taken up by the veins of the stomach, is the best remedy for these various forms of the disease. It is well known that acetic acid is a powerful antiseptic, a good styptic, and also a most refreshing febrifuge; it is also well known that it materially assists digestion; thus it acts as a powerful auxiliary in assisting assimilation, and consequently a greater supply of chyle is obtained. Here then we have all we want, for destroying the poison of the blood, for allaying the vascular state of

the mucous membrane, for preventing hemorrhage from the blood-vessels, astringing the tonsils and fauces, and for checking the febrile action and supplying fresh chyle to the blood. But it will be said, Surely you do not rely on acetic acid alone? I reply, certainly not; I use other remedies as *auxiliaries*; but my sheet-anchor is acetic acid, from the beginning to end of the treatment.

CHAPTER II.

Treatment of — Caustic — Liniment — Poultice — Calomel —
Castor Oil and Distilled Vinegar — Patient kept in bed —
Temperature equal and cool — Bed-furniture, &c., removed
— Chloride of Lime freely used — Diet — Night Clothes not
removed — Attention to the Throat.

WHEN I first visit a child with Scarlatina at its first stage, that is, with a white chalky-looking tongue, quick pulse, hot skin, and about the arms, shoulders and face, a scarlet-looking rash; I examine the tonsils and fauces, and finding them with the same character of redness or scarlet blush as the face, I instantly apply, freely, caustic in the stick, order the following liniment to the throat, on flannel, or warm poultices where the irritability of the skin will not allow the use of the liniment:—

R. Soap Liniment, one ounce.
Camphor ditto, two drachms.
Laudanum, two drachms. mix.

Or if it be not quite convenient to obtain this

liniment, a mustard poultice made of mustard and cold vinegar; and as soon as the liniment or poultice has had the desired effect, I order a linseed poultice from ear to ear, to be changed every three hours and never left off; I give a dose of calomel, two grains to a child under three years, and three grains above that age; and two hours afterwards a tea or dessert spoonful of castor oil. If, as it sometimes happens, the patient cannot keep the oil on the stomach, I give a dose of rhubarb and magnesia; but I always first try the oil; and it will not unfrequently happen that the patient can retain the oil, although the parents tell you that it has never before been able to do so. My reasons for preferring castor oil, or some very mild and bland aperient, is, that the whole mucous membrane throughout the intestinal canal being under a state of irritation, great care should be had not to further irritate it by any purgative or saline aperient, as I have frequently seen diarrhœa follow a dose of Epsom salts, or even sulphate of potash, which has debilitated the patient, caused increased sore throat, and ended in death. As soon as the bowels are relieved,

I give to a child under three years of age the following mixture:—

Take of Diluted Distilled Vinegar, two drachms.

Syrup, four drachms.

Distilled Water, two ounces.

Mix and take a fourth part every three hours.

And in proportion to the age increasing the quantity of acetic acid: and after fifteen, I give two drachms as a dose, and gradually increase it in proportion to the degree of fever. I mean by the dilute acid, that which is made of one part of the acetic acid of the Pharmacopœia to seven parts of distilled water:—as,

R. Distilled Vinegar, one part.

Distilled Water, seven parts.

I desire the patient never to be removed from bed, and inculcate the necessity of maintaining an equable and cool temperature of the body, by keeping strictly to the one room where the fever first shewed itself; as any change of temperature during the febrile stage is often a certain means of checking free efflorescence; and in this disease a check, however slight, is rarely, if ever got over. I order the bed-furniture, carpets, and curtains all out of the room, sprinkle chloride

of lime and water freely over the floor, and in the passages leading to the room. I give at first bland diluents, as barley water, gruel or arrow root; but as I look upon this disease as one requiring early support, I soon give (frequently on the second day) veal, chicken, or beef tea, with some arrow root in it; and where the fever is of the anginose character, I begin with strong nourishment on the second day; good beef tea or soup, port wine in arrow root, and sometimes brandy as well; and I have never yet seen any danger from this diet, even in those cases which have been considered inflammatory, and, as some would affirm, requiring bleeding or emetics. I never allow the night clothes to be removed during the efflorescence; and believing the most effectual way to save my patient to be, strict attention to the tonsils and fauces, I apply once, twice or thrice during the day a solution of caustic. (Nitrate of silver in the proportion of ten grains to one ounce of distilled water.) The application is effected by tying a small piece of sponge on the end of a black-lead pencil, or a thin piece of stick, dipping it in the solution, pressing down the tongue with a spoon, and

sponging the tonsils and fauces thoroughly, removing all that peculiar viscid phlegm which is so marked in this disease; the relief this gives the patient is most striking: respiration, which was most difficult and short before, now becomes free and full; the pulse soon partakes of the benefit, and the countenance is relieved from anxiety and distress, and assumes a more cheerful appearance; deglutition, before difficult and almost impossible, becomes comparatively easy, consequently nutriment can be readily given; and I again repeat, that I lay great stress on the judicious and careful administration of nutriment. I shall, however, more fully explain my views by giving some cases from my note book, in the very language I noted them at the time.

CHAPTER III.

Cases :—Miss S.'s Case—Simple Fever—Practical Remarks.—
Miss Isabella N.'s Case—S. anginosa or Throat Fever—
Practical Remarks.—Miss Isabella F.'s Case—bordering
on Malignant Fever—Practical Remarks.—Mrs. F.'s Case
—Fever with great exhaustion—Practical Remarks.

THE following case is one of Simple Fever,
bordering on the S. anginosa.

October 29th, 1843; Ten, A.M.—Was sent for
to see Miss S., aged nine years, living in O—
Square, just brought home from school at
Clapham.

The rash fully out over the body and extremities,
of a deep scarlet color; skin hot; pulse 120;
tongue white and chalky in appearance. Bowels
had been opened by some senna tea; tonsils
inflamed, but could swallow without much diffi-
culty. Ordered her three grains of calomel with
powdered sugar, to be placed dry on the tongue,
and to take a dessert spoonful of castor oil two
hours afterwards: to apply a piece of flannel
from ear to ear round the throat, saturated with

the following liniment, and to be kept constantly moist :—

R. Soap Liniment, one ounce.
Camphor ditto, two drachms.
Laudanum, two drachms. mix.

After the operation of the oil, to take the following mixture :—

Take of Distilled Vinegar, diluted, one ounce.
Syrup, four drachms.
Distilled Water to six ounces.

Mix and take two table-spoonsful every four hours.

Ten, P.M.—Bowels copiously relieved ; tongue cleaner ; slight delirium ; pulse 120 ; tonsils covered with a thick viscid secretion. Ordered the following solution :—

Take of Nitrate of Silver, ten grains.
Distilled Water, one ounce. mix.

A piece of sponge tied on a quill, dipped in this and applied freely to the throat ; and to continue the acid mixture, and the liniment to the throat.

30th, Nine, A.M.—Passed a comfortable night ; bowels relieved ; tongue red like a strawberry ; throat better ; pulse 110. To apply solution of nitrate of silver, as last night ; to continue the liniment externally ; and over the flannel to apply a linseed poultice ; and to continue the acid mixture.

Ten, P.M. — Still going on favorably: to continue every thing as in the morning.

31st, Half-past Nine, A.M. — The rash gradually disappearing; skin much cooler; bowels relieved; pulse 110; throat better. To continue applications, internally and externally, as before, and acid mixture: to have some mutton broth made of the lean of a chop cut up, and half-a-pint of boiling water poured over it; to stand a quarter of an hour, strained, and to be taken with a little toasted bread.

Half-past Nine, P.M. — Better in every respect. To continue every thing as in the morning, except the broth.

September 1st, Half-past Nine, A.M. — Had a good night; bowels relieved; dressed the throat as before. To have some more broth; pulse 108; mixture continued, with the addition of diluted distilled vinegar, four drachms. Not to leave her bed.

2nd, Half-past Ten, A.M. — Had a good night. The rash disappeared; throat dressed as before; pulse 108; dejection; costive; to take a teaspoonful of castor oil; tapioca pudding and mutton broth for dinner. Continue mixture.

3rd, Ten, A.M.—Passed a good night; pulse 100; throat so much better that I discontinued the nitrate of silver and added four drachms of acid to the mixture; poultices discontinued, mutton broth as before. To leave her bed for another in the same room, and to lie outside, partly dressed, but on no account to set up.

4th, Ten, A.M.—Passed a good night; bowels relieved freely. To continue mixture; to take some chicken. Pulse 100.

The patient progressed so satisfactorily from this time, that I discontinued noting further. In five or six days desquamation came on, and she gradually recovered. I was careful to allow no exertion or amusement that could fatigue. Ordered a warm bath as soon as desquamation commenced, which at this stage of the disease I have always found most refreshing.

It will be seen that this was a case of Simple Fever, offering no particular symptoms; but one thing, however, must be particularly noticed, as on that I lay great stress: in the evening of the first day, there was slight delirium, and the tonsils were covered with *thick viscid phlegm*: it

will be observed I ordered the caustic solution, which quickly removed that secretion, and the patient was the next morning much better. Now had I allowed this phlegm to remain, free respiration would have been impeded, the delirium would have increased, and the fever would soon have put on the character of *S. anginosa*, and the patient would have been in great danger. I believe many patients may be saved by careful attention to this subject at the *critical moment*.

The next case is one of *Scarlatina Anginosa*, in a young lady aged seven, Miss Isabella N——.

April 13th.—In the morning I was requested to see her, and found the rash appearing over the face, neck, shoulders and arms.

To take three grains of calomel directly, and two hours afterwards, some castor oil; and as soon as the bowels have been relieved, to take the acid mixture, and apply limiment outside the throat.

14th, Nine, A.M.—Tonsils enlarged and ulcerated; dressed with the caustic solution, and to continue mixture. Stomach rejects almost everything. Diet—gruel, barley water and weak tea.

Evening.—Still Sickness and great fretfulness; throat ulcerated. Continue acid mixture, with increased quantity of distilled vinegar; liniment to be kept constantly applied outside, and the tonsils and fauces dressed with caustic solution.

15th, Ten, A.M.—Eruption out about the body, groins and thighs, and several patches over the body exhibiting a languid, dusky character; skin not warm; pulse low; restless; sleeping for ten minutes and waking suddenly; throat outside very sore; tonsils enlarged and ulcerated, to be sponged with caustic solution. To take arrow root with a dessert spoonful of brandy in it: to have face, hands, chest and legs sponged with tepid vinegar and water; one-third vinegar, two-thirds water; to continue acid mixture with the addition of compound spirits of æther, one drachm. To have linseed poultices applied to the throat; to take a cup of good mutton broth at one o'clock.

Four, P.M.—Pulse rallied; countenance better; skin warmer; throat outside very sore; some sickness, rejecting the mixture. Continue the same in every respect, with broth, dressing the tonsils with solution.

Half-past Nine, P.M.—Pulse 120; skin much

warmer; no dejection; to have castor oil enema directly, and to be repeated in two hours if needful, and to take twenty drops of tincture of henbane. Tonsils and fauces still ulcerated; dressed with solution; the liniment applied to the throat outside, and over it a linseed poultice. To take some more arrow root.

16th, Half-past Eight, A.M.—Had a good night, but no dejection; to take two grains of calomel and a mixture after it, composed of rhubarb and magnesia, with some tincture of henbane and tincture of jalap. Sponge throat with caustic solution; take beef tea and barley water.

Two, P.M.—Had two free dejections. Continue as before.

Half-past Nine, P.M.—Pulse very low, having taken no nourishment for five hours; to take some brandy in arrow root, and beef tea. Dress throat with solution.

17th, Half-past Eight, A.M.—Restless night, although she took thirty drops of tincture of henbane; tonsils deeply ulcerated, and outside the glands much swollen; dress inside with solution, and outside continue poultice. No dejection. Give the aperient mixture (as oil will not remain

on the stomach) at five o'clock if needful. Beef tea and barley water.

Half-past Nine, P.M.—Throat better; slough coming away; pulse 120; tongue very furred; no dejection. To take two grains of Calomel at bed time, and aperient mixture in the morning if necessary; to take barley water and henbane draught if restless.

18th, Half-past Eight, A.M.—Pulse 100; had a good night without henbane draught; bowels freely relieved; touched the tonsils with pure nitrate of silver; tongue cleaning; continue poultice of linseed round the throat; to take broth or beef tea; to add two drachms of acid to the mixture; dose every three hours.

Seven, P.M.—Progressing favorably; if bowels not relieved to take aperient mixture in the morning.

19th, Ten, A.M.—Passed a restless night from rheumatism of the hands, which were swollen and painful; throat better; bowels not relieved; to have an injection; to take beef tea afterwards; to add to the mixture, decoction of bark, one ounce.

Nine, P.M.—Hands red and swollen; bowels relieved; throat healing inside, and glands outside diminishing; continue mixture with bark.

20th, Half-past Nine, A.M.—Better; good night; hands red and swollen; bowels not relieved; to have an injection, and continue the mixture and nourishment.

21st, Ten, A.M.—Much better; throat quite free from sloughs; hands better of rheumatism; continue mixture.

22nd.—Better. Discontinue poultice, as the swelling of the glands is quite gone down. She gradually recovered, and I made no further notes of the case.

I have selected this case as offering some exceptions to most others of the second species of fever; the determined sickness and rejection of castor oil, thus rendering it necessary to give the aperient mixture, which it will be seen contains no saline substance. I have no doubt that this case would have run into the malignant form, had I not persevered in dressing the throat with caustic, and increasing the quantity of acid; especially when it is added, that there were at the same time five other children suffering from the fever, and lying all on one floor, in three rooms communicating with each other; for although I used every precaution in keeping the temperature cool

and equal, and freely distributed the chloride of lime, still the atmosphere was not such as to assist a patient towards recovery from severe *S. anginosa*, on the contrary, rather retarding it. It will also be observed that Rheumatism supervened in this case, which is not very unusual in Scarlet Fever.

The next case I shall select is one closely bordering on the Malignant form.

Miss Isabella F——, residing in C—— Square, September 27th. This young lady sickened about fourteen days subsequently to her youngest sister, who was attacked with *Scarlatina Anginosa*. In the evening the rash was appearing on her arms, chest, face and sides. Gave three grains of Calomel, and castor oil four hours afterwards, although her parents said she never could retain it on her stomach; however, this she did retain, and it operated very freely; applied the liniment to the throat externally, on flannel, and gave the following mixture :—

Take of Distilled Vinegar, four drachms.

Syrup of Red Poppies, four drachms.

Distilled Water, to four ounces.

Mix, and take a fourth part every four hours.

To take barley and toast and water. The tonsils and fauces very red ; but the patient having the smallest mouth and throat I ever saw, and resisting any attempt to see down it, prevented my observing it so fully as I wished.

Tuesday, the 18th.—The following day going on well ; efflorescence freely out over the entire surface of body and extremities ; throat externally very sore from the liniment ; ordered a linseed poultice from ear to ear round the throat ; applied caustic solution to the tonsils and fauces with a sponge.

Wednesday, 19th.—The following morning she appears going on favourably. In the evening I am requested to go directly as she is very restless : I find her pulse very quick and fluttering ; extremely restless ; slightly delirious ; efflorescence almost entirely disappeared ; throat, mouth and lips covered with brown offensive *sordes* — gave her a table-spoonful of brandy in a wine-glass of arrow root, directly, and when the pulse rallied, which it did in an hour ; gave her the sixth of a grain of Acetate of Morphine, which soon produced a quiet sleep. Considering her too ill to be left, even to the care of two excellent nurses,

I determined to stay in the house all night, that I might see her as soon as she awoke. At Half-past two o'clock, P.M., she awoke, and was decidedly better; pulse firmer but very quick, 140; skin very hot; delirious, not knowing any one; bowels had been relieved in the evening without any aperient; gave her another tea-spoonful of brandy, and another dose of morphine, which soon produced sleep, and at seven she awoke decidedly better, and I left, with instructions that she should have beef tea and arrow root alternately, every two hours, and the acid mixture. The rash appeared now again, of a florid character, and appeared as if standing out, or elevated from the skin; at bed time I repeated the morphine, having dressed the throat with caustic solution.

Thursday.—Passed a good night, but skin very hot and of a bright scarlet; slightly delirious; pulse weak; throat swelling externally; dressed the tonsils and fauces with caustic solution, and applied linseed poultice externally; ordered beef tea and sherry and water; in the evening repeated the morphine.

Friday.—Had a tolerably good night. Dressed

the throat with solution; glands much swollen externally, yet she swallows without very great difficulty; the redness and heat of skin diminishing; speaks thickly. Continue acid mixture, beef tea, arrow root, and wine and water; in the evening repeated morphine.

Saturday. — Passed a tolerably good night. Dressed her throat with solution of caustic, and as usual, removed a great quantity of viscid phlegm; gums and lips, which are covered with brown fur, easily bleeding upon being touched, but not however continuing longer than a minute or two; tongue moist, and she can swallow better; the redness nearly disappeared, but there are patches still about the body; pulse weak and quick. Continue nourishment.

Six, P.M.—Very restless; pulse very weak and fluttering; bowels not relieved, give an enema composed of a-pint and a-half of warm water with an ounce of castor oil, and one spoonful of common salt, first giving a tea-spoonful of brandy in a wine glass of water; apply a poultice composed of half linseed meal and half bread, smeared over with sweet oil, to the throat.

Eleven, P.M.—Restlessness increased; pulse

too quick to count, and very feeble; still unconscious; bowels not relieved, gave a fourth of a grain of morphine, which soon composed her, and she fell into a quiet sleep.

Sunday, One, P.M.—Sleeping quietly and pulse better; when she awakes to give her brandy and arrow root.

Nine, A.M.—Has had some good sleep since one o'clock; pulse firmer and 140; bowels not relieved; ordered a dessert-spoonful of castor oil; beef or chicken tea; continue mixture; dressed the throat with solution of caustic.

Five, P.M.—Castor oil through some mistake has not been given.

Nine, P.M.—Sleeping quietly, but no dejection. Ordered one-sixth of a grain of morphine if she became restless.

Monday, 7th, Nine, A.M.—Has taken the Morphine and had a good night; bowels freely relieved twice; external swelling of the throat decidedly smaller, and countenance less anxious. Continue acid mixture, and beef and chicken tea.

Seven, P.M.—Having been restless since one o'clock, ordered sixth of a grain of Morphine.

Nine, P.M.—Breathing very quickly from a

little cold ; but pulse steady and 108. Ordered a fire in her room.

Tuesday, Nine, A.M.—Passed a good night and is decidedly better, indeed I hope out of danger.

Nine, P.M.—Still going on very favorably.

Wednesday, Nine, A.M.—Continue medicine and nourishment ; to take a dessert-spoonful of castor oil ; the throat externally, on the right side, very much swollen, extending to the cheek ; poultice constantly.

Thursday.—The neck very much swollen and red, and I could distinctly feel fluctuation ; I therefore (to avoid destruction of skin, by allowing it to suppurate, which always leaves an ugly scar) determined to lance at the part most clearly indicating the presence of pus, taking special care to make my opening in the direction of the fibres of the *Platysma Myoides* ; an ounce of pus escaped very freely. After sponging softly with warm water, applied poultice. Continue acid mixture with addition of some decoction of bark.

Friday.—Free discharge of pus from the opening, and also from the ear. Left side of throat also very much swollen ; desquamation commencing.

Saturday.—Continues improving, but left side of throat very painful. Takes the Morphine every night.

Sunday.—Left side so much swollen, and fluctuation so distinct, that I lanced as on the other side, and a large quantity of pus escaped. Continue poultice, medicines and nourishment.

Monday, October 14th.—Passed a good night, but is very weak this morning; both sides of throat discharge freely, and both ears.

Tuesday.—Still continues to improve; free discharge of pus. Continue every thing as before.

Wednesday, Thursday and Friday.—Still going on favorably.

From this time she gradually progressed towards convalescence, and her head, which I should have before mentioned, was drawn down towards the chest—the chin almost touching the sternum—slowly recovered its position. The acid mixture with bark, was continued a fortnight longer; desquamation, assisted by warm baths, went on satisfactorily, and after spending some weeks at Brighton, she returned to town stout and well, and there is no scar on either side of the throat at all perceptible, except by very careful examination.

This case offers some points which may be of practical use to mention.

First.—She retained castor oil, although she never had before been able to do so; this should induce us always to try castor oil before having recourse to any other aperient.

Secondly.—The sudden disappearance of the efflorescence, and consequent restlessness and failure of pulse; the decided effect of the Morphine, after giving a little stimulus, in allaying the symptoms, which were of the most alarming character.

Thirdly.—The swelling and subsequent suppuration of the glands on both sides of the throat; this will more frequently occur, where from any cause the efflorescence is checked and disappears, and it must always be looked upon with apprehension, requiring the greatest care in allaying nervous irritation, and in upholding the patient by nutritious diet.

And, finally, lancing these glands. This is generally strongly objected to by the parents, and is also considered by many professional men as injudicious practice; but if care be had as to the mode of doing it, and recollecting the course of

the muscular fibres, I believe there can be no objection; and it is quite certain that if you do not lance, the destruction of the skin produced by suppuration, will always leave an ugly and disagreeable scar.

This case, on the whole, was one of great anxiety. The poison of the fever overpowering the circulation, there was consequently much sinking of the nervous system, and no other treatment that I have seen or tried, has ever assisted me in saving the patient; on the contrary, I have known many die from such symptoms.

Tuesday, October 14th.—Mrs.——, mother of the last named young lady, who had just recovered from a miscarriage, which was preceded and followed by Quotidian Ague, complained of sore throat and general lassitude, fifteen days after her second child was attacked. I instantly applied the stick caustic to the tonsils and fauces, even although ulceration had not commenced. Pulse feeble; skin hot; sickness soon came on, and continued almost incessantly. Gave a spoonful of brandy in water and distilled vinegar mixture, and applied linseed poultice to the throat.

Wednesday, 15th, Nine, A.M.—Passed a most restless night; incessant sickness; pain in the loins and left leg, with head ache; efflorescence of a bright scarlet, freely out over the face, arms, chest and body, but not over the legs; continue acid mixture; soup or beef tea.

Nine, P.M.—Rash freely out over the legs as well as body; the skin distressingly irritable; sickness rather better; pulse feeble; countenance anxious; pupils of eyes powerfully contracted. To take two spoonfuls of brandy in arrow root. Continue mixture and nourishment, and to take a quarter of a grain of morphine.

16th, Nine, P.M.—Passed a better night; rash out freely; sickness returned this morning; shivering and afterwards free perspirations. To continue brandy, acid mixture and nourishment, and to have a castor oil injection.

Nine, A.M.—Pulse quick and feeble; sickness not abated; voice almost inaudible; skin very red and irritable; bowels have been freely relieved from the injection. Ordered morphine to be repeated at bed time; sherry in arrow root, and to sponge the extremities with vinegar and tepid water; and to continue acid mixture.

17th, Nine, A.M. — Slept at short intervals through the night ; sickness not abated ; pulse 140 and feeble ; speech scarcely audible ; slightly delirious ; great anxiety of countenance. To take effervescing mixture with soda and lemon juice, and chicken broth in cold water ; skin very red and irritable ; to sponge with vinegar and water ; apply poultices constantly to the throat. All threatening of ulcerations on the tonsils and fauces appear to have been arrested by the first application of caustic, and she swallows well.

Four, P.M.—Pulse rather better ; has kept down the cold chicken broth, but not the effervescing mixture.

Nine, P.M.—Pulse 120 and firmer. To take port wine and water, and chicken broth, and a little plain ice. Discontinue effervescing mixture and resume the acid one. To take morphine draught.

29th, Nine, A.M.—Has had but little sleep ; pulse 120 and firmer ; the rash disappearing, but the skin round the mammæ very red from scratching ; has not been sick since last night at twelve o'clock. Repeat the morphine draught directly.

Two, P.M.—Has had some quiet sleep ; pulse

120; countenance more cheerful; to have (at her own earnest request) some bitter beer. Continue port wine, chicken broth and acid mixture; bowels not relieved.

Ten, P.M.—Enjoyed the beer and slept well after it; pulse 120; no sickness. Continue every thing as before, and Morphine at bed time.

19th, Nine, A.M.—Has not passed a good night, is very restless and low; pulse feeble; no dejection; gave a wine glass of port wine and water, and added four drachms of acid to the mixture, making an ounce and a-half of acid in six ounce mixture. A fourth part every three hours. To have injection of castor oil and warm water.

Three, P.M.—No dejection from enema; pulse rather better; has taken (at her own earnest request) some cold roast beef, cut up very fine and soaked in vinegar and mustard, and some iced champagne.

Eleven, P.M.—No dejection; pulse 120 and feeble; the redness of skin disappeared. Gave a table-spoonful of brandy in lemonade; has been once a little sick; gave a third of a grain of morphine in pill, and added one ounce of compound tincture of bark to the mixture.

20th, Nine, A.M.—passed a good night; pulse 120; no dejection. Brandy in soda water, and bread and butter for breakfast.

Three, P.M.—Bowels freely relieved.

Eleven, P.M.—Has taken some hock wine and good turtle soup. Continue mixture of acid and bark, and repeat the morphine pill.

21st, Nine, A.M.—Better; pulse 120. Continue the turtle soup, brandy and wine. No dejection; repeat enema.

Three, P.M.—Progressively improving.

Ten, P.M.—Bowels relieved; feels very low and sinking. Continue nourishment and medicines as before, and morphine pill.

From this period she gradually progressed favorably; persevering with both mixture and nourishment.

November 10th.—Has continued the acetic acid and bark up to this time. Has had free desquamation, and taken three warm baths.

This was one of those cases which, from the first commencement of the attack, exhibited that excessive depression of all vital energy which is so marked in the worst forms of this disease. I

consider the free application of caustic to the tonsils and fauces, in the first stage, was most beneficial in preventing all ulceration. The continued sickness was most alarming, as the effort of retching seemed to increase the depression, which was more excessive for several days than I ever met with. I believe the perseverance of the acetic acid enabled her to digest the various foods which she took; for it will be found, that no medicine has a more decided influence in promoting digestion than this acid; hence, with its other properties, being peculiarly applicable to this disease. It will be noticed, I allowed her to have any thing she fancied; for it will be frequently found, and has often been observed by medical men, that harm seldom results from allowing great latitude as to diet, to patients when under severe and dangerous disease.

CHAPTER IV.

Cases :—Mrs. W.'s Child, Malignant Fever—Miss G.'s Case, Malignant Fever—Practical Remarks—Mrs. F.'s Child—Practical Remarks—Temperature—Dropsy — Anasarca — Ascites — these not supervening on the Treatment with Acetic Acid.

THE following case of Malignant Fever illustrates well the mode of treatment pursued, and its results :—

I was sent for to see Mrs. W—'s child, aged four years, in consultation with her usual medical attendant. I found that the child had been ill three days with the Fever—that the eruption had not been general, but had come out in patches, and then disappeared suddenly—that the throat was seriously affected from the first attack, and deglutition most difficult. The child had been freely purged, and treated with saline medicines, but hourly becoming worse, and children in the same street dying almost daily

from this fever, the mother became alarmed, and requested my attendance. On examining the child, I found its mouth half open, the tongue swollen, the breathing stertorous ; a quick feeble pulse ; countenance anxious—full of distress ; the tonsils externally enlarged to the size of walnuts, and internally almost in contact—covered with a thick, tenacious and offensive mucus, which also covered the fauces and teeth, and lining membrane of the lips. I directed the application of a strong solution of nitrate of silver to the throat internally by means of a piece of sponge, and immediately afterwards placed three grains of calomel on the tongue ; two hours subsequently a spoonful of castor oil was given, and then two drachms of the dilute Acetic Acid, with some syrup. Linseed poultices, to be changed every three hours, were applied to the throat externally ; and directions were given to keep the extremities warm by means of a hot bottle.

In the evening of the same day we met again, and there was evidently an improvement : the fauces were again touched with the caustic solution ; the Acid and every thing else was continued as before ; and as soon as the child could be in-

duced to take it, some good beef tea was prescribed. This plan of treatment was rigidly carried out, and in four days it was agreed that the patient was out of danger; this was soon proved by a favorable termination of the disease; the child passed satisfactorily through the desquamating stage, and had no dropsical symptoms afterwards.

The next case of Malignant Fever, occurred in a house where Scarlatina had been raging for a fortnight, and where it carried off the master of the family; but as he had not been under my care, I can give no decided opinion of the nature of his fever; from what I learnt, however, it was evidently of a Malignant character.

January 4th.—I was sent for about Five, P.M., to see Mary G., aged twelve years, living in Adam Street West. I found her with much fever, the efflorescence of a bright scarlet freely out over the entire surface of the body and extremities; pulse 140 and fluttering; tongue streaked with a white fur; throat, tonsils and fauces much inflamed and ulcerated; countenance most anxious, and the patient altogether much frightened, especially as her uncle was then lying dead in the house. I ordered her three grains of calomel directly, and one

table-spoonful of castor oil two hours afterwards, to be followed by the acid mixture :—

Take of Diluted Acetic Acid, one ounce.

Syrup of Red Poppies, half an ounce.

Distilled Water, four ounces. mix.

A fourth part every three hours.

And the usual liniment to be applied to the outside of the throat on flannel.

Half-past Eight, P.M.—I found that only half the powder had been given, and no oil; in fact, every person in the house was thoroughly terrified, which increased the alarm of the patient, and consequently her pulse had become more weak and fluttering; tonsils and fauces covered with thick viscid phlegm. Applied the nitrate of silver in stick, freely to the tonsils, &c. Gave the remaining portion of the powder and the castor oil; ordered all bed-furniture, carpets, &c., out of the room, and used the chloride of lime freely about the floor. To give her a cup of arrow root with an ounce of port wine in it at ten o'clock, and to repeat it in the night if she became restless and faint.

Eleven o'clock.—Sent my assistant to sponge out the throat with a solution of caustic, ten grains to the ounce.

5th, Nine, A.M.—Passed a good night; countenance more cheerful; pulse 140; efflorescence freely out; bowels well relieved; has taken three doses of the acid during the night; throat, which is looking better than last night, sponged with solution of caustic. To have mutton broth and barley water.

Nine, P.M.—Restless; pulse 120 and fluttering; tongue red as a strawberry. To take more port wine and arrow root; to apply a linseed poultice round the throat instead of liniment; to continue the mixture; throat sponged with caustic solution, and to take the fourth of a grain of acetate of morphine.

6th, Nine, A.M.—Passed a good night; pulse 120 and firmer; brightness of efflorescence decreasing; bowels not relieved. To take half an ounce of castor oil immediately; to take mutton broth twice. Throat sponged, and to continue every thing as before.

Ten, P.M.—Bowels have been freely relieved. Pulse steadier, and patient inclined to sleep. To take mutton broth twice. To have some port wine in sago, and continue mixture and poultice as before.

7th, Ten, A.M.—Passed a good night; less appearance of the rash; pulse 120 and steady; tongue red. To take beef tea, and port wine and water; continue every thing else as before.

8th, 9th and 10th. — Each day continued as before. Castor oil if needful, and mutton chop.

11th.—Found her sitting up, which being contrary to my express directions, I ordered her to bed instantly, as desquamation on the fingers was just commencing.

This stage requires great quiet and confinement to bed; the patient is, during its progress, more susceptible of cold and chill, and equal warmth much assists its steady progression.

15th. — Desquamation going on very well. Ordered a warm bath, and still to keep her bed; and continue acid mixture and generous diet.

29th.—Took the last warm bath yesterday. The skin has thoroughly desquamated. I discontinued the acid this day, and desired that she should keep her room, and avoid any cold or chill; inattention to this precaution, often induces dropsy after the patient is convalescent.

From this case may be learnt the advantage

of early attention to the throat, in removing the viscid secretion and allowing free respiration, and the importance of giving wine, even in the febrile stage; and I believe when combined with the acid, which so powerfully assists digestion, that no harm will ever accrue from it. This case would certainly have put on the worst form of the disease, if these precautions had not been promptly taken.

Wednesday, January 21st, 1843.—Sent for to see Mrs. F.'s little girl, living in ——— Square, aged two years and three months. Ascertained that she had been poorly since Thursday last, on which day there was some rash over the face and chest, which was considered to be Scarlatina. On Friday, the rash having disappeared, she was allowed to go down stairs. On Saturday she was feverish and generally heavy and ill, and more rash appeared. The medical attendant now positively pronounced it Scarlatina; gave some scammony and calomel which relieved the bowels; saline medicine and antiphlogistic diet ordered. On Sunday she was not so well, and had several head symptoms. Throat very sore and ulcerated; was ordered muriatic acid mixture. On Monday she was better,

having slept well, but complained of the nose, from which a sanious discharge was flowing. Tuesday, bowels not freely relieved. Was ordered some calomel and jalap. I saw her about half-past five this day; found the pulse quick; skin hot; nose red, and upper lip excoriated by the sanious discharge; tonsils felt enlarged outside, particularly the left side; on examining the tongue, I found its edges red, with a white chalky centre; the tonsils very much enlarged—nearly closing the throat and covered with a thick viscid phlegm; the nitrate of silver in stick was applied, and the child threw up an ounce of this thick secretion from the throat. The body and extremities looking mottled from the suppressed rash, which could be distinctly seen in the skin. Ordered linseed poultice outside the throat; and inside the tonsils and fauces to be sponged night and morning with caustic solution (ten grains to the ounce); to have an injection of castor oil in four hours, if needful, and to take acetic acid mixture; one drachm to a dose; to have some mutton broth. Bed-furniture removed and carpets taken up, and floor sprinkled with chloride of lime solution.

22nd, Half-past Nine, A.M.—Passed a good

night, and had free dejection after having the enema of castor oil; the sanious discharge from the nose had quite stopped; the tonsils very much swollen and covered with a thick viscid phlegm; sponged with caustic solution, and the child instantly vomited a large quantity of this secretion. Continue mutton broth and acetic acid mixture; to apply flannel soaked in warm gin externally to the throat.

23rd, 24th, 25th, 26th and 27th.—Every thing has been continued as before. The tonsils are rather decreased, but the caustic solution always removes a large quantity of viscid secretion; the acid to be increased in strength, and beef tea and meat gravy allowed freely.

February 6th.—Has had two warm baths; desquamation progressing languidly: Ordered the caustic to be discontinued, but not the acid mixture.

This little patient gradually recovered, but when I first saw her I did not like her symptoms: the very bad throat; the suppressed efflorescence; the sanious discharge from the nose were all unfavourable, and strongly reminded me of my own child, who fell a victim to this disease.

The languid desquamation noticed in this case,

is always observable where the rash has been checked in the first stage, and it will frequently be found that dropsical effusions supervene. In such cases, I believe the continued use of acetic acid, generous diet and warm baths, are the best remedies; I may also repeat, I never allow my patient to be removed from bed till desquamation is over, as it is of the utmost importance that no check to the skin should be created by any change in its temperature, which cannot be avoided if once removed from bed. I am also studiously careful that the room be kept of equal temperature, and yet not too warm—about fifty-eight or sixty degrees of Fahrenheit. This leads me to mention more particularly, the frequent sequence to this disease, dropsy, generally assuming the form of anasarca or effusion of serum in the cellular membrane, between the flesh and skin; but sometimes the direct form of ascites or effusion of water into the peritoneum or lining membrane of the abdomen. This dropsical affection succeeds all forms of the disease; it seldom occurs earlier than the sixteenth or seventeenth day after the disappearance of the eruption; or later than the twenty-fifth or twenty-sixth day. It will be observed

that this peculiarity strengthens the opinion that there is an increase of serum in the blood in this disease; and as it is a fact, that I have never had a case of dropsy supervening on Scarlet Fever, since I adopted the treatment which I have attempted to sketch in the foregoing pages, I believe it arises entirely from the use of the acetic acid, which so acts on the blood as to prevent that separation of the serum from the fibrin, which takes place under other modes of treatment; and it will be seen by some extracts I shall presently make from a letter which my friend Mr. Hunter, of Margate, has done me the favor to write, that his experience, which is much longer than mine, fully confirms that opinion.

CHAPTER V.

Blisters injurious.—Objection to use of acid.—Heartburn, the *modus operandi* of Acetic Acid.—Infection, how long in shewing itself.—Different Stages of the Fever—Stage where greatest fatality — Third Stage — Mr. Hunter's remarks.—Mr. George Brown's testimony.

IT will be observed in reading the cases which I have noted, that I never apply blisters, having frequently seen the most alarming sloughs from their use; indeed, I feel certain, that the death of many a little patient has been accelerated by their application. I have known them tried by being allowed to remain on only two or three hours, and a poultice applied afterwards, yet a deep black slough has supervened, and the destruction of the parts has been very extensive. I cannot, therefore, but consider blisters injurious, rather than beneficial in this fever. I have heard many objections made to the use of acids in the treatment of this disease, because, it is asserted, there is a deficiency of alkalies in the blood when under the poison of scarlatina; but

I answer that, although most writers on this subject advise the administration of alkalies, yet the muriatic, sulphuric and nitric acids have frequently been advised by others; and again, it is well known that heartburn is readily stopped by taking a small quantity of acetic acid, or raspberry vinegar; in fact, what we consider an acid state of the stomach, is corrected by taking into it more acid. Without, therefore, pretending further to explain the manner in which the acetic acid acts on the blood, still I am convinced it does act beneficially as an antiseptic and styptic, and as these observations are put forward purely for practical purposes, I trust my professional brethren will give the plan of treatment recommended a fair trial, without first waiting for a solution of the *modus operandi*.

I, as well as every professional man, have been frequently asked, How long after infection does the disease show itself, and how long does the infection continue communicable to another? To the first question,— I have known a case of Scarlatina develope itself as early as the third day after infection in a house near which there was no fever, but the child had visited a friend's house

where Scarlet Fever was raging at the time. Again on the sixth and seventh day I have also noted its development after infection; and as late as one month after infection, I have seen a child of languid and enervated constitution exhibit symptoms of the Fever, which developed itself slowly and unsatisfactorily, and yet passed through all the stages: but in fact there is no decided day or period for saying positively how early or how late the infection may shew itself after infection, but I believe it will *generally* be found that the disease first commences on the fourteenth day after infection. Before replying to the second, I must premise that I divide, for the sake of illustration, the fever into four stages.—First, the low febrile premonitory symptoms preceding the eruption, occupying from three to seven days. Second, the eruptive fever, occupying from four to five days. Third, in the severer forms of the fever, the cynanche, or sore throat, continuing from four to six days:—and fourth, after disappearance of eruption, the stage of desquamation, occupying from four to seven days. Of course this division is only taken from an average number of cases, and by no means holds

good always, but will generally be found correct. Although I cannot speak so positively to this question of communication, I believe it will in most cases be seen infection is more readily imparted during the second, or eruptive stage, and also during the fourth, or desquamating stage. It may be asked whether, taking the longest duration of each of the stages, *viz.* twenty-five days in all, I mean to infer that at the end of that number of days, from the first onset of the disease, that the infection is at an end? I reply, certainly not; on the contrary, I have often known, and I have heard my friend, Dr. Locock assert the same thing,—the desquamation or peeling last from ten to twenty days; and during any portion of that time, I believe the patient capable of communicating the Fever to another.

It may be as well to allude here to another interesting enquiry, *viz.*, the stage of the disease in which there is the greatest fatality. Assuming for the sake of illustration the same division of four stages, it will be found that, death carries off the patient either in the second, or eruptive stage, from sudden prostration; or in the third stage from the great mischief in the tonsils and fauces,

and the prevention of free respiration by the viscid secretion, which impedes the passage of air; or from anasarca, or diseased kidneys, the frequent *sequelæ* of this disease; but, it will generally be remarked, that a greater number of deaths occur in the third stage than in any other; hence the great importance of early attention to the tonsils and fauces in preventing ulceration, or, where that has commenced, in arresting its progress.

Before publishing my observations on this disease, I wrote to my friend Mr. Hunter, of Margate, from whom I first heard of the acetic acid treatment, and he did me the favor of writing a reply, with permission to make any extracts I pleased from his letter. He says, "I have not preserved any notes of my cases of Scarlet Fever, because my treatment with acetic acid, etc., has been so uniformly successful, that the description of one case would generally be the same as ninety-nine out of every hundred. I had happily been more than fifteen years in active practice, before I saw a fatal case of Scarlet Fever; and now, after nearly thirty years of extensive professional employment, the fatal ter-

minations have been so few, that I could not venture to state the number positively, without great consideration, or reference to my books, for fear that I should overrate them, but I think *four* must be the entire amount.

“I seldom find it necessary to vary my mode of treatment; and I recollect one case only, namely, that of a strong, robust and previously healthy tradesman, where Scarlet Fever was complicated with inflammation of the liver, in which I have been forced to have recourse to venesection. As regards blistering, and stimulating the throat and neck when the glands enlarge, or when they threaten to become enlarged, I now very seldom employ such means, having satisfied myself that much comfort and advantage result from the application of warm flannels sprinkled with spirits of wine or Holland’s gin.” Again he says, “I must confess the *modus operandi*, as well as the cause of the marked superiority of the acid over every other treatment with which I am acquainted, is by no means clear, at least to my mind. As acid is antiseptic, it may perhaps, control the depressing influence which the miasma of Scarlet Fever exerts over the

nervous system; as we find in sea-scurvy that acid coagulates, it may also therefore give tone to the blood in Scarlatina: and I think it acts as an astringent upon the lymphatic system and serous membranes, because I have never seen dropsy supervene to any of my cases of Scarlatina treated with acid. During the summer of last year, I attended a mother and four children, one of whom was at the breast, who were simultaneously seized with Scarlet Fever of the most malignant character; they all passed satisfactorily through the first fortnight or three weeks, when two of the children were attacked with phagednic ulceration of the tonsils, of the mouth, of the alæ of the nose and external ears, which proved fatal to one of them notwithstanding the utmost care and attention, combined with the liberal use of sesqui-carbonate of ammonia, wine, and *mistura spiritus vini gallici* of pharmacopœia: of course this is one of my four cases already spoken of;”—and in conclusion he says, “I need hardly assure you that you may command any further information in my possession, and that I shall readily do all in my power to give publicity to your little volume, which, if your success with the

acid treatment at all equals my own, will prove a boon, both to the profession and the public at large."

I have much satisfaction in having also the testimony of my brother Mr. George Brown, practising at Kensall Green, in a population comprising a large number of the poorest class—in favor of the acid treatment; he says, that during his practice there of nearly five years, he has had very many cases, all of which have been treated with acetic acid, which he has in some cases given, as strong as the patient could possibly take it; and that the result of such treatment has been most marked, he having had no deaths from this disease where he was called in at the early stage of the eruption, and where he could secure attention to his directions.

CHAPTER VI.

Careful Watching—Critical Moment—Prostration—Stimulants.

Final Observations.—Fever of Debility—Dr. William's Observations.—Dose of Calomel—Castor Oil—Dr. Armstrong—Whiteness of Tongue—Peculiarity—Equal Temperature—Confinement to Bed—Dr. Currie's Remarks.

I BELIEVE very much depends on careful watching in this disease, for it will always be found that there is in one or other of the stages of the fever, a *critical moment*: for instance, in the eruptive stage, even in the simple form, delirium will come on, and the throat will become more clogged with viscid secretion in a few hours; and if attention be not promptly given, and this phlegm, which impedes free respiration be not removed, the delirium and laborious breathing will increase, and the disease will soon run into the second, or anginosa form, of course then offering greater difficulties to cure; whereas, on the contrary, if prompt attention be paid, the throat cleansed, and some gentle nourishment administered, all unpleasant symptoms will pass off, and the following day the patient will be found progressing as if nothing untoward had

happened. Again, in the second or anginosa form it will not unusually happen that the tonsils and fauces will suddenly become worse; or great sickness will come on, or sudden prostration; now, unless the throat is instantly attended to, delirium, laborious breathing, difficult deglutition and restlessness will make serious ravages upon the patient, and all remedies will quickly become unavailing; or, where sudden prostration should arise, then we must promptly and unsparingly administer stimulants and cordials, till the pulse exhibits more steadiness and power. Many patients are lost because the friends or nurses do not pay sufficient attention to these rapid alterations in the state of the disease. It is not at all an unusual occurrence for the medical attendant to express a favourable opinion in the morning, and at noon to find his patient sinking rapidly.

Having proceeded thus far, it may be as well to sum up our observations on what has been written. I shall then first repeat, that I consider this disease to be strictly a disease of debility, and not inflammatory, as has so often been affirmed by others: that consequently every treatment which tends to lower the nervous powers

of the patient is wrong: as for instance, active purging, bleeding, alkalies and antiphlogistic diet; on the contrary, that the treatment should, *ab initio*, be upholding; that the febrile stage should not be cut down by active treatment; but that even during this stage, when the tonsils and fauces are seriously implicated, steady nourishment, and even stimulants should be administered; and indeed, in every other stage this should never be lost sight of.

To strengthen my opinion as to the importance of considering this fever one of debility and not inflammatory, and consequently not requiring bleeding, I may make an extract from a very excellent paper "On the poison of Scarlatina," by Dr. R. Williams, in his "*Elements of Medicine*." After alluding to the practices of bleeding and of abstaining from it, he says, "If we compare them, the result will stand thus:—

Of 121 treated at the Foundling Hospital in	
1786 by bleeding	19 died.
„ 60 treated in the London Fever Hospital	
in 1829	10 „
<hr/> 181	<hr/> 29

or nearly *one in six*.

While of 200	treated by mineral acids and wine	2	died.
„ 160	„ „ purgatives and emetics.	16	„
„ 50	„ „ ditto	3	„
„ 45	„ „ ditto	1	„
„ 100	„ by mineral acids and wine.	3	„
<hr/>		<hr/>	
555		25	

or nearly *one* in *twenty-two*.

It seems therefore proved that one in six died after bleeding, while one in twenty-two died after a milder, if not a directly opposite treatment; and the conclusion which inevitably follows is, that the chances of recovery are diminished by the practice of bleeding in the ratio of nearly four to one, as compared with the chances supposing the patient not to have been bled. If we set out with this view, all the other parts of the treatment will appear simple and judicious. First, then, we administer a dose of calomel, followed by castor oil, to clear out the bowels as quickly as possible, and with as little irritation as may be; we give the calomel both as a sedative to the mucous membranes and as a stimulant to the liver; and the castor oil, because from its blandness it passes over the highly sensitive membranes of the bowels, more easily than any other known aperient, removing any

bile which the calomel may have thrown into the intestinal canal. This being done, we have a plain course before us, all the nourishment we give has a better chance of being really digested and assimilated than would otherwise be the case; and if we guard against any accumulation in the bowels at the very outset, we shall generally avoid the delirium, giddiness of the head, and congestion of the liver, which so frequently prove especial obstacles in the treatment of this troublesome disease. When once the bowels have been freely evacuated, we do not recommend any further purging, resting satisfied with simple laxative doses of castor oil, or some very mild aperient. I am aware that this doctrine is contrary to that of many writers, amongst them the learned Dr. Armstrong; still it is part of the system which I have endeavoured to lay down, and must not be departed from if it be the intention of the medical practitioner to carry out in all its parts, the plan of treatment here imperfectly developed; for if it be a disease of debility, whatever tends to prostrate the powers of the body must inevitably be wrong.

Before proceeding further with the treatment,

we may be allowed to draw attention to some striking features in this disease, which have not been so pointedly dwelt upon by others, as to lead to particular notice. All have mentioned that the tongue has a white centre and red edges; but the whiteness is quite peculiar to Scarlatina; it is of a *chalky whiteness*, as if the elevated papillæ of the tongue had been rubbed with chalk down the middle: and again, the redness of the tongue, which takes the place of the chalky white, as soon as efflorescence is freely out, is exactly like a *red strawberry*, and in no fever will be found so strikingly characteristic. I have considered it advisable to mention this peculiar whiteness of the tongue, as it has been considered by most writers as indicating the necessity for free purging. The next practical point to mention is the great importance of maintaining an equal and cool temperature throughout all the stages of the fever; having, on the first appearance of the disease, cleared the room of all unnecessary furniture, and having sprinkled the floor with chloride of lime and water, and placed saucers in different parts filled with the same fluid, endeavour to keep the room about sixty degrees of Fahrenheit; if by

any chance the room becomes colder, we shall find the patient shivering; extremities cold and clammy, and the pulse will sink and flutter; on the contrary, if the room become warmer, the pulse will be accelerated, the breathing quicker, the throat more uncomfortable, and the patient will soon look anxious and distressed, unless, indeed, a free perspiration should relieve the oppression. With a view to maintain this equality of temperature as near as possible, we strongly urge the importance of confining the patient to one room until the desquamating stage is well over; and during this stage, as well as through all the others, we never allow the patient to be removed from bed; as the slightest chill during the desquamating stage is almost certain to be followed by some dropsical effusion; and as far as our experience goes, we have never had a case of dropsy occurring after Scarlet Fever—where these precautions have been taken, and where the acid has been continued through all the stages—even after desquamation is fairly over and a week or ten days have further elapsed. This continuance of the acid should be rigidly enforced, as it will be found of vital importance to the perfect recovery of the patient.

At the same time that we continue the acid, we must as carefully avoid any drastic purgatives; an active dose of medicine will prostrate the patient, and much care will be required to recover the lost ground. As soon as the patient is perfectly convalescent, and has taken several warm baths, a change of air will be found most beneficial, care being taken that a mild temperature be selected, and not a bleak cold one.

I cannot omit one more important point of treatment in the management of this disease, as I have not sufficiently dwelt upon it (being anxious to curtail my observations as much as possible), although it will be seen in Mrs. F.'s case I attended to it, viz., sponging the skin with tepid vinegar and water during the eruptive stage. The comfort this affords is most striking; it allays the irritation of the skin, which is often most distressing; it produces a comfortable feeling of general warmth over the surface, and will often produce sleep where no anodyne will have the slightest effect. In doing this, I advise that the patient should be *carefully* sponged; for instance, let the nurse sponge the neck and shoulders as quickly as possible, then the arms, covering these

up before commencing the body and lower extremities—thus avoiding any chance of a chill.

We cannot better close these hurried remarks than by quoting the opinion of the late learned Dr. Currie, Physician to Guy's Hospital, as his remarks point out the importance of investigating this disease most fully and carefully. He says, with his accustomed candour, "that all remedies had been equally unsuccessful in his hands;" but "that he always gave cinchona (or bark) and wine." If such a man declared his want of success in the treatment of this disease, surely I may be pardoned for offering my practical experience to the world, in the hope of meliorating the sufferings of my afflicted fellow-creatures, and of strengthening the hands of my professional brethren, to combat or lessen the fatal effects of this most malignant disease.

