A Probationary Essay

on

Selenitina

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by

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Dr. Scarlatina

Scarlatina is a disease whose early history is involved in much obscurity. The first reference to the disease in this country is found in the writings of Sydenham, in the year 1689, it was then doubtfully seen in its melilit他们在s form, so he does not mention any alleviation of the throat. Dr. Snowball was the first in this country who described the most malignant form of this malady. In a lecture, where published in 1746 entitled "On accounts of the Sour Throat attended with Fever," he says: "It seemed to yield to no remedy or application whatever," and his statements have been corroborated to the fullest extent by other authors in the histories of subsequent Epidemics. Thus Dr. James Pen concludes an Account of Scarlatina as it prevailed epidemically in London in the year 1746 as follows: "Having stated the bad effects of these methods of treatment, it may be asked what method ought to be employed. I venture to recommend nothing; and that whatever remedies were used must be prompt and powerful." This example which ought to be multiplied, would lead us to conclude that up to the commencement of the present century, few physicians recognized more than two forms of the disease, and that they considered them both beyond the pale of medicine, the one from its harzardous, the other from its deadliness. Scarlatina may be defined to be a disease characterized by contagious erythema and a peculiar eruption on the skin, appearing first in minute points, which afterwards coalesce...
and diffuse themselves over the whole surface, ending in the purpuraceous desquamation of the cuticle. It is an affection which occurs more frequently in the earlier than in the later period of life, and is often met with towards the end of the autumn and beginning of winter, than at any other season of the year. Indeed it often occurs at these periods as a very prevalent epidemic.

Opinion seems to vary as to the conservative influence of an attack of scarlatina, preventing an immunity to the patient from its subsequent recurrence. Observation however favors the opinion that it does not, and without entering into the arguments on either side, I think the latter the safer side to err upon.

In scarlatina the face and throat are always more or less swollen; the latter in many instances, manifesting a highly purulent condition, more particularly so in those individuals which are characterized by typhoid symptoms. The fever in this affection may be of an inflammatory or of a more putrid type, or these two conditions may be so blended together as to render it difficult to decide which most predominates. While the febrile symptoms subside, glandular and particularly anginous swellings are apt to subsist.

The type of this fever, whether as regards its acutely inflammatory, its septic or composite character is much modified by the conditions of the atmosphere, and perhaps by
certain electrical phenomena affecting its constitution, of which little is known. It is also modified by degen-
eracy and temperament, and by circumstances pertaining to localities where the houses are crowded together, the popu-
lation dense and cleanliness not attended to. The modifi-
cations however depend most upon the comparative situation of the person peculiar to individual circumstances, independently of all external circumstances.

That Scarlet fever is capable of being propagated from one individual to another, in other words that it is a highly
contagious disease is a point not generally conceded by all. May
however be permitted to observe, that contagion will not always
account for its appearance; for the disease often attacks many
individuals in a town or locality simultaneously, thereby leading
us to the necessary inference, that some more general cause operated
for its production. Whether this cause arises from an endemic en-
vironment of the soil, a peculiar state of the atmosphere, a
degeneration in food, a fruitful accumulation of decaying vege-
table or animal matter, or whether one or some of the above cir-
tanced circumstances, singly or conjointly, give nearly a
predilection to the reception of the agent that produces the
disease is a matter involved in much obscurity and difficulty
which the researches of science afford me satisfactory expla-
nation. I deem it sufficient here to notice briefly the occur-
rence of the malady in this simultaneous manner, confiding
it, at the same time however, with the fact, that when an individual labouring under the disease or who has recently been in close contact with those affected by it, goes to a healthy district, he is able to communicate it to such as he comes in contact with; and these again to others who may have a predisposition to its reception, and this indefinitely. In other words, not only atmospheric, but some other unknown influence is known to operate both as a predisposing, and as an exciting cause of Scarlet Fever, to many individuals in the same locality, and persons who are affected with the disease themselves, or who carry some of the contagious particles from other labouring under it, may propagate it in districts where no demonstrable state of air, or other marked cause was known to exist, and when the disease has once established itself, whether by a general or an accidental cause it is liable to spread rapidly and become epidemic.

The media by which contagious matter is carried from a diseased person to a person in health, are various. The first and principal of which is a still and humid atmosphere; but the absence of currents of air and the humidity allow the exuviae of their evanescing from the sick to accumulate, and as a humid atmosphere favours the abstraction of positive electricity from a healthy body, thereby depressing the vital powers, it consequently becomes more susceptible of the influence of morbid evanescences.
Another medium by which miasmata may be trans- 
mitted is by articles of furniture or clothing in a par- 
sicularly by woollen or hairy substances. How long the mias- 
matic matter imbibed by a communicating medium may retain 
its activity, is a question not yet established; nor has the 
period of time that miasmata from the first impression 
of the infective agent till the development of its effects 
been satisfactorily determined by authors, who still con- 
stantly state it variously as occurring from one to twenty 
sex days, or even six weeks.

From the tenor of the preceding observations it will 
be seen that I consider Sarlatrix as a generic disease, 
comprehending several varieties; these may conveniently 
be classed and described under the three following heads: 
First, Sarlatrix simplex; second, Sarlatrix anguina; 
Third, Sarlatrix maligna.

The first variety, Sarlatrix simplex, is at times unaided 
in the premonitory symptoms so small as scarcely to attract 
attention, while at other times they are strikingly prom- 
inent, such as rigor alternated by fits of heat, headache, dull 
aching pains chiefly in the head, back, and extremities, 
nausea, sometimes vomiting, thirst, quick pulse generally 
more feeble than natural, confusion of ideas and expres- 
sion, very little appetite; the alvine evacuations are little, 
if at all altered in quantity, but the urine is generally
high coloured and turbid. On the second day as stated by most authors, on the fourth as asserted by Cullen, and even on the first, as occasionally seen by Heberden and others, uncommunicable red points appear which in a few hours infect and effuse into scarlet patches over the whole surface of the body, but more prominently observable upon the anterior part of it and about the flexures of the joints. When pressure is made the redness vanishes, but quickly returns upon its removal. The skin is seldom unusually affected, but frequently presents interstices of nearly a natural colour. The temperature of the body is high, being about 10^\circ of Fahrenheit; contracted with the cutaneous efflorescences a similar degree of redness may be observed in the mucous membranes of the mouth, fauces, nose and inside of the eyelids, and also in the phalanges of the tongue, which are seen protruding through the white coat with which that organ is covered. The appearance of this general efflorescence is seldom, however, accompanied by any commotion of the fever. On the fifth or sixth day from the commencement of the disease, the eruption begins to fade, a gentle sweat usually comes on, and with it the concurrent febrile symptoms gradually subside. The change of colour in the cuticular surface departs in the same order in which it appeared, e.g. first from the face, neck and breast and lastly from the extremities. The cuticle then becomes scurfy, and desquamates.
freely up to the tenth or eleventh day, when if continued, circumstance occurs the patient gradually regains his former health and strength.

I ought perhaps have mentioned that the duration of the rash is influenced by the duration of the fever, and will remain accordingly as its continuance is more or less protracted: and when both have disappeared, and that the fever from some cause or other is reproduced, it is almost uniformly accompanied by the recurrence of the rash. The latter has been known to occur without the former, and myself have had it reappear from the influence of mental emotion, upon hearing suddenly of the death of a relative while convalescent from the disease.

In the second variety of the disease, that which is termed Scarletina anginosa, there is a more intense degree of fever, and a much more considerable affection of the throat. The symptomatic symptoms are delirium of shudders, even in very young subjects, great lassitude, laborious breathing, ague alternated by heat, nausea, vomiting of bilious matter, rapid small or hard contracted pulse, headache, delirium, and occasionally convulsions: there is also a sense of tightness in the throat, and of stiffness in the muscles of the neck and shoulders. On the second day of the fever this sense of the throat increases, and is accompanied with difficulty of deglutition, and a peculiar huskiness of the voice, the
delirium is greater particularly towards the evening, and the patient feels smart pricking pains as if poked with the points of needles. The temperature of the skin is very high, frequently extending to 112° of Fahrenheit. The velum pendulum palati, the uvula, the aryepiglottis, the posterior membrane of the fauces, and the papillae of the tongue (which is moist) assume a highly fluid luster, and in most instances are considerably swollen. On the third day the rash comes out, making its appearance first on the face, neck, and hands, afterwards on the loins and extremities, but without bringing any mitigation of the symptoms which on the contrary are often aggravated, and fresh ones arise. As the disease progresses a universal edema, which has not unfrequently been likened to the appearance of a boiled lobster, covers the face, body, and limbs which appear swollen. The eyes and nostrils partake likewise of the edema, and in proportion as the former have an inflamed appearance, so does the tendency to delirium prevail. There is occasionally an acrid discharge from the nostrils which excoriates the upper lip. A cough very soon succeeds as exudation of coagulable lymph begins in a short time to collect about the sinuses which adheres with much tenacity to the part underneath, and when in the form of opaque patches, look like and are often mistaken for sloughs. The efforts made by the patient to cough these up, are frequently
distracting, and when they are got rid of in this manner or by gagging, the mucous membrane underneath is some highly reddened, but with an unbroken extensiveness of surface. Occasionally however, even in this form of the disease, numerous affusion vesicles do appear on the mucous epithelium and after coalescing and bursting, leave behind them a reddened and excavated surface, but this when properly attended to manifests no analogous tendency and is speedily covered by a new epithelium.

The inflammatory affection occurring in the mouth and throat, is not always confined to these parts, and if the attention is directed exclusively to them, serious concomitant sequences may ensue, from the extensive affection of the mucous lining in other parts of the system. The liability and predisposition of the mucous membrane to take an inflammatory action in this disease requires that the practitioner should always here be in mind. The reason why the attention is so much directed to the throat is in consequence also of the mucous membrane there, being connected to the subjacent parts by a loose filamentous tissue, which readily admits of swelling, thereby forming a serious impediment to the proper performance of the functions of deglutition and respiration, another cause is in consequence of the conspicuous appearance of the inflammation in this part from its extreme vascularity.
The efflorescence in this form of the disease begins to fade about the same period, or perhaps somewhat later than it does in the first; but the subsequent cuticular disorganization extends over a greater space of time, and goes on to a greater extent, the cuticle frequently peeling off the hands like a pair of gloves, and off the feet like a pair of socks.

I would not have it supposed, because I have described certain phenomena occurring in Sarcocynthia anguivora, at stated periods, that such uniformity is always observable. The eruption on the skin, for instance, may vary in the time of its appearance, from the second to the fourth day. It may appear, and after the lapse of a few hours, suddenly recede altogether, or appear in a few hours or days afterwards. The throat affection also may either precede, succeed, or appear simultaneously with the cutaneous efflorescence. From all which it will be readily inferred, that this variety of Sarcocynthia is much more severe than Sarcocynthia simplex, and that it requires much more activity and judgment in the mode of treatment; indeed in these cases in which the eruption either does not appear kindly, or when a sudden retrocession of it takes place, considerable danger is always to be apprehended from visceral congestion, and the intervention of internal inflammation, which not unfrequently involves the whole of the respiratory, digestive, and some venous mucous membranes; and so little can general appearance of convalescence be relied upon in forming
a prognosis in this intractable malady, that many who have
apparently mastered all the above mentioned symptoms, never
experience a grateful or entire restitution to health, for glandular
and diphtheric swellings, the latter too frequently of an insidious
and dangerous nature, may supervene, requiring the most sci-
centific diagnosis and medical treatment for their removal.

Nor are these formidable sequelae to be estimated by the com-
paratively mild or excruciating character of the primary disease, for
they occur as frequently and are equally as unmanageable
after the one form of the malady as the other.

The third variety of the disease termed Tularia maligna
is the most fatal form on which it makes its appearance.

It was formerly thought to be a disease sui generis and totally
distinct from the other varieties, and was described under the
terms Bongina, gangrenosa and Eymanche maligna; but
from circumstances already alluded to, it is now generally
admitted to be but one of the varieties of the generic disease.

The symptoms at the outset of this variety vary in different
individuals, depending much of course on other varieties
upon the previous state of health, habits, and temperament of
the person attacked, and the greater or lesser virulence of the
specific contagion. Sometimes according to Krukenam, it is
 ushered in by a rigor, a feeling of fulness and swells of the gland
and painful stiffness of the cervical muscles; sometimes by
alternate chills and heats with some degree of godliness.
Occasionally, or headache, while at other times the symptoms are indicative of a much greater degree of oppression, such as great pain of the head, back, and limbs, a vast oppression of the praenodica with continual sighing and a weak fluttering pulse, but the symptoms which most commonly introduce this variety, are congestion, pain, and heaviness of the head, dull red eyes which are suffused, and occasionally coated with a thin film of mucus, extreme weakness, vomiting of bilious matter, more especially in children; and hanging, with small quick and irregular pulse. The countenance may be cut off from the hot and blotted on pale and sunk, the breath is exceedingly fetid, there is a livid colour and fulness of the neck with retraction of the head and delirium or coma. The skin is not so intensely hot on this as in the other varieties of prevalence; one is the third so great. In the disease permeates the tongue, teeth, and lips are covered with a dark brown incrustation, the palate, uvula, and buccal and the posterior part of the fauces are of a purplish hue, and covered with whitish or ash-coloured spots. The inflammatory action of the interior of the mouth frequently extends along the excrutiatory ducts of the parotid, sub-maxillary, and sublingual glands to the glands themselves, causing them to inflame and swell, and when it involves the Destruction to the children may frequently be the terminal living membrane, because the seat of inflammation and instead of a purplish efflorescence.
we have a coffee coloured one, dependent upon an inter-
ruption to the vital change which takes place in a state of
health, in the blood in its passage through the lungs. The
lungs assume a peculiar hoarse and hollow sound.

On or about the third day of the disease, all the symptoms
become materially aggravated, the whitish coloured spots
in the throat are found to be streaks of superficial or
deep seated ulcers, and when these ulcers have separated,
the parts underneath exhibit the usual dark diagnostic
marks of destructive gangrene. There is considerable difficulty
of respiration, and sense of suffocation from the affecting
of the larynx, pharynx, and a rattling sound in the breathing
occasioned by the collection of a thick viscid phlegm clogging
up the lungs. The nasal space get evacuated, discharging
cohesive matter of so acid a nature, as to occasion much sic-
osis about the mouth and cheeks, and according to consolidation,
then blistering the hands or arms of the affectedist, when it comes
in contact with them. The fever of the hectic increases, as the
general symptoms become more and more aggravated. The
anxiety and restlessness increase in like manner, having often
break out, or severe haggard suffocation, and the patient
at a period ranging from the third day, to the sixth or eighth
frequently sits under the complications and evidence of the
sickness, if however he survive, a cutaneous rash may be
expected to make its appearance, but the period of its approach
in the character it will assume cannot be predicted without any degree of certainty. It may be slight and evanescent as to escape notice, or it may assume a dark glossy line with protective and itching interspersed here and there throughout it, or where there is the bronchial affection already mentioned, giving rise to the coffee-colored effusion of the mucous membrane of the lungs, the same tinge may be expected to characterize the cutaneous rash; it may also disappear and reede suddenly and after a few days appear again. The appearance of the eruption seldom fails to give some manifest relief to the delirium, nausea, vomiting, pungency under which the patient has laboured; but its presence must not be looked upon as an infallible criterion of a favourable issue. The prognosis in this form of scarlatina, is to be regulated by a regard to the following circumstances: if for instance, the cutaneous rash appears early and fiercely, if a gentle copious sweat breaks out on the third or fourth day, accompanied by a slower, firmer, and more regular pulse; if the ulcer in the throat presents a tolerably clean and fluid appearance after the sputum has been cast off, if the breathing becomes softer and less laboured, and a degree of leveling and contentedness return to the eye, a favourable termination may be confidently predicted. But on the contrary, if the cutaneous eruption suddenly waxes, or if, when present,
Fleable and black spots appear interspersed through it; if the pulse continue small, rapid and occasionally indistinct; if the ulcerations in the throat become more extensive, and are covered with dark-coloured sloughs; if considerable delirium continue, if there is conga with glazed eyes, and a cold clammy sweat upon the skin; if the gastro-intestinal mucous membrane becomes affected, attended by involuntary stool or bloody stocks the patient in all human probability will not recover.

Before concluding any observations upon this variety of paralysis, I would briefly refer to the occurrence of cases having such a violent degree of malignancy, as to cut off the patient in a few hours, and I cannot do better than quote the language of Dr. Armstrong, who was the first to notice them. He says: "When the disease prevails epidemically, children, and even adults, sometimes after exposure, now and then die suddenly, from the operation of the contagion without any appearance of effluence in sore throat. They are attacked with convulsions, or with the symptoms of apoplexy, and frequently sink into insensibility and death in a few hours. He adds: "I met with whom I am acquainted has mentioned this the occasional effect of the contagion of Febrifaces, but as it took place casually, claiming an epidemic untraced some years ago, I have deemed it a duty to record it."
He attributes the insufficiency of the issue to "concretion of the
bronchial linings about the lungs, and about the head;"
and speaks of it as being a general effect of congestion peculiar
to some form of fever.
It is obvious from what has been said that this fever
like others is liable to be complicated with internal
inflammations, and that it may take place equally in the
sacrum, which is accompanied by high excitement, since
that when the irritation is so great and severe that we could hardly
a priori believe the existence of inflammation possible.
The medical practitioners should be constantly on the watch
for the occurrence of such complications; and with a view
to their speedy detection, he should familiarize himself
with the form and symptoms of every inflammation
whether latent or patent, simple or combined. We must not
however expect to find the inflammations of the same
character with those which take place idiospathically
or without fluxes in the first instance; for, even especially
in the malignant forms of inflammation, the deteminated blood
circulating through the brain and other parts of the
nervous system, seems to act as a narcotic, rendering
them less susceptible to the influence of pain, and
less capable of evoking the more striking forms of
disease sympathetic action.
It would be out of place here to enter into a lengthened
Description of the several diseases with which inflammation may be complicated. After having called attention to the latest state in which they may frequently occur, and the necessity that exists for the practitioners being constantly on the guard to detect their supervision, it will be sufficient simply to mention, that inflammatory affection of the mucous membranes of the larynx, trachea, bronchus, and even of the paranasal area of the lung itself, singly or in combination with one another, are more apt to occur during the winter or spring months, whilst those of the mucous membrane of the bowels, or of the substance of other abdominal viscera, generally prevail in summertime. Whether shall however, will depend upon the dwellings, the clothing, the habits of exposure, the constitution, and the healthy or unhealthy condition of the different organs of the individual affected; these circumstances having all a greater or lesser tendency to predispose to certain forms of local complications. After stating that the brain and its coverings are extremely liable to take on acute or sub-acute inflammatory action in this disease, I will leave the subject until I come to the treatment, when I will describe that applicable to the various symptoms which may present themselves.
Several diseases might be enumerated, occurring occasionally susceptible to scarlatina, yet none with such uniformity as to entitle them to a description here, always excepting suppurating glandular swelling and dermal effusions; the former are observed chiefly in the cervical glands, and are singularly to merit as it requires no separate notice, but the latter occur so frequently, and are occasionally attended with such alarming consequences, as to demand some considerable attention.

This cutaneous disease principally appears in the form of pruritus, though by no means invariably so; complications, hydrothorax or hydrocephalus may complicate it, and add considerably to the danger, I may confess however that I have only met with these cutaneous swellings occurring after scarlatina, in their milder forms, and have found them much more amenable to treatment than any other species of erysipelas, but the practitioner should be aware, that they occur occasionally do occur in a form which baffles all skill, and carries off patients with most fearful rapidity, and some afflux is to be far more dangerous and fatal than the primary malady. This should lead us to adopt every measure to prevent the supravention of such afflications and when they do occur, to exercise...
very aid and assicw, with promptness, decision and
judgement. This sequel to "calamine" is to be observed
principally during the earlier period of life, but it was
entirely confined to those. In I have observed two
such cases, in which the patients were far beyond
the age of puberty.

One of the prominent symptoms of this consecutive
disease, it is that after several days' amendment, there is
a feeling on the part of the patient as if something
prevented him from improving to health. H is usually pre-
ceeded for a day or two by an unaccountable languor
and lassitude, with sickness, frequently by nausea and
headache and a stiffness in the limbs. The pulse at
the outset has been found slow and beating with
irregular intervals, but it afterwards became accelerated.
There is a costole tongue, thirst, capricious appetite,
disturbed sleep, constipation, bowel, and frequency of the
urinary excretion. These symptoms are specially followed
by evidence of the face, and particularly of the eyelids,
which soon extend to the superciliar muscles and de-
velops over the whole body. The urine still continues
attractive, and on standing for a few hours, becomes turbid
and deposits albuminous flecks, or it may occasionally
assume a dark brown colour, depending apparently upon
the union of the colouring particles of the blood.
If tested by heat, the solution of oxalate sublimate
the suble, or mucinetic acids, or the ferrous point of fixed
acids, it will be found to exsulate readily whenever
in which, contrary to the opinion of some pathologists, no
apparent disease of the kidneys can be detected after
death. Unless preceding treatment, all these symptoms
may subside; but in the more unusual and less
favorable cases, dangerous complications may ensue.
The substance of the lungs may become embolized with
blood, or serious effusions may take place into the cavities
of the pleura, the pericardium, the peritoneum, or the
perineurial membranes, each of these lesions being indi-
cated by their appropriate set of symptoms. Thus in Allra
of the lungs, in dilatation, and in Drong Of the Pericardium,
the general symptoms are oppression and uneasiness of
breathing, inability to lie down, a short frequent cough,
and sense of constriction about the chest. The physical
signs in the part mentioned disease, are dulness on per-
ecussion, indistinct respiratory murmurs, and a substrata-
ling rale over the part of the lungs affected. In the second
phase it also dulness on percussion, but absence of respiratory
murmurs, but both of these alter their site, as the position
of the thorax is altered. Thus if the effusion does not occupy
the whole cavity of the pleura, there will be dulness on
percussion and absence of respiratory murmurs in the
submaxillary region while the patient is in the erect position, but on placing him on his back and allowing the fluid to gravitate posteriorly, the anterior part of the lung again comes in contact with the walls of the thorax and yields their normal sound. A peculiar sound of the voice, termed expiratory, from its resemblance to the blowing of a gnat, is heard posteriorly, beneath the superficial angle of the scapula, for the production of which a very thin film of fluid suffices to be interposed between the lung and the thoracic wall, but speaking from cases I have seen, I should say that in this disease such a sound is rarely present, or when present it exceedingly difficult to detect. In the third mentioned disease of Drury of the Pericardium, the physical signs are an unnatural bulging of the intercostal spaces over the cardiac region, a dullness on percussion over a greater extent than natural, and an obscurity in the sounds about the heart. Two or more of these diseases usually co-exist and give rise to a corresponding complication of symptoms. The extension of the disease to the brain, is indicated by the ordinary symptoms of hydrocephalus, such as headache, nausea, irritable stomach, strabismus, dilated pupils, slow or irregular pulse, convulsions, coma. The symptoms of disease are sufficiently manifest and require no particular description.
These varieties of dropping occurring after convulsions are undoubtedly of an inflammatory character, as evidenced by the frequent pulse, and other feverish symptoms, by the coagulable urine, by the efflorescence derived from the blister blisters, the mode of treatment, and lastly by the nature of the swelling, which I have often observed at the commencement, to be more subtle and less inclined to put up pressure there in some other forms of accidents. This elasticity I think may be indicative of a greater viscosity in the effusion than might be expected, if it were not the product of a stoppage of inflammatory action going on in the capillaries.

From my own knowledge and what is recorded of this consecutive disease, I would venture to draw the following conclusions:—that it frequently most during cold damp seasons; that its intensity varies constantly, depending on the degree of cutaneous eruption, that it consequently seldom or never occurs as a sequel to scarlatina maladie, where the skin is little affected; and that when one considers the extent of surface which the skin exhibits, as well as the important office which it performs in the animal economy of daily eliminating immense quantities of fluids, it is no matter of surprise, that extensive pathological effusion should be the result of its deprived or but imperfectly restored functions.
It may not be uninteresting to mention the frequent recurrence of cases of Rubella and Smallpox during an epidemic of Scarlet Fever. I am aware that these two diseases, Scarlet Fever and Measles, both occur at the same season, calling for some little confidence but not withstanding this I feel perfectly convinced that the same whatever it is, that produces each of these two diseases as well as the other above mentioned is essentially different, as is caused by the ultimate differences of the effects produced, and I would mention the prevalence of the smallpox at the same time as in some degree illustrative of the numerous causes stated by Dr. Holland, whose medical volume named the connection of certain diseases to the state that disease concerned as wholly distinct in their nature and analogous as such in our systems of etiology, every turn out to be associated together by the existence of causes of common origin. Without affording the matter much to be the same in Scarlet Fever and Measles or other diseases which he describes, and mentioning it to different kinds of them, yet to say "relative they probably are closer and more familiar than any which have yet been ascertained." The most recent appearances in fatal cases of Scarlet Fever are by no means uniform, and depend much on the nature of the complications occurring, previous to death. In some instances, reaction can be
found sufficient to account for the fatal termination of the condition; whilst in others and indeed very generally, the throat and air passages exhibit the effects of high inflammation, as does the brain and its meninges, with occasionally an effusion of serous into the ventricles of the former, or into the cavity of the arachnoid portion of the latter. In other cases where the disease has extended to the pulmonic mucous membrane, it will be found injected and thickened, and the air cells filled with a curved secretion; in others the intestinal mucous membrane, and also the liver present strong traces of previous inflammation; action; in others again the joints are filled with a fluidulent fluid, while the synovial membranes are not at all affected. In the malignant form of the disease, there is every indication of a relieved and of what is called a suppurant state of the fluids. From the preceding slight sketch it will be seen, that the marked appearances may be various, and that in fact, as in casual ordinary continued fever, there is no regimen in which which may not become affected during the progress of this disease.

The History now gives of a fatal line commencing with the cold in the nose, in which the throat is little if at all affected and including that dangerous o
in which the part becomes the seat of gangrene, warrant
us in concluding that all the varieties of this disease
defence not in degree, that there is abundant evidence fur-
method to prove it highly contagious, and that without
futilely theorizing about the particular system upon
which the poison gains its to the disease, find acts,
we may set it down as an established fact that the
effects produced by it are an overcharged or inflamed
condition of the capillaries of the skin, or mucous
membranes, or both, and that as the capillary enga-
gement of one or the other of these tissues predominates,
the character of the disease will change. Thus in the Fora-
latina, the cutaneous tissue is principally
affected. In the Foralatina anginosus, the cutaneous
and mucous surfaces may be partly equally involved;
but if the balance preponderates in favor of the latter,
a decap form of the disease may be decided. In the
Foralatina, the capillaries of the mucous
membrane are inordinately distended, with or without
an affection of the cutaneous vessels, and in this form
of the disease there is an irresistible tendency to disor-
organization and death.

Richard's and Rosalee are the only maladies with which
Foralatina is said to be confounded, the contra-distinction
being marks are the following, Rosalee are rendered in by
quantal symptoms, viz., laryngitis, cough, with expectoration and sneezing, which are not common to Scarletina. Indeed, the eruption in the former makes its appearance until the fourth day, instead of on the second, as is usual with the latter, and as it is rough and prominent to the touch, is of a conical or conical-lunar shape, leaves the indenture of the skin of a natural colour, and does not terminate in cuticular desquamation to any great extent; but, it presents characters which are totally different from those assigned to the rash of Scarletina. The sequelae of the diseases also are different. Affections of the tracheal mucous mem.-

have more commonly occurred earlier, whilst Pneumon- as already stated is the most common sequel to Scarletina. The diagnosis between Scarletina and Rosela is much more difficult and the one disease has been frequently mistaken for the other. Rosela, however, differs in this, that the throat is unaffected, the cough comes out earlier, and also lasts longer and is not in general followed by desquamation of the cuticle. The eruption is of a rose colour, instead of the bright-red or scarlet seen in Scarletina, and taken in all its features it is a disease of a much milder nature.

Before commencing a description of the treatment-
necessary to be pursued in cases of Tocolisma, it may not be superfluous to observe here, that each variety included under the general head, requires a corresponding variation in the mode of treatment, and that each epidemic is characterized by symptoms approximating more or less to one or other of the varieties of the disease, and consequently the remedies recommended in one epidemic, may be totally unsuited. Applicable in another, the epidemic also which is marked at the outset by signs of extreme inactivity, may assume a much more character towards its termination, so that one form describing the treatment he found beneficial at the commencement may be altogether at variance with another who witnessed only its termination.

After having directed attention to the inflammatory complications, whether manifest or latent, and the hereditary or acquired peculiarity of constitution, which are apt to alter the complexion of this disease and the necessity that exists for modifying the treatment accordingly, it is needful to again return to these subjects rather than to quote an observation of an excellent authority on these which I cannot help thinking requisite, viz., "In all things the physician must be regulated bycause and cause in medicine there"
is no special rule absolute, and he who would lay down the same line of treatment for the victims of poverty, hardships, and anxiety who are besieged with fevers, as he would for the coldest, highest, and fortune when affected with this same disease, must be very deficient of discrimination indeed. In truth, medical science is immensely the science of circumstances, and the more closely we are regulated by them, with as much the more certainly and advantage shall we conduct our practice.

In the treatment of Typhus fever simple, the first step will be to regulate the temperature of the patient's apartment, keeping it under 60° Fahrenheit and to admit into it an abundance of pure air. The latter measure, indeed, is indubitably salutary, not only in this but in all the other forms of the disease; and I would most emphatically call attention to it, once for all. Here, I am convinced, that when this means of elevating and carrying off the fever, which produces and is generated by the disease, is neglected, the attendants and others are not only capable of being affected with the malady, but the patient himself will be considerably augmented, by the increased quantity and concentration of the malarious matter accumulating around him. One attention gives
to the above points, and the regulation of the action of the bowels by mild laxatives, the enforcement of a light diet without animal food, the employment of cool medicated drinks, and the changing of the body with warm water when it is a truly beneficial thing natural, have been deemed the only measures requisite in this variety of the complaint; and if we entertain that the disease were to assume the mild character assigned to it by Sydenham and others, such remedial measures would be highly judicious and would comprise every thing necessary. This certainly, however, so far as my experience goes, cannot be attained in practice; for I have seen cases showing the mildest premonitory symptoms, and when few remedial agents have been employed, ending into a sudden fever. Instead, therefore, of following the above mentioned illustrious author, in his attack upon the officiousness of the medical attendant I would say that the modern delineator could not be too greatly excusing my premonitory horizon, by stating, that the character of the epidemic in question, is widely different from that described by him. In the peculiar locality of the cases of scabulosis that I have been seen ever where the premonitory symptoms were mild, I have deemed it advisable to order an Aesculopian
emetic, presuming it when I saw tingling of the
eyes and other signs indicating a tendency to cerebral
congestion, by the continued abstraction of blood, either
by means of the Vein or Locelle, according to the par-
ticular age and strength and the effects produced by it.
following these measures up by the warm bath, the
administration of a purgative of Colonel and Elisha-
after which I ordered some febrifuge as the Militia of
phosphate in solution of some of the caustic or sub stance
to be given occasionally during the progress of the fever
indicating the temperature of the surface of the body when
it became febrifugally increased, by pouring it with
vomiting and cold or tepid water and keeping the hands
regular by the elevation of arms, exertion of some
other wild exercises.

Scurvies usually occurring under a mild form,
requiring little treatment beyond what has already been
mentioned, as applicable to the preceding variety, but
when the symptoms are severe, or correct, scaling energy
of practice is required. Thus when there is excessive heat
of surface, flushed face, delirium, and full quick pulse,
blood letting has been recommended; and notwithstanding
the loss that has been expected of its retarding the ap-
pearance of the constitution and otherwise altering the
regular course of the fever. I have seen cases under
treatment where the physician has felt called upon to resort to it and certainly with so much
inconstant results. After bleeding, when that measure is indicated, the head should be lowest and thought
cooled by either with cold water; cold or tepid sponging may also be used to the surface of the body, and a third pre-
ventive administered, say of fruit and scarify or gamboge, combined with loaves' powder. These means
have often a remarkable influence in allaying the
inordinate feticus excitement, and according to my
observations, have had the effect sometimes, of entirely
altering the type which the patient appeared to be
assuming. In reference to the efficacy of purgation
Hamilton has observed the purgant heat of surfacc
violent headaches, turgescence of face, flushing of
countenance, and full and thick pulse, the earliest
symptoms of some epithelium of scrofula to be quickly
subdued by one or two purgatives; he qualifies his
recommendation however, of the indiscriminate em-
ployment of these peculiarities, by limiting them use to
the specific purpose of unloading the bowels. The
practice of using affusions, particularly of cold water,
has had many able advocates, and in the earlier stage
before the disease becomes complicated with inflammation,
it is decidedly a bold and is said to be a beneficial measure
"allowing that general excitement of the heart and arteries, by the continuance of which, topical inflammation may be produced: But notwithstanding this general recommendation of its use, I would say that in most instances, the cold or tepid bathing of the surface, repeated several times a day according to circumstances is equally useful and much more convenient and manageable in its application. The testimony of an able authority says, Bateman intellect this mode of using it is so strong and vigorous, that I cannot refrain from quoting his language. "I have had the satisfaction" says he, "in numerous instances of witnessing the immediate improvement of the symptoms, and the rapid change in the countenance of the patient, produced by washing the skin. Insensibly in the course of a few minutes the pulse has been diminished in frequency, the thirst has abated, the tongue has become ensnares, general free perspiration has broken out, the skin has become soft and cool, and the eyes have brightened, and these indications of relief have been splendidly followed by a calm and refreshing sleep. In all these respects, the condition of the patient presented a complete contrast to that which preceded the cold washing; and his tongue was exchanged for a considerable share of vigour. The enervated heat it is true, which
Thus removed is liable to return, and with it the
distressing symptoms, but a repetition of the remedy
is followed by the same beneficial effects as at first.
It will be necessary to observe, that cold bathing in
the winter, with the cold infusion is applicable only
to the early stage of the disease, when the structure
is not much reduced, the skin hot and dry, and the pulses
anxiety considerable, but in the more advanced stage,
after symptoms of delirium have appeared, and that
the pulse has become small and irregular, and the
skin relaxed, the direct depression of subsequent remission
produced by cold will be too violent and therefore
unmanageable. Nothing of determined on, will, under
such circumstances, be preferable in a cold state.
If the general and accidental excitement is relieved
by the convulsive motions of the preceding cause,
or an auspicious accident may be admitted instead, the
action will be found to keep up the impression already
made upon the system; the congestion of the liver, in
ability to occur during this, as well as all other lesions,
considerably lessened, if not removed by this remedy,
the infected hemoptical and gastro-intestinal nerves
sometimes are beneficially affected by it, and the clay
resulting from its action on these organs excite a
remarkable effect in abating the general feculent action.
indeed clysters, speaking generally, are a most useful
class of medicines, and I at all exhibitions to the extent
that the benefit arising from their administration would
lead one to expect.

In addition to the medicinal measures recommended,
the concomitant affections of the throat demands some
more particular share of our attention; and with a view
to relieve the inflammation and swelling to which it is subject, I know of no means more efficient
than the inhaling of the smoke and turpentine
in the parts affected by means of soda-baths with
the lanced. The application of leeches to the external
souces, succeeded by warm fomentations, may also be
found useful, particularly if used after the adoption
of the preceding measures. If the patient be old enough
the inhalation of the vapours of warm water and turpentine
or of an infusion of hops, will be found agreeable and
a most soothing application; and when the throat is
much obstructed by viscid mucus, its removal will
be best effected by the administration of clysters or by
inhaling warm vapour impregnated with tea.

Dr. Armstrong counsels clysters, under such circumstances
the best griddles that can be used, their operation
effectually discharging that viscid secretion for a time,
allowing the dilatation, improving the appearance of
The fever, and even preventing an attack of erysipeloid, as well as lessening the chances of inflammation of the throat extending to the internal ear; they may be repeated, he says, at any time during the fever, when the respiration or deglutition is much impeded by accumulated phlegm. When the use of gargles is determined on, the following will be found amongst the most appropriate: R. Aquae Anthelii Spirit. Acidi Hydrochlorici 3r, Hellebori Rosei 3j, nitri Gargarismo, or E. Pulv. Chlorargyri Calci 3j, Aquae Rosettii. When the patients are so young as to be incapable of gargling their own throats, a little of either of the above gargles may be introduced by means of a syringe; or the fullness of cleaning the throats will be answered equally as well by allowing the young patient the free use of acidulated drinks; any of the mineral acids, mixed with a due proportion of water, and rendered, if necessary, more palatable with sugar, will serve this end.

When inflammation arises during the progress of this form of Sibilation, depletory measures may be found necessary, but their adoption should be well considered; for a very limited abstraction of blood may produce a collapse from which the vital power may never again be able to rally; or by lowering the nervous energy, may increase still further that capillary congestion.
which led to the inflammation we are called upon to combat; but whether depletion, fomentations, purgatives, or other measures be adopted, counter-irritants and rubefacients over the parts affected, will be found serviceable adjuncts. When inflammation of the cutaneous mucous coat obtains, purgatives will require to be used if at all admissible; with great caution, the chief reliance in such circumstances must be placed in enemata for procuring the necessary evacuations.

When the patient has become relieved of the more prominent symptoms of the disease and its complications, by the foregoing means, his convalescence is to be carefully watched, and his strength supported by commensal gruels, light broths, and preparations of arrowroot, sago, tapioca, and such like. Where tonics are indicated, the sulphate of quinine and the sulphurous or hydrochloric acids are the best. In cases where great debility is present, a small proportion of urine or blood, as recommended by Dr. Bunting, may be given; these, however, require to be administered with great caution, as they are believed by some, and particularly by the last-named author, to predispose to pleural effusions. It was of opinion, and very properly so, that if the patient be confined to the house, and kept...
upon a mild diet; and the regulation of the bowels carefully attended to, until the period of cutaneous desquamation has passed over, this secondary affection will rarely occur.

In cases that I have seen, the secondary affection could in general be traced to some independent exposure or other incursion, while the stage of desquamation was going on, and I believe most practitioners could give evidence of a similar kind.

Scelatinus Malaga is the next, and as already stated the most dangerous form in which this disease is known to assume; and in the treatment of it, various remedies have been recommended, many of them having very opposite tendencies. The indications of treatment, however, as arranged under the following heads:—first to repress all inordinate excitement; secondly to prevent the tendency to gangrene, by supporting the general strength; thirdly to favour the separation of slough from the surface, and keep the latter in as healthy a condition as possible; and fourthly, to guard against the occurrence of local complications and visceral congestions.

Great differences of opinion exist as to the propriety of using antiphlogistic measures in this variety of the disease. Some Physicians, of whom I may mention Dr. Armstrong, strongly recommend very section and large
doses of calomel, while others, and those constituting the
majority, condemn bloodletting in toto. Those who advocate
bleeding, admit however, that it can only be had recourse
to in the stage of excitement, which is in general early that,
and in some instances so consequent of fever so to,
that in unobserved—low typhoid symptoms ushering in the
disease from the commencement. In such cases bloodletting
could not be otherwise than injurious by promoting still
farther the vital power, hastening the supersession of
gangrene to which the patient is already so much predisposed.
The majority of cases which I have seen, even when ultimately
evoked the most malignant tendency, showed an
appreciable stage of excitement; and when this was the
case, bleeding was sometimes had recourse to, but as
the patients were in general children, a few leeches were
the only means used.
The most successful practice in my hands, and which I feel
warranted in recommending for general adoption has been
the following:—If the skin be very warm, and the pulse
pulsing and full, I apply leeches beneath the angles of the
jaws, or behind and below the ears; if the pulse sucks
during their applications, I immediately remove them, and
check the exsanguination from their bites; but if on the contrary
it keeps full and force, or rises and becomes softer, I encou-
rage the bleeding by fomentations or poultices. After which

I recommend the warm bath, following it up, after a short interval, by a dose of opium, which in general, not only quiets but purges. Should it fail in producing the latter effect, I order a purgative composed of calomel, in combination with either senna or a Jamaica poudre. When the first indication of treatment has been thus accomplished, a different plan requires to be pursued in reference to the second, i.e. to preserve the strength during the low flabby state which this comes on. To fulfill this indication, animal broths and jellies are to be allowed, and carbonate of ammonia in doses varying from three to four grains, maybe given as a diffusible stimulant and dephlegmator. Carbonic acid gas is often used with marked benefit, not only as an antispasmodic, but as a sedative when there is nausea and intractability of stomach. The best mode of exhibiting it is by causing the patient to take the neutralised medicine and favouring the evolution of gas in the stomach; and this object is best attained by giving the bicarbonate of soda and lemon juice in tartaric acid, in separate draughts, immediately after each other.

The liquor chlorinae is also said to produce very beneficial results, even in the most advanced stage of the disease; it enervates the liver, and promotes healthy evacuations, commencing on a weak infusion of Columba will be the best vehicle with which to combine it. I need scarcely add
that light will have the effect of decomposing this liquid, and that a metal spoon should not be used, but a cork-tipped combination be employed whilst administering it. With these precautions, from 3 to 6ij may be given to an adult in twelve hours, divided doses, lowering the quantity according to the age of the patient. Capucium is another medicine which has received high commendation from several practitioners and more particularly from Dr. Stephens. He prescribes it in the following manner: Three tablespoonfuls of common capucium paste, and two tablespoonfuls of fine salt are to be heat into a paste, to which half a pint of boiling water is to be added; of this mixture the dose for an adult is a tablespoonful every four hours. Dr. Armstrong was sceptical to all kinds of stimulants. Having tried both plans of treatment upon an extensive scale, he declared that the practice became satisfactory to himself only since he adopted the depletion system, which he continued to follow in the onset even of the most malignant forms of the complaint up to his death. Wine and quinine may also be used to fulfill this second indication, but the use of the former in all cases should be carefully watched, and the extirpation mentioned in a subsequent part of this essay, in reference to its use, carefully attended to.

To fulfill the third indication of treatment, gargling various kinds have been recommended and employed.
Out of many, the following may be selected as some of those in common use. The Balsam of Peru, Quassia, Wild Cherry, Fenchel, Rosemary, and the Infus of Ginger in a glass of water, I consider as sound practice. However, until I have seen the turpentine in the form of a piece of hard liquor, I shall not consider it as a remedy. I have used the linden caustic pretty freely generally in substance and after the sixth or seventh week. When the patient is old enough to inhale the vapors of hot water and vinegar, or the fumes of the cleft, it will be highly desirable to make him do so. Blisters to the throat arerecommendable in this variety of the disease, from the great tendency that exists to gangrene, and failure of the system. However, by no means inefficient substitutes.

When describing this form of the disease, I stated that the presence of the cutaneous efflorescence, betrayed great sickness of character, and that its sudden retrocession was an alarming symptom. Should this ever occur, active measures must be promptly resorted to for its cessation. The warm bath, strongly unguentated with salt and mustard; fomentations applied to the skin, with
hot brandy and vinegar, or turpentine, rubocations,
dry cupping, and mustard suppositories over various parts
of the body, may be all necessary, and when combined with
the internal use of the following mixture may have a happy
effect: N. Camphor 3. Alcohol 2.5. soluti, dein addis
Vinum
3fp. liquore, and administer from a dessert-spoonful to a
tablespoonful every hour.

Should inflammation of the respiratory organs occur, during
the progress of this form of Scharlach, a great degree of caustic
will require to be observed, respecting the propriety of blood-
letting, and when this is determined on, the extent to which
it may be safely carried, will require no less consideration.
Indeed when the disease is confined to the bronchial mucous
membrane, with excessive secretion from that surface, the
adoption of this measure may very fairly be questioned; or
according to my opinion, entirely dispensed with. The nausea
attendant upon the administration of caustics, will in such
cases be the utmost lowering means, that can with safety
be recommended; and from their tendency to relieve capillary
congestion, to alter the diseased state of the mucous secretion
and exist in their expulsion when accumulating, they will
be found of the greatest benefit. Ejections too of rather a
stimulating kind, must be used; such as the decoction of
Senna, with camphor, at the same time the strength is
to be supported by means of a bland, generous diet, with
wine cautiously administered, and a careful observance of
its effects. Should the wine be found to produce or increase
restlessness, hurry the respiration or quicken the pulse, or
that under its use, the tongue becomes drier, and the mouth
thirsted with thirst, it is to be discontinued, but if on the con-
trary, the patient appears to relish it, and if there be a gen-
eral improvement in the symptoms, indicated by a tendency
to sleep, a slower state of the respiration and pulse, and
a moist condition of the skin and tongue, it should be used
sparingly.

Affective of the mucous membrane of the stomach and
bowels are to be combated when there is distinct evidence of
inflammatory action by the general measures recommended
at page 35-6. When the abdomen is swollen and feels tense
and tympanitic, an arsenicated enema will give great relief;
and when this condition is accompanied by diarrhoea or
passive haemorrhage from the intestinal mucous surface,
the internal instillation of the acetate of lead until Bureer
of the chloroacids of soda or lime, particularly the latter, in
conjunction with camphor, or syrup of poppies, and the
administration of starch and laudanum enemate, may
each be allowed a trial. Where the sinking from the
intestinal flux is great, brandy brandy, mixed with
ammonium sage, will be the most appropriate stimulant.
conjoined with the application of external warmth. I need not, I think, say more about the complication of this disease, or attempt following them out in detail as such a plan would swell out this essay beyond the limits usually assigned to such productions, and I should be but recapitulating the minutiae of general principles, already sufficiently exemplified.

The sequelae of Scurlatia which I have described as being most frequently glandular and subfebric swellings are always troublesome, and frequently dangerous, requiring both tact and skill in their management. Inflammation of the cervical glands will often require cauterizing, fomenting, and poulticing, and should in some form, which not ungenerally happens, it should be let out by the lancet. Any remaining induration in these parts will be best discussed by frictions with olive oil and mustard, while those local means are being used, attention must be paid to the general health.

Depressional effusion is the most alarming sequel to this disease, and requires frequently if not always most immediate practice. I have already expressed my opinion that it is of an inflammatory nature, and in proof of which I referred to the benefit derived from antiphlogistic measures. Many authors have borne forcible testimony to the same effect, and none more so than Burnens in
The account he has left of the Scarlet fever epidemic that prevailed in Florence in the year 1917. He therein mentions that from the result of the dissections made on the bodies of persons who died of the disease, he was led to consider it of an inflammatory origin, and consequently all his subsequent cases were treated by blood-letting, and with the most happy results, no death occurring thereafter.

As an instance of the lengths to which this remedial measure has been carried in acute cases of this disease, where a vital organ has been implicated, I will quote a case from Dr Marshall Hall, reported in the Lancet of Nov 30th 1839.

"The patient was a boy aged twelve; sixteen days before he had gone through scarlatina in its very mildest form, he had scarcely been confined to bed, and had not suffered from the minia medica diligeniea, he had appeared quite well. On Sunday morning, he was seized with swelling of the face, which came on and increased equally suddenly and rapidly. With this symptom, there was the appearance of venous and sudden collapse, and soon afterwards convulsions followed by coma. When I first saw my patient there were convulsions, followed by deep coma; none and hardly on the table indicated sufficiently the previous state of the case. I felt persuaded in spite of these appearances, that the only hope was afforded by relieving the vascular system within the head, and yet the measure was not
unattended with danger. This view was fully explained to the boy's father, who very sensibly said, he confided his son's life to the hands of his medical advisers. We placed the patient in the recumbent position and Dr. Duffin opened the jugular vein. I kept my finger on the pulse, whilst we allowed twenty ounces of blood to flow; the convulsions ceased, and the coma diminished, but did not disappear. We then ventured to open a vein in the arm, and abstracted seven more ounces of blood. In less than an hour the little patient knew his parents. We prescribed calomel and purging medicine, a cold lotion to the head and fomentations to the feet; afterwards leeches were applied, but the bloodletting was the remedy to which the ame
sment was obviously due. The little boy recovered partly,
and what is important, without the least symptom of the worst effects of the loss of blood.

In the great majority of cases, however, where an organ
of such vital importance as the brain remains unaffected,
bleeding to the extent described above is quite uncalled
for. In most instances, the objects will be to excite to healthy
taction, the capillary system, and to restore the functions of
the skin. These indications will be best promoted by moderate depletion and the repeated use of the warm bath,
with subsequent frictions, either by means of dryflannel,
or by warm oil, interposed between the skin and the
hand as advised by Dr. Middleton. Glasse should be worn next the skin, the bowels should be briskly opened, and diuretics, such as the nitrate or acetate of potash in solution, with a due admixture of digitales tincture, administered internally. Should the kidneys, heart, liver, or lungs, shew indications of disease, each known by their appropriate set of symptoms, blood-letting by means of cupping or leeching, followed up by counter-irritation, over the parts affected, or, according to the continental plan, at a little distance from these, are amongst the most approved measures, at present resorted to, in conjunction with some of the others already mentioned, for restoring them to their normal condition.

Amongst the overworked, sensibilious and ill-fed denizens of large cities, cases will frequently cheer themselves, de-

manding a much modified form of treatment compared with that just mentioned. In such cases, the following will be found sufficiently applicable to all exigencies, without the employment of either general or topical blood-letting, viz., the warm bath, fusions to the skin, mild frigates, and the employment of a combination of the tincture of digitales with the tincture of the murrate of iron. Respecting this combination Dr. Holland speaks highly. He says, "that in the anasarca following scarlatina, where together with weakness, there is still an
excited and irritable state of the arterial system, it would be difficult to find any single combination more effective."

It now only remains for me to add, to the subject of treatment, a few remarks on alimentation, and the general management of patients during a state of convalescence; for it must not be thought that a patient is then in a state of complete recovery. For from it, for the slightest indisposition may not only produce a recurrence of the worst symptoms, but in many instances, is known to have been followed by fatal consequences. In this condition, the powers of life are much below the natural standard, and the equilibrium of the combined systems of the animal economy is easily disturbed, and individual organs are highly predisposed to the occurrence of diseased action. Often, very often, indeed, even when the patient has escaped the superintervention of acute diseases, the seeds of chronic ones may be engendered by his carelessness and inactivity during the period of convalescence.

For some days a little increase in the quantity of nourishing or other aliment the patient may at the time be taking, will only be allowable. This may be followed by the gradual use of animal broths, and ultimately of animal food, sensible in quality and moderate in quantity. The patient's feelings of hunger should not always be
consulted, for they are frequently greater than his powers of digestion.

Should the appetite be too keen, it will require to be restrained by diluent fluids; and the use of stimulating and tonic medicines should be prohibited, not only in this but in all cases where there are not unequivocal indications for their employment. Much rest and repose in bed, a dry equable temperature, and freedom from all causes of mental excitement are highly necessary to recovery. The pulse will assist much in regulating the time a patient may with safety set up. If, for example, it rises thirty or forty beats in the minute, shortly after getting out of bed, he should return to it again. As a general rule all fatigue must be carefully avoided. The contents of the bowels should be regularly evacuated, if necessary by means of aloe, cowherb, and gentian. If the stools show a deficiency of bile, an occasional grain or two of blue pill or calomel may be given as an alterative and emulgent for the liver; frequent ablutions applied all over the body with soap and warm water, will be of considerable use in restoring the healthy functions of the skin, a matter of considerable importance.

I will now conclude this essay with a few remarks on prophylactics. The first and most important mea-
sure, to prevent the communication of the disease from
the sick to the healthy, is to separate the former from the
latter; the second, is to cause marked attention to be paid
to ventilation, and to cleanliness generally; the third, to
recommend a generous diet, frequent exercise in the open
air, the use of the warm bath, and such other means as
tend to promote the general health. I have no faith in
fumigations as disinfectants.

With respect to the supposed preventive power of Beller-
oma in its action against Smallpox, I am exceedingly sorry that
I cannot speak from experience on this subject, more par-
ticularly as many German authors attest highly the
advantages, real or supposed, which they have derived from
the exhibition of this medicine. Dr. Hahnemann of Leipzig
the inventor of the Homoeopathic doctrine, was the first
who preached the opinion of its prophylactic power.

His mode of administering it is by dissolving three grains
of the extract in an ounce of distilled water and giving
two or three droops of this mixture twice a day to a child
under a year old, increasing the dose one droop for every
year additional, and this to be continued during the
period the child is exposed to any source of infection.

The immediate effects produced by its use in this dose
are said to be the following: heat and dryness of the
throat, obtundence of the salivary glands, and an
efflorescence or papular eruption like miliaria, or the skin symptoms certainly very similar to those we have described as characteristic of some cases of Syphilis. Dr. Kellermann gives his results of his experience on the efficacy of this drug in preventing Syphilis in the German Journal. He states that during the prevalence of an epidemic Syphilis, he exhibited the Belladonna to one hundred and twenty children from one to six years of age. Twenty or thirty took the medicine irregularly, and twenty-five or thirty he found did not take it at all. Of those who took it regularly, five contracted the disease, of those who took it irregularly, eight, and of those who did not take it at all, eleven; results certainly far from being unsatisfactory, and demanding greater consideration respecting the use of this prophylactic than has yet been given to it at least in this country.

[Signature]