Miller

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A Despicable Impudence

On Scenery.

George Wilkinson
The first mention we find of a disease resembling Scurvy is in the
writings of Hippocrates, who describes a malady, during the course of which,
the teeth of the patient were loosened, the breath became fetid, accompanied
with haemorrhage from the nose and ulcers on the legs: it occurred after
intermittent fevers, and the Spleen was enlarged; he thought the disease origin-
ated in that organ and therefore called it Spleen Magna. Dr. Budd, in the exam-
nination of the bodies of men who died from Scurvy, found that the Spleen
was a little enlarged, and some authors on this subject agree in that
intermittent fever is more than a predisposing cause to this malady
so that these symptoms are in accordance with those of true scurvy; but then he goes on to state that the patient was cheerful and happy, which are quite opposed to this disease. Besides when we remember that Greece is a fertile country and abounds in fruit, it is not probable that a disease should break out amongst its inhabitants, which is prevented and cured by the use of fruit. Wherefore I argue that scurvy was very rare, if at all known amongst the Greeks, and that the probabilities are that the epidemic mentioned by Hippocrates was not in reality true scurvy of the same nature as the disease known to us by that name, though possibly some allied blood discrasia.

Pline mentions a disease that occurred in the army of Cæsar Germanicus in Germany. He writes “that the Roman Army under the command of Cæsar Germanicus having encamped in Germany beyond the Rhine, near the
Sea Coast, they met with a fountain of sweet water, by the drinking of which, in the space of two years, the teeth dropped out, and the joints became paralysed. The physicians called the malady stomacace. They discovered a remedy in a plant called Herba Britannica, a salutary medicine not only in disorders of the mouth and nerves, but for the quinsy, ritis of the parts 15. Dr. Lind thinks that this could not have been scurvy, as there is no mention of scorbatic spots, indeed he thinks it a fable as no fountains answering to the description have been discovered.

But I think it seems probable that men accustomed to warm climates and having abundance of fruit and vegetables as a portion of their food, after living in a cold climate and on animal food, should be attacked by this complaint, and as they had no knowledge of the Pathology of diseases, they naturally ascribed the cause to the water as it had re
peculiar taste; nothing is known of the plant mentioned by him as the Florida Britannica, if that were proved to be a succulent vegetable, which, it would go a great length to support the supposition that this disease was scurvy.

Some authors have supposed as this malady has not been satisfactorily described by the ancients, that it did not exist prior to the twelfth Century; but I think with Dr. Lind, as animal food and dried fish were their chief subsistence in winter, as the first accurate cases on record occurred in the North, and as the name has been traced to Scandinavian origin, the disease very probably was prevalent among the Northern Nations of Europe. The Greek and Roman Authors, who make mention of a disease resembling scurvy, give the same description as Hippocrates and Pliny.

According to Dr. Budd, the first record of this complaint to be relied on, are those given by Le Sieur Girville during
during the Crusade of 1260, he speaks of "the debility and tendency the soldiers had to become, of black spots on their legs, of bleeding from the nose, and of livid & spongy gums." I think there are very evident symptoms of leucy, and as they were forced to live in dirt, the malady occurring in Lent, and had a bad supply of water, they must have been in a state favourable to the disease. Scurvy seems to have been little known in civilized countries, although it was prevalent amongst the Northern tribes, until the latter end of the fifteen Century, when long voyages were for the first time attempted, and when it was necessary to have ocean fleets for the protection of colonies. The colonists of Newfoundland and New-France, at that period, suffered very much from it during the winter, as they lived on animal good and were shut up in forts. They seem to have been unacquainted with the disease before going there, as
James Carter, in an account of his second voyage in 1588, calls it "the unknown sickness," and states that five and twenty men died from it before they learned from the Indians a cure in the decoction made from the juice of a tree called Ameda, which Dr. Budd thinks was the large spruce fir, and he thinks that plants of that kind have the properties of preventing and curing scurvy. It troubled the French colonists as stated by Monsieur de Monto, who writes in the year 1604. He calls it also "the unknown sickness," but they could not discover the Ameda of the Indians mentioned by James Carter about the year 1641. There was an epistle published by Celsius which is the first now extant written on scurvy. He gives the causes and symptoms of the disease but no Ameda. In 1664, Remusat published an epistle on the scurvy of Holland, he seems to have examined the disease very accurately, as the symptoms and cures
he mentions, are quite in accordance with those of the present day. Since that time it has been reckoned one of our standard diseases, and owing to the large amount of our maritime communications Britain has had no lack either of sufferers from its range, or of writers on its nature. Not many years ago it was the scourge and the terror of our seamen, but of late years the improvements in navigation, and thereby the shortening of voyages, together with the general understanding of the nature of the disease and the facilities for its prevention and cure, have almost banished it from our navies or at least proved it to be, when it does occur, the result either of culpable negligence or of very unforeseen accident.

Scurvy may be defined as a disease manifested by a tendency to numerous extravasations of blood either in the subcutaneous cellular tissue...
or upon the internal mucous membranes, together with great debility and prostration of the whole system, fever of the breast, sponginess of the gums and other cachectic symptoms; the first symptoms are not local nor the local ones, but more indicating a disease of the whole system; the fetid breath, the swollen spongy gums, the pale and listless countenance with excessive debility, are generally the first symptoms indicating its appearance. If these are not checked, the disease begins now to manifest itself in a more local form, and the skin becomes affected. It is at first dryish and by degrees spots of extravasated blood begin to manifest themselves below the epidermis, which go through all the different shades of colour observed in a part which has been trained. They generally appear first on the lower extremities and are accompanied by slight oedema and
shifting, pains. The above symptoms mark the disease as we usually meet with it, and it is not often now-a-days allowed to go further, but if it be not checked the hemorrhagic tendency increases and not only do the cutaneous patches increase in size, but blood is poured freely from the mucous membrane of the nostrils, mouth, larynx, stomach, and bladder. The patches on the extremities also are apt to become ulcerated and the ulcers thus formed are of a peculiar emphysemy character, producing large fungi and emitting a thin, fetid, bloody discharge. The bowels are usually disordered throughout, though often in the first stages not so much so as might be expected. In the latter stages the hemorrhagic tendency develops itself here, and symptoms may be somewhat resembling dysentery may be produced. In some cases this dysenteric inflammation of the bowel is found to accompany the disease, and when we
consider the cause of the malady it is scarcely to be wondered at. Expetlement of the system thus going on in two ways, firstly by the general tendency of the disease as shown from the commencement, and secondly by the gradual loss and destruction of the vital nutritive fluid, prostration rapidly takes place. Inflammatory symptoms seldom show themselves, and the circuluation though it may vary in rapidity is rather indication of Aethenia or sometimes of irritation. Dyspnoea which accompanies many exhausting diseases becomes marked rather than the dys- pnoea produced by severe local pulmonary disease. Death takes place by the various modes which we meet with in other exhausting diseases, chiefly by syncope. These are the symptoms of Scroey as ordinarily met with in an uncomplicated form. But of course from the conditions in which it arises we may naturally ex
pect to find mingled with them the symptoms of other diseases arising under the same circumstances, and accordingly we find all writers on epidemics of scurvy agree in describing it as often complicated with dysentery, intermittent fever, and various malarious diseases. Inflammations of the pleura, bronchia, or pulmonary tissue may also occur, and in these cases the primary malady tends to impress upon the exudation products a hemorrhagic character.

The first symptom appears found in scurvy, though numerous are not varied, they are those which might be expected from the character of the disease and consist of hemorrhagic effusions into different organs. Besides the sites which have been indicated these effusions are often found beneath the peritoneum of the bones. In some cases they are found to consist almost entirely of fibrinous matter, but in these it
is probably due to absorption of the other constituents of the blood. All the organs of the body exhibit an anemic appearance; the spleen is softened and more rarely enlarged, but not more often than in the great majority of blood diseases. Edema is often met with in dependent parts. The blood is described by Dr. Budd as thin, watery, and deficient in red corpuscles, and that which is diffused into the tissues is variously altered in its colour and other properties. Good analyses of the blood are wanting, but in that which has been made by Mr. Buck, the water, albumen, albumen, and salts were increased, while the solid constituents and blood corpuscles were notably decreased.

The causes of leucy have now been pretty well made out, although for a long time the opinions and evidence on the subject were very conflicting. The chief circumstances which
were formerly thought to give rise to it were living on food that has become old and musty, such as badly prepared meat, living in close unwholesome places, especially when the ventilation is bad and when there is much exposure to moisture, want of cleanliness, the winter season, or the cold northern climate, and the use of salt provisions. An attentive consideration of these supposed causes will show, that while there are many facts, which, looked at separately, would go to counterbalance each, but which, when taken in the aggregate, tend to show that there must be some other genuine cause more reconcilable with the whole of them. That the disease should have been attributed to the use of impure food and drinks, is not to be wondered at when we consider how great have been its ravages in many ships so supplied; and as formerly voyages were much longer than at present,
and therefore the provisions were likely to spoil, it was natural that when a disease, in which the blood was so manifestly impoverished, broke out among their crew, such an obvious source of disease should be regarded as the cause. All investigation however goes to prove that in multitudes of cases when scurvy abounds there may be no impurities of the provisions, as the case of our Russian Army, where an epidemic began to show itself and yet among all their sufferings, impure or putrid food never took a part. On the other hand it will scarcely be denied that numerous instances numbers of human beings have been fed upon the very worst of provisions without a trace of scurvy appearing.

The influence of impure air and ventilation is another circumstance the reputation of scurvy to which has arisen in a similar manner.
and very often in the same cases, but it is liable to exactly the same objections. If this were truly a cause of scurvy, why do we not have evidences of it in the filthy lanes and closes of our own city? And again to refer to our Cossack army, surely no one will assert that they were living in an over-congested atmosphere.

The influence of dampness might here come into play, but I am not aware that lumber has ever been considered very prevalent in such situations as the seas of Lincolnshire, where the diseases arising from the dampness of atmosphere and ground are very common.

The influence of cold climates and of the winter season was often mentioned by the older writers, but this is because of such frequent occurrence that very few now would think of imputing scurvy to it. It has been said that
Scurvy is more abundant among Northern nations and in the winter months, and this is no doubt true; but we do not find that these influences are anything like constantly accompanied by scurvy, and we shall find that it is just in these places and times where, what we consider as the true cause, is most commonly met with, and that the influence of remedies can be brought to bear on the disease totally irrespectively of any such agency.

The use of salt provisions would appear at first sight to be much more indicatively the cause of scurvy than any of the preceding. It almost invariably occurs in ships upon long voyages or in other situations, such as time of our early Colonies, where salt provisions alone could be obtained for greater part of the year, seemed to point almost positively
to these as the causes. A certain number of men are placed for some months in such situations that they can attain nothing but salted provisions, and after a certain lapse of time it could absolutely be predicted that scurvy would break out amongst them. Let them be restored to land or elsewhere where ordinary food can be obtained, and the arrestment of the disease can as certainly be predicted. This looks very like cause and effect, but again the same mode of reasoning comes in, and it is found that the cause may be absent and the effect present, the effect absent and the cause present. Instances could easily be adduced in proof of this, such as the case of a lady mentioned by Dr. Wood of Philadelphia, who was attacked by scurvy while living exclusively on barley, or the case of the Reith Penitentiary mentioned by Dr. Chris-
We know also that crew and a-days can live for any length of time upon salt provisions, when proper means are taken, without any scurvy appearing among them.

With regard to all the above-mentioned causes then, the same objections hold good, and we are led to the conclusion that though it is very liable to occur under these circumstances they can only be looked upon as circumstances, not or at most as faintly predisposing influences.

Backstrom, as far as I am aware, was the first clearly to make out, that the disease is in reality owing to the want of fresh succulent vegetables, but it was by Dr. Buddel, in his admirable work on the subject that it was first really impressed upon the belief of the profession. The process of reasoning by which this is made out is very
simple, for it can be shown that in each and all the circumstances mentioned above, the want of fresh vegetables is likely to occur. When men are upon long voyages this is almost necessarily the case, as it is likewise in distant towns where communication from without is cut off, or new colonies where there has been time to raise them, or occasionally in very cold climates, or in the Indian Ocean, or in jails where provisions are meted out not according to the taste of the individual but by weight and measure. But not only is it shown that when scurvy is met with succulent vegetables are wanting, but also that often the disease has appeared when there are supplied it ceases. It is scarcely necessary to give instances of this now-days for it is a fact that has become perfectly well known to every Common Reason, and which has impressed
Itself upon all our public destines. I need only refer you to the graphic description found in the works of Dr. Duddell and elsewhere in which sufferers to the very last extreme have become convalescent in an inconceivably short space of time from the use of a few lettuces or cabbages. It is well known that in Ireland and some parts of Scotland, Scurvy takes out to a considerable extent after the failure of the potato crop and the consequent deprivation of the labouring classes of the greater part of these vegetable succulent food, and that since that period, it has again gradually disappeared.

The only fact upon which I am aware, which militates against this view of the cause of scurvy in the case of the Perth Penitentiary mentioned by Dr. Christian, when after careful investigation, he could discover no other cause than the stoppage
of a supply of milk. The case is
the more remarkable as numerous
observations since have tended to
show that the presence or absence
of milk has no effect either in the
production or in the prevention of the
disease. I cannot help thinking that
there must have been some circum-
stance overlooked, one of our lecturers
here on the Practice of Physic is
in the habit of remarking that
he would have thought looked
into the breath, pet.

The absence of fresh succulent
vegetables seems to be distinctly
understood to be the true cause
of scurvy and of any of the other
so-called causes really are such
it must be in very rare and ex-
ceptional cases. I can perfectly
well believe however, that they may
all act in the same way, as any
other depressor. Cause may do, by
clowering the vitality of the system
and thus rendering it more avail-
able to attack. For it is a matter of notoriety that the feeble or dissipated or those suffering from exhausting diseases are generally first attacked although no amount of strength and energy is a perfect safeguard.

Although the cause then of fever seems to be so clearly made out in the Modus Operandi of its action on the system, or in its Pathology, by no means is clearly understood. Indeed although positive assertions and statements abound upon the subject as they do upon all subjects which are very obscure, I am afraid that we are very much in the dark. If one thing there appears to be no doubt, that the cholerous influence exerts itself mainly upon the blood, and that of these ten diseases where a numerical pathology holds good this is one. In specie of fever would almost suffice.
to prove this. The new, watery blood is so evidently abnormal, that it hardly needs the aid of Chemistry to prove it, and I am afraid that Chemistry has not gone very far to show what is the nature of the Cessen. I mentioned above that the analyses of the blood which has been made are not satisfactory and tends chiefly to show that there is an increase in the watery with decrease in the solid constituents including the blood corpuscles. I should have accepted however some recent analysis which have been made by Dr. Gardow & Dr. Aldridge. The former seems according to his own showing to have proved that the blood is deficient in Potash, and that the Antituberculous remedies owe their action to the presence of that substance, but though the opinion of such an eminent Analyst as Dr. Gardow is deserving...
of very great weight, still there are many things that seem totally opposed to his views, such as the fact, that the disease is perfectly curable by means of substances which do not contain any potash such as Citric Acid, and that the salts of potash have been often in known to fail in having any effect upon the disease, while other remedies cure it readily. Such facts are mentioned by Dr. Lind, Dr. Wood and others. One would think also if Dr. Crawford's views were correct as regards treatment that sailors should be peculiarly exempt from scurvy, owing to the large amount of citrals of potash, which they consume in their salted provisions. Dr. Aldridge maintains that the disease is owing to the absence of phosphores, sulphur, and some alkaline salts from the blood. I cannot say how much belief is due to this analysis, but I should fancy that the same fact of the curability of the
disease by Citric acid and the like causes his view as much as against that of Dr. Garrod, that the absence of the potash or other alkalies not be rather an effect than a cause of the disease, and due to the absence of some acid with which it may combine? I cannot say how far this theory be correct or whether there may be any truth in it at all, but if there be, it reconciles the undoubted curability of the disease by the vegetable acids with Dr. Garrod's statement of the absence of potash, which I should think must be almost equally inestimable.

The whole pathology of the disease then, as far as we can at present seem to consist in this; that the patient being deprived of a proper amount of succulent vegetable matter the blood becomes impoverished, and prostration of the system with a marked hemorrhagic tendency follows; that the precise mode of impoverishment of the
Blood is not yet fully made out, but
that the weight of testimony tends
to show it to be deficient in potash,
while it is absolutely certain that
without the administration of potash,
and by the action of the other remedies
the blood will recover its true char-
acter and the patient fully recover.

We come now lastly to speak of
the treatment. After what we have
said of the cause of the disease,
the treatment seems abundantly
plain, namely to supply the
absent constituents of the food.
The treatment may be either purely
toxic or curative, and if the former
has been properly carried out, there
will be no need for the latter. The
whole plan consists in supplying
to all cases of ships, or others who may
be similarly situated, a proper supply
of those constituents of the food which
come to be called antiscorbutic. It
has been found by experience that
the best best substances adapted
for this purpose, are the orange, lime, or other fruits of this species, which contain a large quantity of Citric Acid; and it has now become the custom in the British Army to supply to each man an ounce of Lemon Juice per day, and merchant ships are very properly obliged by law to carry the same substance and distribute it to their crews. Other acid fruits have been found to have an almost equally good effect, and cider is a good deal used in some of our maritime hospitals. Dr Trotter states that Lord Bridport's fleet was cured in 1795 by unripe apples. But the usual succulent vegetables are no less serviceable when they can be obtained, such as the lettuce, the Cabbage, the Turnip, and the Potato; potatoes are now always added to prison dietaries, and it is usually eradicated Scurvy from the Militia Penitentiary by their use. He states that from three to six pounds should be allowed for each man per week. I mentioned above that when the potato failed in this country in
1847. the disease appeared to a large extent, and that it has now again almost entirely disappeared as the plant has nearly recovered from the disease. The products of the different pies are very useful in the countries where they are to be obtained in large quantities, and we owe the preservation of some of our early colonies in America to their use. The Indians use them at the present day. Many kinds of beer are highly antiseptic, such as the spiced beer, and it is probable from the greater use of these in Northern Climates, that scurvy is not more common among the English.

Many other substances might be named, but as they are all of an analogous kind to the above, it would serve no good purpose. When none of these can be obtained, the pure Citric Acid may be used. Although it has been stated by Dr. Christian not to have any anti-scorbutic action, but this seems to be rather an account of his views that the disease is owing to the want of vegetable albumen...
or Caustic to the Blood; but this view is not
come out by others. Dr. Brook states that
the Citic Acid is efficacious, though
perhaps less so than the fresh Lemon Juice,
and others confirm his views on the subject.
The use of potash would be useful,
if Dr. Garrod's views be correct, but
when we have such certain means at
our disposal, we shall hardly be in-
clined to desert them for a new theory.
The curative means do not differ
in the slightest degree from the prophylactic.
When a patient is once attacked with
typhus, the sooner he can be brought under
the influence of the above mentioned
remedies the better, and the only point to be
guarded against is that his strength
be not allowed to be too much allowed
exhausted. In such cases a little wine
along with abundant supplies of lemonade,
Lemon Juice, and green vegetables will
suffice to restore the most severe cases
in an incredibly short space of time.
Local treatment is not necessary as the
pustule will disappear of itself,
and the oblongul ulcers above mentioned
though unmanageable as long as the disease
you on, resume a healthy character when
it is checked, and become amenable
to ordinary treatment. I have thus slightly
sketched the symptoms, pathology and treat-
ment of Syphilis.

George Williamson