

On scarlatina : in a letter addressed to his son, in which is contained cases of angina sine efflorescentia, scarlatina anginosa, benigna, maligna vel angina gangrenosa, and their sequelae : also, observations on various therapeutic agents that have been employed in the treatment of scarlatina / by William Ingalls.

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With the respects of
Wm Ingalls Jr



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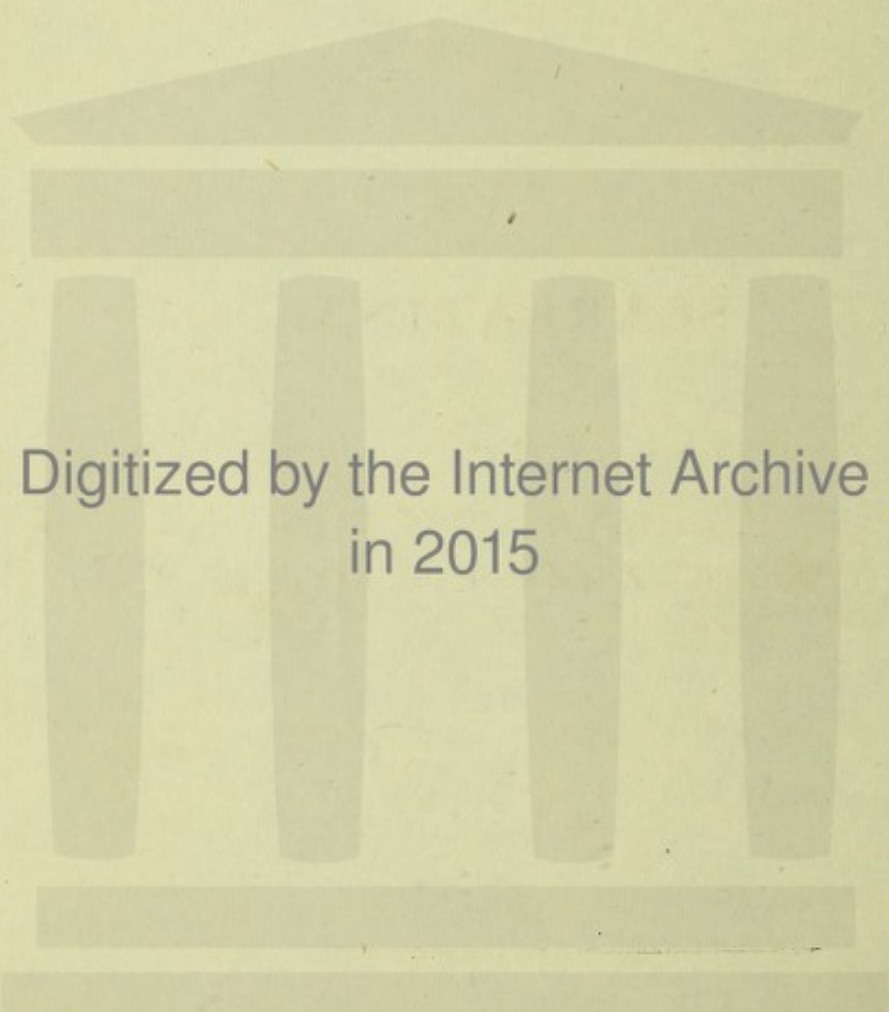
SCARLATINA,

IN A

LETTER ADDRESSED TO HIS SON;

BY

WILLIAM INGALLS, M. D.,
M. M. S. Soc., etc.



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ON

SCARLATINA,

IN A

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IN

WHICH IS CONTAINED CASES

OF

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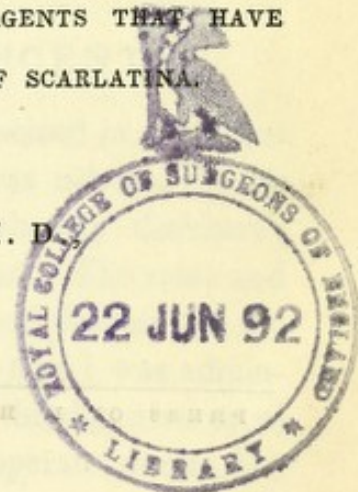
ALSO,

OBSERVATIONS ON VARIOUS THERAPEUTIC AGENTS THAT HAVE BEEN EMPLOYED IN THE TREATMENT OF SCARLATINA.

BY

WILLIAM INGALLS, M. D.

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BOSTON:

OTIS, BROADERS, & COMPANY.

1837.

SCARLATINA.

IN A

LETTER ADDRESSED TO HIS SON.

IN

WHICH IS CONTAINED UNDER

OF

AND A FIVE PERCENTAGE; SCARLATINA AND

Entered according to Act of Congress, in the year 1837,

BY WILLIAM INGALLS,

in the Clerk's Office of the District Court of Massachusetts.

ALSO

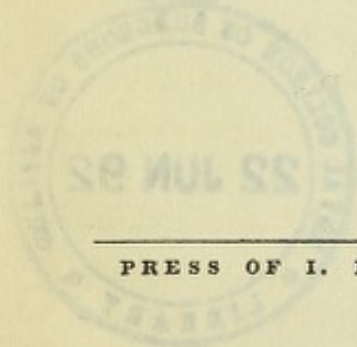
OPERATIONS OF VARIOUS THERAPEUTIC AGENTS THAT HAVE

BEEN EMPLOYED IN THE TREATMENT OF SCARLATINA

BY

WILLIAM INGALLS, M. D.

M. D. 1837.



PRESS OF I. R. BUTTS.....SCHOOL STREET.

BOSTON:

OTIS, BROADBENT & COMPANY.

1837.

LETTER.

TO WILLIAM INGALLS, JR., M. D.

Princeton, Dec. 19th, 1836.

MY DEAR DOCTOR,

It may not be unacceptable to you to receive a narrative of three cases of Scarlatina, which have recently occurred in our family. Alice, John and a child of one of our domestics, were attacked on three successive Thursdays.

Your affectionate father,

WILLIAM INGALLS.

ANGINA SINE EFFLORESCENTIA.

Your sister Alice, aged eight years, was seized in the morning, October 27th, 1836. The disease was ushered in by cephalalgia; anorexia; soreness of the throat; diarrhœa; nausea; great prostration of strength; fever. The relax and nausea continuing through the greater part of the day, in the evening an emetic [R. vini ipecacuanhæ, ℥ ss.] was administered, which had the effect of evacuating the digestive canal thoroughly; the medicine continuing to operate during the night.

October 28th. Cephalalgia, nausea and diarrhœa had ceased; deglutition painful; [on inspection an erythematic

blush was conspicuous on the right and posterior part of the roof of the mouth, extending over the region of the tonsil of the same side] debility; fever; anorexia; thirst; cough; itching; subsultus tendinum. For the inflammation of the fauces, were prescribed five drops of spiritus ammoniæ with as much tepid water as would render the mixture slightly pungent; repeated in the course of the day; a teaspoonful at a time, of a solution of supercarbonas potassæ to be given and to be swallowed slowly, to serve as a lotion to the inflamed or ulcerated throat. Fully convinced gargling tends to produce such irritation and agitation in the organs concerned in deglutition as greatly to increase inflammatory affections of the fauces, I have for a long time discontinued its use.

In severe cases, the inhalation of steam is exceedingly beneficial. For this purpose, let a bowl filled with the infusion of the anthemis nobilis and the acidum acetosum, in equal parts, made hot; when, by means of a funnel made of paper, inverted and applied over the surface, and adjusted to the brim of the vessel, the vapor arising from the compound, of such a temperature as may be thought advisable, can be directed very effectually to the part inflamed. It requires very little dexterity and care to render the process for general use equal, if not preferable, to Mudge's Inhaler.

With regard to diet, the patient had so great aversion to gruels, and indeed to almost every kind of food, she was indulged in her desire for water, which was given her tepid, sometimes with, but generally without being sugared; tea, allowed night and morning with sugar and a small quantity of cream, of which she usually, from choice, drank sparingly; the tea and tepid water constituted the only articles of nourishment, till she became convalescent.

Oct. 29th. Pain in deglutition relieved; debility; cough; anorexia; thirst; itching troublesome; heat of the surface great; subsultus tendinum; startings; jactitation; sleeplessness; no

erubescence ; a papular eruption beneath the cuticle distinctly felt ; the papulæ seemed more solid and resisting, and the epidermis more dense and rigid than usual ; in scratching, white furrows, as if made on the surface overspread with mealy desquamation, became perceptible ; this appearance, the papulæ and the supposed thickened state of the epidermis, were the only indications of the cutaneous membrane being in an altered condition. To these phenomena my attention was attracted by the patient herself.

With the view of eliciting erubescence, almost always a concomitant of scarlatina, and moderating the violence of the symptoms, her hands were immersed twice in warm water, and a gentle emetic given with the same intention : these remedies, however, were unavailing.

To appease the cough, a few drops of the camphorated tincture of opium were given, which, perhaps, owing to the smallness of the doses, were attended with little or no benefit. Opium and its preparations possess undoubtedly the faculty of communicating preternatural activity and force to the vascular system ; exciting and increasing animal heat ; and irritating and inflaming the skin. Hence, in exanthemata, the utility of opiates is, at least, questionable. From your sister's repugnance to mucilaginous drinks and expectorants, they were reluctantly omitted. The recumbent posture, the mastication and the swallowing of refined sugar, were the only curative means employed to mitigate the cough.

Oct. 30th. All the symptoms enumerated as existing on the 29th were exasperated ; the subsultus tendinum, startings, jactitations, itching and superficial heat were carried to a formidable height, and excited the most alarming apprehensions of the issue ; the itching was so intolerable as to require incessant "rubbing with the hand" to obtain a momentary relief from this troublesome symptom ; the superficial heat was also insufferable ; every attempt to keep the patient cov-

ered with bed-clothes was repulsed; and on account of extreme suffering from heat, we were induced to comply with her earnest solicitation of being clad as thinly as possible. To obviate any injurious effects from exposure to the impression of cold, the temperature of the room was preserved at a high elevation. There was still no cutaneous erubescence, but the color of the mucous membrane of the lips and mouth was a very deep red. Magnesia calcinata and vinum tartratis antimonii in small doses; these articles, together with the internal use, as mentioned, of tepid water, exposure to air comparatively cool, frictions to various parts of the surface to allay in some measure the irritation from excessive itching, were the only remedies employed. The disease had now arrived at its acme.

Oct. 31st. After the most intense distress for twenty-four hours, notwithstanding the cough grew worse, a profuse ptyalism supervened, and extreme prostration of strength continued, an abatement of the lesion of innervation, though scarcely perceptible, afforded some slight ground of encouragement the crisis might prove favorable. [The physic procured two offensive discharges.]

Nov. 1st. Last night the itching had remitted so much as, at times, to allow her to take some imperfect repose; cough harassing; ptyalism profuse; prostration of strength great; ichorous defluxion from the head excoriating the portion of the pituitary membrane of the anterior nostrils and upper lip. For the excoriation cold cream was applied; for the ptyalism divided doses of magnesia calcinata. After much persuasion a few table spoonfuls of cracker gruel were taken.

Nov. 2d. With the exception of cough, ptyalism and debility, the prospect of returning health was flattering; the patient began to take nourishment more freely.

Nov. 3d. From this period convalescence was slowly but regularly progressive; the symptoms daily becoming milder, till health was ultimately re-established.

Desquamation especially in the hands and feet took place, and the loss of a finger nail consecutive to a cutaneous whitlow which surrounded it; the epithelium of the mucous membrane of the lips was detached in shreds and not in scales.

The ptyalism began to decline in about six days; to *me*, in this case the cause of the complaint is unknown. Cases of idiopathic ptyalism have occasionally come under my care from the commencement of my practice; some having all the characters of a mercurial salivation. This circumstance has led me to conjecture it may be the result of mercury administered at a former period, and having lain dormant, until some change in the system have had the effect of bringing into action its properties of ulcerating the gums and mucous membrane of the cheeks and tongue, and consequently increasing the secretion of saliva. On this subject, however, I have formed no definite opinion.

In this case of your sister and also in that of your brother, an account of which follows it, I would remark, the tyalism was not attended with the swelling and ulceration of the tongue and gums, nor the offensive foetor peculiar to mercurial salivation.

The cough and excoriations, which lasted three weeks, were the last affections which disappeared. For the cough, which was very severe, laxatives were the most efficacious remedy; other medicines serving only as palliatives. The excoriations, as mentioned above, were treated with cold cream, the object of which was to sheath the parts from the acrimony of the defluxion from the nasal fossæ. Before the cough ceased, the ichorous humor alluded to above was converted into a profuse excretion of a mild mucous.

There appears to be a solecism in saying scarlatina can exist without efflorescence; but that your sister has had the exanthem, known by this appellation, and that it will be a preservation against a future attack, there can be no reasonable doubt.

SCARLATINA ANGINOSA.

November 3d. John, six years of age in January next, was taken with SCARLATINA ANGINOSA in the evening; complained of nausea; cephalalgia; soreness of the throat; took some warm water sweetened with sugar baker's treacle, but soon rejected it without any melioration of the symptoms; an emetic [R. vini ipecacuanhæ ʒ ss.] was given, which had a favorable operation; besides evacuating the contents of the stomach, it was followed by several dejections.

Nov. 4th. Passed a tolerable night; soreness of the throat; cephalalgia; cough; anorexia; fever; on the parts of the body covered with clothes an eruption, which, in the course of the day, spread over the whole cutaneous surface; in the night delirium supervened. [His diet consisted of sugar baker's treacle partially candied; and treacle and tepid water, till he became convalescent. Refined sugar was prescribed for the cough; but he objected to it because it "scratched his throat."]

I remained in the room almost the whole time during the sickness of your brother. In the course of the night, there was observed an expression of uneasiness of which it is difficult to give a distinct idea. Besides the throbbing of the carotid arteries, which is very obvious in scarlatina anginosa, and by some is deemed to be a very prominent symptom; the irregularity of inspirations and expirations; the rapid contractions and relaxations of the muscles of the larynx, and consequently the correspondingly rapid descent and ascent of this organ; the muscles attached to the os hyoides and the anterior portion of the os maxillare inferius; the muscles on which the diversified motions of the face, eyelids, eyeballs, and the short muscles of the head depend, being also strongly agitated, caused a disordered action in the neck and throat, and gave a

cast to the countenance indicating there existed no ordinary irritation in the system.

That the actions of the muscles concerned in deglutition are associated with those just enumerated, is confirmed by anatomy and physiology; so that in the tumultuary motions of the muscles of the pharynx proceeding from inflammation of the mucous membrane of this organ, and sometimes extending to that of the larynx, consentaneous actions take place in those belonging to the larynx, os hyoides, the anterior part of the lower jaw, the lips, eyelids and eyeballs. Hence, by the disturbed state of these organs, we have a clue to direct us to the seat of the disease. These phenomena, to which may be added a very limited rolling motion of the body from side to side, together with an inarticulate, feeble and querulous utterance, expressive of disquietness and exhaustion, made me apprehensive a change which might prove fatal was about to take place. In this emergency the hands of the patient, who was growing worse every moment, were immersed in warm water; the application of this remedy, and a draught of warm water sweetened, had the effect of removing these formidable symptoms, and afterwards those symptoms alone belonging to severe cases remained to be encountered.

The only explanation of the cause of the above catalogue of symptoms is, it was the consequence of a very peculiar or pellicular inflammation in the mucous membrane of the pharynx, which terminates in the production of a membraniform exudation or pellicle. With regard to this peculiar membraniform excretion, or pellicle, it not only may line the *pharynx* which is its *appropriate seat*, but it may spread out every way, either upon the surface of the sneiderian membrane, the mucous membrane of the eustachian tube, œsophagus or larynx. The symptoms, of course, are modified according to the function of the organ to which the preternatural membrane may be attached.

ACIDUM HYDROCHLORICUM. For membranous excretions of the mucous membrane of the pharynx and fauces, this acid is recommended in the form of a gargle. It is a very active, and, no doubt, for the removal of pellicular exudation a very efficacious remedy. I formerly employed it according to the ensuing formulæ:—

℞. acidi Hydrochlorici gutt. XL.

aq. - - - - - ℥ vii.

mel. - - - - - ℥ i.

misce, fiat gargarisma

for inflammations and ulcerations of the throat.

With a tablespoonful of the above compound, I directed the throat to be gargled four times a day. Sometimes the application was attended with the best effect, at other times it produced too great irritation. Not being able with certainty to apportion it so as to relieve the disordered state of the throat, and, convinced the acid was hurtful to the enamel of the teeth, I discontinued its use.

But I have been long in the habit of applying the hydrochloric acid in its concentrated state to ulcerations of the throat. To effect this object, I take a narrow strip of sheet lint or linen, and wind it two or three times around the end of a probe, quill, or the handle of a metallic pen so that the slip may project beyond it, and secure it in that way it may be most convenient. After covering the point, instead of tying it, I make a few casts upward till I can grasp the strip with my fingers. I then moisten the end with hydrochloric acid; and pressing down the tongue with a spatula or the handle of a spoon, I can with ease apply it to the disordered part or parts. I propose this temporary swab as it is called by nurses, and used particularly for the cancrum oris of children; because every time the ulcer is to be retouched the strip should be renewed.

The acid should not be applied but once a day, and should be succeeded by soothing remedies.

This course will very soon make a beneficial change in the ulcers.

When circumstances are such as to make it proper to adopt either method, it must be left with you to select the one you prefer.

Nov. 5th. Cephalalgia had ceased; anorexia; cough more severe; debility; fever; the efflorescence of a deep scarlet color; the whole surface was so exceedingly sore, change of posture was nearly insupportable. Owing probably to immersion in warm water, the hands were not only exquisitely tender, he being unable to bear the weight of the bed clothes, but entirely impotent; and continued so, till after the disease had turned; sleeplessness; delirium through the night.

Nov. 6th. Cough; anorexia; thirst; debility; fever; tenderness of the surface and hands; efflorescence of a very deep or dark red; disease at its height; sleeplessness; delirium through the night.

Nov. 7th. Anorexia; cough; fever; soreness of the surface and hands; ptyalism; restlessness; itching; in the course of the day imagined the brightness of the efflorescence had in a very inconsiderable degree diminished on the face, neck and on the anterior region of the thorax, affording a slight ground for the presumption, the disease had begun to "turn;" freedom from delirium during the day; the accessions of this symptom occurred only at night and lasted till morning.

Nov. 8th. With the exception of cough; ptyalism; itching; defluxion of ichorous matter from the head excoriating the nostrils, upper lips and corners of the mouth; his symptoms were milder; the eruption in the face, neck and breast as far down as the epigastric region had in some considerable degree faded; patient evidently stronger; but still languid and irritable, and continued so for several days, till by the opera-

tion of a portion of physic the alvine excretions, unquestionably the cause of this state of the system, were removed.

From this time his restoration to health was daily progressive. The cough and excoriations were the last affections that disappeared. For the cough, laxatives were the most efficacious remedy : the other medicines serving merely as palliatives. The excoriated parts were anointed with cold cream for the purpose of obtunding the acrimonious discharge from the nostrils, and with relief.

SCARLATINA BENIGNA.

Nov. 10th. Sarah Jane, daughter of one of our domestics, 3 years of age, was seized with Scarlatina Benigna in the evening ; superficial heat great, restlessness.

Nov. 11th. Cephalalgia ; thirst ; fever ; cough ; soreness of the throat ; eruption extending over the whole cutaneous surface ; an emetic ; [R. vini Ipecacuhanæ ℥ii.] a portion of castor-oil ; both operated favorably ; a small dose of antimony daily ; regimen anti-phlogistic ; the eruption turned on the fourth day.

The child was confined to her bed but two days, whereas it was from six to eight days before Alice and John were able to sit up for even a short time ; and such was the prostration of strength when they shewed a disposition to get up, it became necessary to lift them out of bed, and hold them in the lap. In the three cases, the usual precursory symptoms were of very short continuance. The recovery of the two first was gradual ; and it was several weeks after the eruption disappeared before their health was reinstated. In the child, the manifestations of debility were very slight. All three of the patients had been vaccinated ; Alice and Sarah had had the

varicella ; John had never been exposed to the varicellous infection, but had recently labored under the disease. I shall hereafter give you an account of the case. The three have had the whooping cough.

SEQUELÆ. Defluxion from the head accompanied with cough ; excoriations of the anterior nostrils, upper lip and corners of the mouth ; great tenderness of the feet occasioned by the absence of the cuticle which had exfoliated in flakes, were the only complaints consecutive to scarlatina under which your brother and sister labored ; and while these affections continued, their sufferings were by no means inconsiderable. The cough being altogether adventitious, and not by any means necessarily connected with the exanthem of which we are treating, aggravated the sufferings of the patients. There are, however, other sequelæ to which it may not be uninteresting or unimportant to advert.

SLOUGHING OF A PORTION OF THE VELUM PALATI AND UVULA. It has been my habit, as soon as a patient has so far recovered as, in my opinion, not to require my services any farther, to discontinue my visits ; and in this way, many sequelæ may have taken place without my knowledge. This was particularly the case with a gentleman whose family I have attended a great many years. In the course of conversation he informed me I had attended him with the "canker rash," the term made use of in this city, and is synonymous with scarlatina ; and it was in consequence of the sore throat that he had lost the natural intonations of his voice. His articulation is nasal, harsh and unpleasant.

[Since writing the above, I have seen the patient last referred to, and was told by him he had the distemper in the month of June, 1801 — and that he "turned black" at the time.]

DEAFNESS. In some instances the inflammation pervades the eustachian tube as well as the nasal fossæ, producing temporary deafness. In some instances it is so violent as to destroy the membrana tympani and the periosteum covering the flooring of the tympanum, causing permanent deafness; and a perpetual discharge of pus either through the meatus auditorius outwards, or through the eustachian tube into the fauces. Sometimes the organs of hearing are destroyed on one side only. One of my patients was permanently deaf in both ears.

[It was by accident, and not until some years after the recovery of this patient, that I knew he had been deaf; having met his mother she requested me to examine his ears, which I did, and found he was permanently deaf in both. He was young at the time of the disease, and in consequence of the deafness became dumb, and afterwards an inmate of the Asylum for the Deaf and Dumb at Hartford.]

The destruction of the membrana tympani, and the denudation of the petrous or rocky flooring of the tympanum, may be easily ascertained by striking against it with a probe.

PHLEGMONOUS TUMOURS. During the prevalence of epidemics, instances of phlegmonous tumours, originating in the cellular tissue surrounding the parotid, submaxillary and sublingual glands, have happened in my practice; though considerable apprehensions with regard to the event had been entertained, their termination, except in one instance, has been favorable.

TREATMENT. Having found discutient embrocations impeded rather than promoted resolution, they were relinquished altogether; that fomentations and emollient cataplasms applied early to the phlegmon tended to augment its bulk and to retard suppuration, they were deferred till fluctuation became distinctly perceptible, when their application

generally proved innocuous; and that, no advantage having been derived from keeping the affected parts warm by bandages, but on the contrary believing them to be injurious, directions were given to leave them uncovered, till the signs of maturation became evident. The only precaution necessary to be observed, was to guard against cold by keeping the patient in a warm room.

These tumours perhaps, modified by the action of the virus peculiar to scarlatina, occasionally made their appearance simultaneously with the onset of the disease, but they are more generally the consequence of irritation caused by the soreness of the throat. They are subject to the usual terminations of inflammation; resolution, suppuration and gangrene. They sometimes disappear by spontaneous resolution, perhaps never by the influence of medicaments alone; suppuration, as mentioned above, not being promoted but retarded by the remedies usually employed in the treatment of phlegmonous inflammation, its formation has been commonly left to nature; cases terminating in gangrene have never come under my cognisance.

THE OPENING OF THE ABSCESS. Where a phlegmon has suppurated, and in a fit state to be lanced, the opening must be made with great caution, as it is formed in the vicinity of glands furnished with large blood vessels, which are liable to be injured by puncture, or ruptured when the pus is evacuated for want of due support. In either case a fatal hæmorrhage may ensue. In the early part of my practice this accident happened to the patient of an eminent and experienced practitioner in opening an abscess in the region of the submaxillary gland: it is probable the facial artery was wounded.

FREQUENCY OF PHLEGMON. In some epidemics phlegmons occur more frequently than in others. In the epidemic that

prevailed previously to my retiring to the country in '34, I met with but one: though in many respects its characters were equivocal, still it may be considered as consecutive to scarlatina.

CASE WHICH PROVED FATAL. In a child two years of age, of a lymphatic temperament, a tumour supposed to be phlegmonous originating under the right angle of the lower jaw, grew to a great size. [The child was taken care of through the eruptive stage by the nurse, a very intelligent person: my attendance was requested on account of the swelling, which, when I first saw it, was of very considerable magnitude and continued to increase till its dimensions became enormous.] The tumour was of a conical form, and eventually extended across the neck and reached as far as the top of the sternum. At this stage, it communicated to the touch rather the elastic resistance of flesh, than the hardness of phlegmon. There were no signs of its substance falling into suppuration except at the apex, where a very small quantity of pus was ultimately secreted, and discharged without relief or diminution of bulk. The rest of the tumour was a solid mass; and undoubtedly owed its growth to the hypertrophied state of one or more tissues.

The base of this enormous tumour ultimately compressed the pharynx and upper end of the œsophagus, so as wholly to obstruct the passage of the ingesta to the stomach; and it was necessary to keep the patient in a sitting posture to prevent the total interruption of inspiration, which would otherwise have taken place instantly in consequence of the pressure of the tumour on the larynx and trachea.

TREATMENT. As the strength of the child was very much reduced by the disease and low diet, a restorative course was resorted to with partial effect; the symptoms became less vio-

lent, and the growth of the tumour was in some measure checked ; but these flattering appearances were of short duration ; nor was abstinence from external applications recommended in a former paragraph ; nor the remedies made use of for promoting suppuration in tumours reputed to be phlegmonous, in this instance too hastily prescribed from the vain hope they might produce maturation ; attended with better success. Indeed, had it been in the power of remedies to have converted the whole substance of the tumour into pus, the quantity to have been discharged would have been so immense, and the irritation from exposing the internal surface of so large an imposthume to the action of the air, so great, as to exhaust the strength of the child, and terminate its existence.

Notwithstanding the tumour was of so refractory a nature as to resist the salutary action of every known remedial course, yet it would have been in accordance with my view of correct practice to have abstained from topical applications, and trusted to the effect of an elevated and uniform temperature of the apartment, along with very gentle friction with the hand and olive oil, from five to fifteen minutes three times a day, and a light nutritious diet. In this process, particular care should be taken not to occasion the slightest irritation. It was not long before the base of the tumour began to press upon the pharynx, and so entirely close the passage to the stomach, as to preclude the possibility of swallowing a particle of solid or liquid food. The child lived so long after it was incapable of taking the necessaries of life, it is probable it died of inanition and not of nervous irritation.

DROPSY. Collections of water were seldom so considerable as to require particular medical aid. The slight infiltration that supervened after severe cases, disappeared as the patient recovered strength. My injunctions not to allow my patients

to be exposed to atmospheric vicissitudes not only during the course of the disease but while they were in a state of convalescence, were imperative; and their observance may have been the means of preventing the invasion of this sequela.

RHEUMATISM, ERYSIPELAS, ROSEOLA. These are sequelaë to Scarlatina of which I have no practical knowledge. But in an interesting discourse on **SELF-LIMITED DISEASES**, BY **JACOB BIGELOW**, Professor of Materia Medica in Harvard University: delivered before the Massachusetts Medical Society, under note E. page 352, are the following passages: "Rheumatic affections are among the most common." "Erysipelas and Roseola are among the appearances which I have seen to supervene upon this uncertain disease."

OBSERVATIONS ON VARIOUS REMEDIES.

VENESECTION. In the treatment of Scarlatina, I am decidedly opposed to the detraction of blood by the lancet or leeches. In severe cases it is a very hazardous practice. In the inflammatory stage of the disease, the concomitant fever must be of a very high grade to render it necessary to employ these modes of depletion, and then it should be resorted to with great reserve and at the very onset of the distemper, or not at all. In the whole course of my practice in Scarlatina, I have never employed blood-letting, either general or local; and I do not recollect a single instance in which I have had reason to regret the omission. It may be proper to state my practice has been chiefly within the city of Boston. As the situation of a place, and of course, its climate and soil, the

customs and manners of the inhabitants, may have great influence in varying the type of acute diseases; a difference in the mode of treatment may not only be proper, but required.

These remarks appertain to cases of great hazard. In those of a milder nature, inappropriate remedies often acquire a supposititious reputation, because the constitution is able to support their operation, and the deteriorating effects of the disease.

TARTRAS ANTIMONII. Soon after I engaged in practice, Scarlatina became epidemic. At this period I adopted the anti-phlogistic plan of treatment, commencing with a watery solution of tartrate of antimony by which the stomach and intestines were evacuated thoroughly; but its tendency to produce hypercatharsis, and thereby exhaust the vital powers, has induced me to abandon its use as an evacuant; but whenever its operation happened to be gentle, its effect was productive of much advantage by promoting the secretions. An emetic of ipecacuanha is to be preferred.

SUB MURIAS HYDRARGYRI. I have employed this article not so much with the expectation of deriving advantage from its specific action, as its being serviceable as a laxative, alterant and promoter of the secretions. But it was soon found when the sub muriate of quicksilver was given in a glutinous vehicle, it adhered to the mucous membrane of the fauces for some time; and in this way had considerable efficacy as a topical remedy, in reducing inflammation of the throat; this advantage, however, was more than counterbalanced by the irritation it induced.

EMETICO CATHARTICA. Doses of tartrate of antimony and sub muriate of quicksilver in various proportions have been administered in this disease, and it has been thought by some with

advantage. The symptoms of acute diseases are aggravated by the retention of the contents of the digestive tube, which are liable to become acrid, and consequently a source of irritation: under such circumstances laxatives are indispensable; but drastic cathartics are to be avoided, as they irritate the inner membrane of the alimentary canal, depress the vital powers, and disturb the regular course of the exanthem.

LAXATIVA. Infusion of senna sweetened with manna, castor oil, rhubarb and calcined magnesia in sufficient doses to operate, are all the medicines of this description required; and will answer the purpose of keeping the bowels soluble in more severe cases.

CINCHONA. ACIDUM SULPHURICUM DILUTUM. During the two first epidemics that prevailed after I began to practice, many of the older practitioners relied on the tonic power of these remedies, probably with the view of counteracting the supposed tendency of this distemper to putrefaction. But at present, so far as the practice of physicians of this city has come under my cognizance, these medicines are disused.

ANTHEMIS NOBILIS. ARISTOLOCHIA SERPENTARIA. CROCUS SATIVUS. A warm infusion of these articles was formerly much in use; their virtues, however, in Scarlatina are not to be depended upon. I mention these articles because at the present time they may be considered as domestic medicines. The people generally believe a warm infusion, particularly of the two latter, is essential in the cure of eruptive diseases.

SUB TONICA. When strengthening medicine is indicated, I rely on the subtonic power of chalk mixture.

SOLUTIO SUPERCARBONATIS SODÆ. The formula is as follows.

℞. Supercarbonatis Sodæ ʒ ii.
 Aquæ - - - - ʒ viii.
 M.

To a teaspoonful of this solution add a wine glass of warm water; of this take a wine glass full every three hours; it is not to be drunk at once, but by the teaspoonful at a time every few minutes, and swallowed slowly till the whole be consumed. At the expiration of every three hours the process is to be repeated. [See page 4th.]

SUPERCARBONAS POTASSÆ. A half drachm of this article dissolved in a pint of balm tea, for common drink, is a very good substitute for the dilute solution of the supercarbonate of soda. Mucilaginous and farinacious drinks are of great advantage in soothing the irritation in the fauces, as well as affording a suitable diet.

GARGARISMA. There is a variety of gargles recommended which appear to be more the result of caprice than judgment.

Those who prefer acids may use the dilute sulphuric acid in sage tea, in the proportion of five drops of the acid to a wine glass of the tea, to be given according to circumstances.

CAPSICUM ANNUUM, "is a warm, powerful stimulant, promoting digestion, and obviating flatulency. Its abuse, however, produces visceral obstructions and an inflammatory disposition in the system." "In the West Indies it has been employed both externally and internally in the sore throat." I have never employed it in Scarlatina.

VESICATORIA. For the cure of Scarlatina vesicatories are inapplicable. The sensibility of the skin, and the irritability of the muscular system, heightened by the inflamed state of the cutaneous organ, render topical stimulants of doubtful efficacy. The virus stimulates the whole system, and imparts

a morbid activity to the circulatory organs ; vesication also operating in a similar manner gives additional strength to the deleterious tendency of the former ; and by the co-operation of these agents, cases not of a remarkably high grade are often rendered desperate. In children, the sensibility of the integuments, and the irritability of the muscular fibre, are more exalted than in adults. In the former, blisters induce even in other complaints a state of the system, which disposes the denuded parts to degenerate into gangrene ; I therefore refrain from their use, unless in cases where they be imperatively demanded ; then I restrict their dimensions within a very narrow compass. But in Scarlatina, the skin being already in a diseased state, they act with augmented force, and cause so great excitement, as to place the disease beyond the control of remedies ; and in a great majority of cases produce mortification and death. In proportion as individuals advance in age, the irritability of the cutaneous membrane will become hebetated, and the danger from vesication will be correspondingly diminished.

The object of blistering is to interrupt the progress of morbid actions. This is accomplished with more certainty by a comparatively small blister, than one of extensive dimensions ; as the latter, by producing inordinate irritation, exasperates, rather than alleviates the disordered state of the system.

TREATMENT. All that is required after the epispastic has performed its office, is to dress it twice a day with a pledget of sheet lint spread with cerate made of wax and olive oil, or with what is sold in the shops under the appellation of cold cream. But provided the ulcer should become vitiated, or cankerous, or its surface dotted with white spots formed by membraniform exudation accompanied with irritative fever, I direct it to be washed with warm milk and water, and then to apply a curd of alum and white of eggs spread on sheet lint or linen rags, and to repeat it as often as it becomes dry ; and

prescribe such internal remedies as the exigence of the case may require. When the blister is attacked simply with inflammation, emollient cataplasms will be very appropriate. In the Scarlatina I never applied but one blister, and that caused so much suffering, I resolved, unless under very peculiar circumstances, not to apply another.

EMBROCATION. Embrocating the fore part of the neck as far back as the ears with cold vinegar and water was formerly much practised for the purpose of reducing inflammation, but without success. The united action of cold from the mixture, and from that generated by evaporation, which must necessarily arise from the wet surface, suppressed the reaction which is essential in preventing the inflamed and ulcerated parts of the throat from ending in gangrene, and the fatal consequences resulting from this termination of the guttural affection. With regard to topical applications to the neck in general, conceiving them to be not only unnecessary, but often injurious, I have discarded them altogether.

COLD WATER. The success attending the affusion of cold water in the hands of Dr Currie and Dr Gregory in Scarlatina, has attracted the favorable regard of the medical profession in Great Britain; it will also be seen in the sequel, perhaps unfortunately, the practice materially modified has been adopted by physicians in this country without observing the precautions recommended by the above distinguished writers. Of this method of cure I have had no experience.

I have been conversant, however, with the effects of cold communicated through the medium of water from the time I, with other boys, went into water to learn to swim. When we followed the injunctions of our parents and schoolmasters, "to go," as the phrase was, "in swimming but once a day, and not stay in too long," we used to "come out" refreshed

and invigorated; but when we transgressed and "went in" from three to six times a day, or tarried in a great while, especially if we were at the time unusually warm, or the water very cold, or the wind east, or in dog days, we suffered from lassitude, sensation of cold and depression of spirits, which, with comparatively few exceptions, the elasticity of our constitutions soon overcame. There were, indeed, some expert swimmers who, remaining a long time in the water when it was cold, became, as it was supposed, chilled and cramped, and notwithstanding their exertions to reach the shore, were drowned. Thus, due regard must be paid not only to the length of time of remaining in the bath, or the too frequent repetition; but to the temperature of the body, the air and water, to prevent this grateful and salutary exercise from becoming immediately hazardous to life, or eventually hurtful to the constitution.

Since I have been in practice, I have witnessed several cases of a very long continued, or perhaps continued, fever, induced by going into the water too frequently, and staying in too long. In these instances, the surface was uniformly and preternaturally cool; pulse very small, easily compressible, and not very frequent; loss of appetite; prostration of strength considerable; functions of the sensorium slightly disturbed, and their activity impaired; an idiotic cast of countenance; these symptoms continued a long time before reaction took place, or without giving any evidence of exacerbations or remissions.

TREATMENT. Attention to first passages; clothing warm; farinaceous gruels; stimulating and nervine medicines in small doses.

Again, when I commenced practice, the cold and shower bath, which had been very extensively employed in the cure of disease, and acquired a high reputation, began to fall comparatively into disuse. At that time they were resorted to

merely as a source of luxurious gratification, or from an indefinite idea of there being some recondite virtue in the process beneficial to health ; and, therefore, their indiscriminate use might be indulged without regard to consequences.

Moreover, several years after I commenced practice, Dr Currie's treatise on the use and advantage of cold affusions in the treatment of typhus made its appearance. His practice was adopted generally by the physicians of this city ; and in the typhus, when the heat was much elevated, with great benefit ; but in fevers symptomatic of acute inflammation of the various portions of the mucous membrane, which have been prevalent since the year 1815, (a very few cases of typhus having appeared since that period) this remedy is of very doubtful efficacy, (unless the fauces and pharynx may be considered the seat of Scarlatina.) In chronic inflammations the application of cold through the medium of water to the region of the part affected will sometimes be attended with a beneficial result.

Among the variety of means for curing diseases, there is none requiring more judgment and discretion in its application than the cold bath. The shock it gives to the system, either by immersion or showering, may so derange its functions as to produce a formidable and protracted train of symptoms, or render it perpetually enervated, or, unless reaction come to its rescue, overpower it altogether. Reaction is the grand preventive of the mischievous effects of cold however transmitted, either through the medium of water, or air, or ice. This principle is as active in vigorous, as it is feeble in debilitated constitutions. Hence by the former the shock may not only be endured with impunity, but produce a salutary excitement ; while to the latter it might be attended with imminent hazard.

General directions are not safe guides to the uninformed. To produce a salutary result in their application to particular cases much skill and experience are required. A number of years since, there was issued from the press an ephemeral

production which had an extensive circulation, and which, by extolling the virtues of cold and warm bathing in preserving health, and curing various diseases, had the influence of inducing large numbers to resort to establishments erected for the purpose of accommodating those who were desirous of using them as a remedy, or enjoying them as a luxury. As in all popular remedies, so in bathing, if the consequences of its injudicious use are not immediately perceived, there is often a foundation laid for some of the most obstinate and intractable diseases. It is, then, of the utmost importance to those who wish to have recourse to the bath, either for refreshment or health, to be satisfied from the advice of persons who have made the subject their study, their system is in a fit condition to sustain its effects without injury.

CASE. Permit me here to relate (to me) a singular case of the combination or complication of affections referrible to the indiscreet use of the cold bath.

I was desired to visit a young gentleman, twenty years of age, who, in consequence of indulging in bathing to excess, was attacked with dipsosis, limosis and diabetes insipidus. By some the two former are considered as merely symptoms of the latter; but, in this case, not knowing which had the predominance, I have preferred to consider them as a complication. The quantity of water and food consumed, and the amount of fluid discharged, it was impossible to ascertain. Three faithful and capable nurses were in constant attendance, and their time was so occupied in contributing to the patient's wants, they could not with any approximation to accuracy keep an account of the quantity of fluid swallowed or evacuated. The young gentleman's demand for water, food and the urinal were incessant, and accompanied with such an expression of distress as I have rarely met with in any sickness. A pailful of water was placed by his bed-side to afford a ready supply

for the purpose of giving a momentary relief to a most insatiable and urgent thirst, and the urine was voided in such immense quantities, as to require buckets to receive it, and convey it away ; beside, whenever the night cabinet was used, there was a copious discharge of fluid per anum. Provisions, also, were kept in readiness with the view of complying promptly with his frequent demand for food, to which he was urged by an unappeasable hunger.

For some time previous to the attack, contrary to his natural disposition, he was peevish ; dogmatical ; impatient of contradiction ; took an antipathy to individuals for whom before he entertained a great partiality ; would not listen to any argument or reasoning, that contravened his own views of his case.

There was also a turgescence of the whole surface, which appeared to be owing to the effusion of serosity in the areola of the cellular membrane.

CAUSE. The cause was the too free use of the cold bath. There is in the system a faculty of generating heat which is dependent on the function of no particular organ, but resides in every particle of the living body, solid or fluid. That each particle has an independent existence and the power of generating heat, not only receives confirmation from the circumstance, when from any cause it be deprived of vitality, and, of course, its calorific energy, it becomes effete, and can no longer maintain its relation with the rest of the system ; but also from many of the phenomena of inflammation and its terminations. Though each particle may possess this property independently, still all the particles of which the body is composed, by their joint operation or consent, or, in other words, acting in concert, are contributory to the production of animal heat and its preservation at the usual temperature. The heat would become excessive and destructive, were there not a counter-vailing provision, the cutaneous and pulmonary transpira-

tion, by which an equation of temperature is maintained. The motions of the particles are perpetual and vibratory; and the sensation of cold is the result of their approximation, and heat of their expansion. If either their approximation or expansion be carried to an extreme, death is inevitable.

According to the state of the system and the mode of application, cold may prove salutary or deleterious. Reaction is very readily excited by cold, and this principle in sound constitutions is capable of resisting the injurious effects of water at its lowest temperature a long time: the casualties of a seafaring life afford many instances in corroboration of this position. In constitutions that are slender, or disabled from sickness, in consequence of the great diminution of the force of reaction, the greatest precautions must be observed in the use of this agent, as its sudden application might extinguish life instantly. But the vigorous, though they may sustain the action of sudden and transient immersion in water of the lowest temperature, may notwithstanding continue in it so long as to overcome the preservative power of reaction, and produce disease; as in the case, the history of which we have just given.

TREATMENT. When I was called upon to visit the young gentleman, the flow of urine attended with the unremitting distress, alluded to above, was so profuse as to wet the bed through, and run in a stream on the floor.

To produce a change in the morbid actions upon which the infiltration, thirst, hunger and immoderate flow of urine depended, recourse was had to the stimulating properties of opium. Accordingly the tincture of opium was prescribed in small doses and at short intervals at first, and then increased till it took effect, when a longer interval between the doses was allowed to intervene; ten drops was the minimum and forty the maximum number. An infusion of senna in limited and repeated quantities was ordered to keep the bowels open.

On the third day, the violence of the complicated and morbid actions, which were the cause of so much distress and suffering, were in some measure moderated ; and from this time yielded by degrees to diet and regimen ; and finally the recovery of the patient was perfect.

COLD. Cold water may be applied by immersion ; affusion ; showering ; sponging ; aspersion ; sea-bathing ; a column of water issuing from a pump, or poured from a tea-kettle ; snow, or ice or ice water ; swaths, compresses or bandages wet with a solution of salt in water ; or a mixture of vinegar or dilute alcohol and water. However interesting it might be to take a practical survey of the effects of cold by these means, we must omit the attempt, as it would be a digression from the original design of this letter ; we shall, therefore, limit ourselves to the examination of the utility of cold in Scarlatina.

The superiority of the affusion of cold water in Scarlatina over every other therapeutic agent is by no means established. Dr. Currie and Dr. Gregory acknowledge the principal aim was to diminish the redundant heat, in their opinion, one of the most prominent and the most dangerous symptoms in scarlet fever ; and by the bold application of cold, had the gratification of finding the animal temperature much reduced, and the accompanying irritation allayed, without any disastrous result. These gentlemen exhibited great judgment and caution in their procedure. To render effusion affective, they esteemed it essential to be employed at an early stage of the malady, when the heat of the body is ardent, the circulatory organs in a state of high action, and the surface efflorescent and pruriginous. In this excited condition of the system, the patient is to be set upright, and the water poured suddenly on the head ; and afterwards the skin dried with a linen cloth. Dr. Currie used water by gallons, while Dr. Gregory, with equal efficacy, and far less danger, employed only from two to four quarts. The remedial power of this agent is to be ascribed

not so much to the quantity of cold water and its continuance or repetition, as to its instantaneous and forcible impression.

The sudden abstraction of heat, and the sensation of cold, may be imputed to the shock occasioned by the affusion, the effect of which is the contraction of the particles of which the body is composed, so as in scarlet fever to diminish the power of generating heat. After a short suspension of heat, it returns with increased intensity, when the temperature may be again reduced in the same way. Dr. Gregory, in the case of his second patient, grew more bold, and soused him repeatedly into the water; a practice by no means to be imitated.

Because a remedy does not prove destructive, or even if it relieve some symptoms, it is not sufficient evidence of its claim to a preference over other curative agents. Beside, the treatment that can be borne in safety in mild cases, in severe, may prove fatal. In cases where there is no settled plan of cure, palliatives may be no doubt of eminent service, and, therefore, whatever practice may alleviate a distressing symptom should by no means be condemned.

It is stated particularly by Dr. Gregory, affusion alone is sufficient to cure Scarlatina; but, if we peruse with attention the report of the cases in which he relied on the agency of cold alone, in every instance we shall find nausea, vomiting and diarrhœa supervened spontaneously. The great influence of vomiting and purging, when these evacuations are procured by art, in lowering high inflammatory action, has long since been acknowledged, and the propriety of administering them for that purpose settled. Hence, in the cases in which cold affusion has the credit of the cure, the efforts of nature to relieve itself by these means may have contributed in no inconsiderable degree to conduct the disease to a favorable issue.

In the summer of 1833, at the bottom of Pinckney street, I attended the niece of Mrs. —, eleven years of age, who had the Scarlatina Anginosa of the highest grade.

TREATMENT. An emetic ; laxatives ; solution of supercarbonate of soda in water ; the wine of tartrate of antimony ; strict anti-phlogistic regimen ; temperature as low as the weather would admit, 70° Fahrenheit. The medicines were apportioned according to the age and constitution of the patient, and administered as the circumstances of the case seemed to require. The fever lasted eight days, when it abated, and her health was gradually restored. In this case is shown the prejudice physicians have to encounter. After I had visited the child several days, her aunt who took care of her told me quite incidentally she had been giving her for drink a warm infusion of chamomile flowers and snakeroot in equal parts, on the presumption it was essential to "keep the rash out." I forbid its continuance, but I do not believe my injunctions were regarded, as there was little or no remission of fever as is usual, nor subsidence of the general tumidity of the surface, a symptom in severe cases, till the eighth day.

While visiting her niece, her aunt inquired of me with regard to bathing the child in cold water, remarking some of the neighbors advised her to try this remedy, as they were employing it for their children ; and made this additional remark, they were continually bathing them with ice water. I replied this mode of treatment may be very proper, but as I have never practiced it, I preferred not to attempt it, being very well satisfied with the course I had usually pursued. One of the children subjected to this process was in Charles Street, another was in a house immediately opposite to the residence of the little girl I attended. They both died. In these cases, the precautions of Dr. Currie and Dr. Gregory though requisite to be observed were disregarded ; and no doubt, the continued, instead of the transient, application of cold, ultimately rendered the organism on which reaction depends inert.

SCARLATINA MALIGNA, VEL ANGINA
GANGRÆNOSA.

MY DEAR DOCTOR,

After your brother and sister recovered, revolving in my mind the varieties of Scarlatina, I have thought proper to give you two cases of disease of the throat ; and also to request you to collect from Mrs. D. what information it may be in your power, of the cases of her children, who died at her residence in Cambridge.

Your affectionate father,

WILLIAM INGALLS.

In your answer, the account given by Mrs. D. is at variance with the report announced at the time in the newspapers, and with my recollection of the statements made at the same time by those who were acquainted with the family. In a paragraph cut from a newspaper is contained the following obituary notice. "In Cambridge, on Friday night, Helen, aged 5 years, daughter of Ezra Davis, being the third which this afflicted family has been deprived of in the short space of four days."

Thinking it possible cases of this description might come under my care, this intelligence made a strong impression on my mind ; and I was so sensitive on the subject, I examined every affection of the throat with great attention, till its nature were ascertained.

The discrepancy between the above notice and the account given by Mrs. D. will be seen by the following extract from your answer.

"In regard to Mrs. D.'s children who died in 1814 of "putrid sore throat," I gathered the following rather imperfect account.

There were four ; two were twins ; all died in one month, and the disease was upon them only five and seven days. It began with nausea, shuddering and coldness ; very soon came on a pain in the throat which increased rapidly ; great difficulty in deglutition now arrived, so that the little sufferers exhibited more than common dread when one approached with food or medicine, setting their teeth, and struggling violently in their opposition to its reception.

The oldest had no eruption ; one of the twins had a SCARLET ERUPTION most evident about the neck and upper part of the body ; the others had no eruption. The rise and progress of the eruption not remembered.

The *tepid bath* was made use of ; and a decoction of *hemlock bark* as a gargle. As soon as seized, each patient was pronounced incurable."

In the above cases eruption took place in but one, in this efflorescence constituted by no means a prominent symptom. These facts tend to give countenance to the opinion of Dr. Good in *rosalia paristhmitis*, or *scarlatina anginosa*. 'The determination, instead of being to the skin, is deflected to the throat.'

After the death of Mrs. D.'s children, many cases of sore throat came under my care, two of which were very severe.

CASE FIRST. In the first the appearance of the fauces engrossed my whole attention. The color of about two thirds of the *velum pendulum palati* extending to its free margin, and comprehending the *uvula*, was black ; the rest of the *velum palati* and the posterior portion of the palatine membrane to a considerable extent, were of a dark red. At this time, there was to be seen no line of demarkation.

TREATMENT. Being fully sensible, great advantage is often derived from vomiting in topical inflammation, more particu-

larly when situated in the throat, I prescribed an emetic of [℞. pulvis ipecacuanhæ ʒ ss;] to remove the irritation from retention of fæces, a warm infusion of rheum palmatum; for the inflammation of the throat, steam, and a lotion of sulphuric acid and sage tea, as mentioned above; to stop the progress of gangrene, already commenced in the soft palate, a tablespoonful of a decoction of the following recipe every three hours:

℞. Corticis Cinchonæ rubræ
 “ Aristolochiæ serpentariæ aa ʒj.
 Misce et contunde :

DIET. Farinaceous decoctions.

This course had the effect of intercepting the progress of mortification, a line of separation being very visible. The mortified part that sloughed off, comprehended so much of the soft palate as to render enunciation ever after nasal, harsh and indistinct. Of the therapeutic agents, steaming the throat was obviously the most efficacious remedy in subduing the inflammation, and promoting the separation of the sphacelated part. With the exception of the loss of a portion of the velum palati and uvula, his recovery was perfect.

CASE SECOND. A lad about six years of age, was attacked with severe inflammation of the throat; I visited him at an earlier period than the first. The inflammation was erythematic, but the redness was not of so deep a hue as in the former case. The febrile symptoms were more acute, and the signs of irritation more marked. His strength like the other lad's was very much prostrated.

TREATMENT. With the exception of the administration of the wine of antimony in small but repeated doses, and the omission of the astringent and stimulating decoction, a similar course was pursued in this case as in the first.

While the lad was in a state of convalescence, the mother, anxious to take a house in another part of the city, desired my opinion on the propriety of removing him.

On account of the danger of his going abroad so soon after the violent inflammation with which he had been afflicted, and particularly from its situation, exposure to cold air would almost inevitably produce a relapse, I was opposed to his removal. Giving some general directions, I discontinued my visits.

In a short time after, the mother desired me to visit her son again in the house to which she had removed. I found the lad in a deplorable condition ; respiration restricted ; face flushed ; pulse rapid and small ; utterance imperfect. In attempting to articulate, the emission of sound was scarcely audible. The only approximation to sound was a noise made by the lips exactly as is made when a person is endeavoring to light a tobacco pipe. The importance of the symptom will justify the introduction of so homely a figure, as it is strictly pathognomonic of a diseased state of the parts immediately concerned in the formation of sound, and the consequent cessation of the vibratory motion of the vocal chords.

The lad had been indisposed a few days : I apprised the mother of his danger, and that the issue would, by all ordinary means, be fatal. Laryngotomy was proposed and acceded to. While I was gone for instruments and such assistants as were necessary, the affection had so far depressed the vital powers, that when I arrived with the design of performing the operation, the patient was in the article of death.

POST MORTEM EXAMINATION. A pustule as predicted [the prediction was founded on the nature and severity of the inflammation in the first attack, and want of resonance when attempting to speak in the second] was found situated partly in the sinus laryngis and partly on the inferior vocal chord of the left side, about the bigness of a pea. It had the appear-

ance of being about to suppurate ; and the mucous membrane in its vicinity was inflamed and thickened.

VARICELLA. The last of February, 1837, John broke out with the chicken-pox. The premonitory symptoms were lassitude and cephalalgia, which soon after were followed by an eruption in various parts of the body : behind the ear, there was discovered a pock, which filled and burst on the fourth day ; the fluid it contained was limpid till the fourth, when it became somewhat opake ; on the fifth the contents of the pustule or vesicle had disappeared.

On the face there were several small vesicles, which, notwithstanding their diminutive size, left pits ; on the breast they were large, shallow, and of short duration ; on the posterior region of the thorax, among others, there were three of large size upon which were formed scabs, two of which remained about four weeks, when they fell off, leaving pits which penetrated through the superficial tissues deep into the cutis vera. The pox ["properly pocks"] (I should prefer the word pock and to make use of it as a noun of multitude) with the exception of the desquamation of the scabs on the posterior region of the thorax, passed through the several stages about the same time with the vesicle behind the ear. Anorexia ; cephalalgia ; propensity to lie a-bed ; incited action of the vascular system ; continued three days.

So far as we know, John's disease was sporadic.

This case has been given in detail, as there are in Europe eminent practitioners, who contend the varicella and variola are identic ; and as the history of the latter in Boston furnishes irrefragable proof, however striking the resemblance, the chicken is never converted into the small pox.

To prevent the spreading of the variolous contagion, two measures were adopted ; first, inoculation was prohibited ; second, for the accommodation of families liable to suffer from

the casual small pox by strangers or infectious clothing, a hospital was provided at a distance from the town, to which, at the public expense, persons attacked with this loathsome malady might be removed, and where infectious articles might be cleansed ; as either circumstance might become the cause of the general prevalence of the disease. Any member of a family might, and often did avail himself of his constitutional right to remain in his own house.

[The confidence that was reposed in the judgment and fidelity of the attending physician by the municipal authorities, and in return the deference paid to the authorities by the physician, produced a mutual courtesy and good understanding which were not disturbed for many years. Formerly, nothing was more common, and nothing could be more proper, than that the attending physician should meet medical gentlemen in consultation, but then he met them on equal footing ; he was subjected to no dictation ; nor was he put under the superintendence of a semi-decemviri. Times are changed : there is an act now in force which is unconstitutional, and which as is evident from its whole tenor, must have been engendered in the brain of a committee, **AT THE FULL OF THE MOON.**]

Restrictive measures were adopted, because, prior to vaccination, an alarm that "the small pox is in Boston," deterred the people of the country from bringing in their produce, thus having the effect of raising the price of provisions and rendering them scarce ; and likewise interrupting the trade between town and country, and diverting it to some other market.

When the state of the atmosphere was favorable to the propagation of the small pox, so many cases occurred as to cause a general alarm of the inhabitants, the majority of whom were not protected, the regulations were suspended, and permission given for a general inoculation. A late professor of Anatomy and Surgery said, notwithstanding all the means

taken to prevent its introduction, it became indispensable to permit the disease to go through the town once in about fifteen years.

During the time the town was exempt from the influence of the variolous contagion, varicella frequently prevailed as an epidemic, and very few arrived at the age of puberty without having received the disease ; and in no instance did the varicella and variola prove to be either identic or convertible diseases. There were, however, cases where the commencement and progress of the disease so closely represented the symptoms of small pox, as to require great acumen and sagacity in determining the nature of the exanthem. Hence, it became incumbent on every physician to exercise his powers of discernment and discrimination to discover the nature of the eruption under which a patient might have labored. A mistake in diagnosis would have been attended with a loss of reputation and standing in the profession, which to have regained, might have required a long and continued success in practice.

On this subject, at this time, the people were exceedingly excitable : that an erroneous opinion would have subjected the physician to the scoffs, taunts and perhaps the violence of an infuriate populace, is in some measure exemplified by the following case.

CASE. While in attendance on a wounded man at the head of a lane, leading to what was then called Howard's Wharf, I was desired to visit a girl, thirteen years of age, at a house next the wharf with a "breaking out." The circumstances attending the eruption were such as to convince any one in the least conversant with the disease, it was not the small pox. When I called the next day, the pustules had partially filled and resembled the chicken pox so exactly, I did not hesitate to

pronounce it to be such. The family in which the girl lived interrogated me very closely with regard to the nature of the disease, and discovered some mistrust of the correctness of my opinion. On leaving the house, and passing through the lane, a great many derogatory remarks were made from windows and doors evidently with the design I should hear them ; and persons whom I met asked me questions with an emphasis and significance of manner — the object of which could not be mistaken.

The whole neighborhood was in commotion ; complaint was made to the Board of Health ; Dr. Welch, then the quarantine physician, who was at the Hospital Island, was sent for. The next morning we met in consultation, when we decided it was not a case of small pox. This decision quieted the apprehensions of the people ; afterwards no more insulting reflections were heard. The extent of the eruption was greater than I have ever witnessed. The next day, desquamation had already far advanced, and was completed in a very short time.

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 it was not a case of small pox. This decision produced the
 apprehensions of the people; afterwards no more infectious
 reflections were heard. The extent of the epidemic was
 greater than I have ever witnessed. The next day, design-
 nation had already far advanced, and was completed in a very
 short time.

At this time the epidemic was at its height, and the
 authorities were very anxious to prevent its further
 extension, and to remove the infected persons to the
 hospital island, where they were kept in quarantine.

It is not to be forgotten that the epidemic was
 first introduced into the island by a vessel from
 the continent, and that the disease was first
 observed on the 1st of August, 1800. The epidemic
 was at its height on the 15th of August, and
 was completely over by the 1st of September.