On Syphilization.

by

David James Simpson.
There are few or no diseases, in the attempted cure of which so many different medicines have been employed, as in that of constitutional syphilis. From its first appearance in Europe till now, numerous endeavours have been made to discover some drug, which would prove a specific for this formidable malady.

After we have ransacked the domains of medicine, and almost exhausted the Pharmacopoeia in vain, the sister science of surgery has placed at our disposal a simple operation, by the use of which the disease may with certainty be cured.
This operation, which consists of repeated inoculations of chancred upon the bodies of persons labouring under constitutional syphilis, has been named by its discoverer Syphilisation. Without further delay I shall at once proceed with my subject, and shall treat it in the following manner:

Firstly, I shall describe its discovery.
Secondly, I shall describe the operation itself, enlarging upon it slightly and touching upon the question of the Unity or duality of the syphilitic virus.
Thirdly, I shall consider the different theories which have been propounded to account for the way in which this remedy effects a cure, and lastly, I shall compare it with the other modes of treatment now in vogue.
This remedy had only come into use within the last 13 years, and is proposed as a perfect and certain cure of constitutional syphilis. It is a subject on which I cannot speak from personal experience, never having seen the remedy in operation, and only having seen and conversed with two patients, who had undergone the treatment. I may be allowed to premise that the term syphilization, applied to this remedy by its discoverer, was not a particularly good one, he having supposed it to be analogous to vaccination. In regard to the word "immunity," which is employed in the following pages, it was at first supposed that when complete syphilization had been obtained, the patient was perfectly secure from a second attack of syphilis. But instead of this, when the word "immunity" is employed, it simply means a condition of the system, which, in relation to the operation of the syphilitic poison, is altogether different from that which existed.
before syphilization was begun, and that the body is brought into a new and healthier condition by these inoculations.

That syphilis was a disease to which the lower animals were liable, was fully believed to be the case in the beginning of the present century, either as the result of excessive Coition, or of the employment of stimulating medicines given in order to renew their lost desire. This, however, was found to be a rare occurrence, and was especially observed in the case of Stallions.

A few years later M. Ricord laid it down as one of his dogmas that the inferior animals could not have syphilis. One of his own pupils, M. Angios-Jerne, in the year 1844, made several experiments for the purpose of inoculating the syphilitic virus upon apes, cats, and other animals. After several unsuccessful attempts, he was at length able to prove that he had produced chancres on the animals in question, but after inoculating them repeatedly...
he at last found that he had produced in them immunity from the syphilitic virus, i.e., he had arrived at a point, when he could no longer produce chancre, the only result being abortive pustules; in fact, the animals were incapable of being inoculated with the syphilitic virus. To this process he gave the name of syphilitization.

The plan he pursued was to inoculate the animals on a part from which it would be impossible for them to lick off the virus. For this reason, he chose the part behind the ear. To prove, however, that the sores produced were really chancreous, four inoculations were made with the matter from these sores on the arms of M. De Welz, who allowed the experiments to be made, and with the result that characteristic sores were produced. These experiments were further confirmed by M. Diday of Lyons, who inoculated matter from a soft chancre behind the ear of a cat, from thence transferred the virus
te its other ear, and finally inoculated his own penis with matter from the last sore. This gave rise to a phage-
demic chancre, and bebo, which last re-
mained open for four months, and fi-
nally cicatrized, but no constitutional
symptoms have appeared since. In 1830
Augias Jarrene sent a memoire of his
observations to the Academie des Sciences.

But this is not the earliest
mention of syphilization, for Dr. Graves
in one of his Clinical Lectures published
in the London Medical Gazette for 1838-9
Vol. 1 page 677, quotes from Dr. Fricke of
Hambridge the following remarkable pass-
age from his surgical annales for 1828.

"The contagion of syphilis
seems to possess a certain degree of pro-
tective power against the same disease.
Thus if an infected person be inoculated
with the virus, he is much less likely
to take the disease than a healthy un-
infected person. In this, however, the
local and general condition of the system,
which occurs during coitus, and strongly
disposes to the reception of contagion, plays an important part. If, however, a person affected with chancre were inoculated with matter of that chancre on a fresh spot, and from this on a third, and so on, it will be found that the process can only be repeated only a few times with success. The individual becomes, as it were, habituated to the virus and less capable of its influence." These remarks had, however, attracted very little notice when Auguste Taine announced his discovery in 1830.

M. Spurini of Turin, supposing that this discovery might be made use of in the cure of syphilis, instituted several experiments on prostitutes under his charge in the Syphilocome or Venereal Hospital at Turin. He communicated his views on the subject to the Medico-Chirurgical Academy of Turin in 1831.

Two other Italian physicians, Camberini at Bologna, and Gulliego at Florence, had instituted experiments on the remedy, and with great success.
Dr. William Boeck, Professor of Medicine at the University of Christiania, happening to be in Italy about this time, heard of Sperino's cases, and, believing that all means hitherto employed in the treatment of Syphilis were uncertain, determined on giving the new remedy a fair trial. On his return home to Christiania, he found his Colleagues as to whether any objections could be offered to his making trial of the new method, provided he did so upon individuals labouring under constitutional syphilis; at which he could not be accused of introducing into their systems a disease which did not already exist there. Upon their agreeing that it was desirable that the experiment should be made, Dr. Boeck immediately set about procuring some insusceptible virus, but he was unable to obtain any till October 1832. From that time till now he has treated upwards of 350 cases with great success, 250 being persons who had not been treated before at all, and upwards
of 100 having been previously treated with mercury.

What is syphilization? Syphilization is the inoculation on the sides, arms, and thighs of a patient labouring under constitutional syphilis, of matter from a primary sore on the person under treatment, or from a chancre on some other person; and after the lapse of a day or two, again inoculating either the matter from the primary chancre, or that from the artificial chancre, and continuing this treatment every two or three days, till eventually the chancre becomes abortive. You then try all the different specimens of matter you can procure, and if you succeed in forming chancre, you go on in the same way till you arrive at a point, when you cannot produce chancre by the inoculation of any specimen of matter you can possibly obtain. This state is not to be attained by the inoculation of one specimen of matter only, but by that of every different specimen you can possibly...
obtain. You may exhaust one specimen by inoculating it, till you obtain nothing but abortive pustules with it; yet you find that on introducing matter from another individual, you obtain marked and decided chanceae; and that after you have exhausted this matter, you may still obtain results with virus from a third or fourth individual; so you must not consider a patient syphilitized till you have exhausted all the different specimens of virus you have at command.

The matter from the earlier artificial pustules is more powerful in its operation than that taken from those formed later by the matter from the earlier ones. Also the matter taken from a pustule on a patient, whose cure is approaching completion, if inoculated, produces very trifling pustules, almost abortive; but if matter from the same chanceae be hand planted to a patient labouring under constitutional syphilis, and on whom syphilization has not yet been commenced, and then matter from the chanceae formed on
the last patient be again inoculated upon the first, a very large chance will be the result. Further, artificial chancre is stronger on some people than on others, although the matter be originally taken from the same person. Another curious circumstance occur in some cases, viz: that matter may operate powerfully on one person, and yet if that matter be transplanted to another person, it may operate weakly at first, and only acquire strength after several inoculations of the matter of the first transplanted chancre.

The general rule is that the first inoculations produce the largest chancre, but this rule is not without exceptions.

Boeck always commences his inoculations on the sides or arms, because he finds that the matter has more effect when inoculated on the thighs, and that if he begins with them the chancre are apt to take on a pustular aspect, so he waits till the pustules on the
arms and sides prove abortive, and then he commenced inoculations on the thigh, where the chancre go through several generations after having proved abortive elsewhere.

He found that after he was unable to produce any effect with pus from chancrees contracted in Christiania, he obtained successful results with matter from Stockholm, still more so with matter from Hamburg, and the most powerful action with matter from London.

It is now pretty generally believed that chancrees are all produced from the same virus. The differences in the form of chancrees are owing to variations in the intensity of the virus, and possibly to dissimilarity of the constitutions of the affected persons.

Professor Bock in the course of his investigations on the subject of syphilization has arrived at the following result.

The soft and the hard chancrees are produced from the same
virus. It depends upon the difference of intensity only of the virus whether a soft or a hard chancre be produced. If the virus be very intense a soft chancre is produced, the very intensity of the virus giving rise to too much inflammation as to prevent absorption. The hard chancre on the contrary is the product of a weaker virus, in which case the inflammation developed is not so great as to lay any impediment in the way of absorption into the system taking place. Very intense virus gives rise to a standard soft chancre; less intense matter on the contrary giving rise to a standard hard or indurated chancre. Virus intermediate in intensity between that producing a standard soft and that producing a standard hard chancre produces the intermediate forms of chancre. With all our experience, in our prognostics as to whether these last mentioned intermediate forms will or will not give rise to constitutional syphilis, we must always be in
doubt.

The following result is often observed in syphilitizing a patient, and to my mind indubitably proves the unity of the virus.

Whenever we inoculate with matter taken from a chancre suppurring profusely, such inoculation is almost certain to succeed. Some of the ulcers, generally a small proportion, will begin to become indurated at the base. As the induration increases the suppuration diminishes, the secretion from the surface of the ulcer becomes gradually more serous, and it is almost impossible to provoke sores by inoculation. Finally, inoculation will fail in toto. When such a result is arrived at, cover the chancre with lint, and at the end of about 24 hours, you will find a copious, thick, and purulent secretion re-established; the inoculation of which will in most cases give positive results, even when the induration is excessive.
This also shows us that the syphilitic virus may decrease in intensity for starting with matter which gave positive results, we find that as we proceed with our inoculation, the matter becomes less powerful, as is demonstrated by the ulcers becoming indurated at the base, and failing at last to give any result. But in some cases the strength of the syphilitic matter diminishes, so in others an increase of virulence is remarked.

Inoculation with matter from pustules which are already undergoing the healing process, only produces small pustules, which disappear in a short time. But if you persevere in your inoculations, you will be rewarded by producing larger pustules in the ensuing generations.

I will quote one example in support of this statement.

A man presented himself at the Christiania Hospital with commencing constitutional syphilis, and with an in-
duraed chancrue, not entirely cicatri.ized. He was inoculated with matter from his own chancer. Very insignificant, almost abortive, pustules resulted, but by continuing the inoculation every 3 days from the preceeding pustules, in the sixth generation small ulcers were at length obtained. From this moment perfectly characteristic chanceres were developed during several succeeding generations.

The results of the first five cases treated by Professor Boeeck by Syphilization distinctly prove that the virus may increase in intensity.

Two syphilitic patients were inoculated with matter from a soft chancer. The duration of treatment in both cases exceeded six months before complete immunity was obtained. During the treatment 222 chanceres were produced on the one, and 290 on the other. After they had been subjected to syphilization for four months, matter was transplanted from them to two other patients laboring under constitutional syphilis. In-
munich was obtained in the last two at the end of three months, one having had 133 chancrees, the other 152. A fifth patient was inoculated with matter from the first two after they had been under treatment for five months. Immunity was obtained at the end of two months, 71 chancrees only having been necessary.

At a later period when he had a great many patients under his care at one time undergoing syphilization, he found the curative property of the matter very weak, if he was unable to obtain any fresh matter, more especially if he had no new subject to treat. Such a state of things had occurred more than once during his practice.

A great distinction must be made, in considering the effects of syphilization, between patients who have been previously treated with mercury, and those who have not. It is in cases where no mercury had been previously employed, that syphilization is seen to
best advantage. As therefore, typhilitization is shown to best advantage in those cases where mercury has not been employed previously, we will in the first place consider the results obtained in such cases, and then go on to the consideration of those cases which have been complicated by having been previously treated by mercury.

In regard to cases not previously treated by mercury, after having continued the inoculation for three or four weeks, a great change for the better is observed in the patient's health. If the appetite was very poor previous to the treatment, it now returns in full vigour; in fact, the patients are perfectly ravenous. There is no restriction made as to diet, but they are allowed as much wholesome food as they please, care being taken to avoid excess. Wine is not prohibited in moderate quantity, with the exception of the sour wines. Spirits must be carefully avoided. If the patients were previously weak and emaciated, they now gain strength and flesh. Three or four months are
however usually required till immunity is established. If the skin of the patient is not occupied to any great extent by syphilitic symptomatological eruptions, the treatment is greatly simplified in its application. The inoculations produce sore from the very first, and their effect on the organism is much more regular. It is much more difficult, however, to inoculate in the less common cases where the skin is almost entirely occupied by papular eruptions. The first series of inoculations go on as usual for a short time, but when new matter is employed, it makes very little impression. Dr. Boeck says in regard to such cases: "Under these circumstances, we must wait, if I may so express myself, till the first series has produced its effect upon the organism, and the eruption consequently has begun to disappear; then we obtain fresh inoculations have better effect, and the disease diminished accordingly." As soon as the original symptoms begin to disappear under the influence of syphilization, new
once begin to chew themselves, such as sore
of the mucous membrane of the mouth,
a fresh eruption, or even very severe ulcers.
But these require no treatment whatever.
You have only to continue the process of
lyophilization, and in a very short time
they all disappear. Never in one single
instance have bad results been known to
follow. Even in very severe cases of ulcers
the patient is allowed to go about in a
light room without any screen for the
eyes. The inflammation ceased with the
continuance of the treatment. The eye
ball regained its mobility, and the patient's
vision again became perfectly sound.

Deducing from this Dr. Boeck
states it as his firm conviction that "In
" no disease have we a more certain method
" of cure:"

With regard to those who
had previously been treated with mercury,
the circumstances are not the same. Dr.
Boeck gives the following as the results
of the treatment of upwards of a hundred
such cases.
"1st. The local effect of the inoculations is not so uniform as when mercury has not been used; it may even cease entirely after some time, and not again till a few doses of iodine have been given.

"2nd. The effect upon the syphilitic symptoms present also is not so uniform.

"3rd. Syphilization does not seem to have any or at least any considerable influence upon affections of the osseous tissues and derangements of the nervous system occurring after syphilis.

"4th. One is often obliged to combine the use of iodine with syphilization in order to obtain a complete cure.

"5th. Relapses are not unfrequent after syphilization in individuals previously mercurialized.

"6th. These relapses, however, will never have a form worse than that which existed before the syphilization; they will always, so to speak, be a fraction of the earlier affection.

"7th. The state of health always improves
"during the syphilization."

It is curious to trace the opposition, which every great discovery in medicine and surgery meets with from well-informed people. In fact, unless a discovery is opposed, one may almost conclude that it is a failure, not worth crying down; but a violent opposition, which cannot hold its own, is often of unmeasurable advantage in furthering the very theory it was intended to over turn. Nor is syphilization an exception to the general rule; on the contrary, it has been attacked strenuously since its very infancy, and one must be struck with the similarity between the terms used to overthrow it, and those formerly employed to denounce the somewhat analogous practice of vaccination. At a specimen of the language in which the practice is reviled, I will quote a passage from a late work on Surgery by Professor Gross of Philadelphia. Professor Gross, after summarily disposing of the subject of syphilization in the short space of
one page, finishes off with the following remark:

"The practice it, to say the least, exceedingly pityful and disgusting, a cir-
stance which, added to the tediousness of the cure, will probably serve as a
bar to its general adoption."

Now we must bear in mind that although, at first, the ulcers formed are
very large and angry, yet as the treatment progresses and the symptoms
disappear, these ulcers heal up, and those subsequently formed are by no means
to large, nor to long of healing. Many young men, as clerks in offices in
Christiansa, who are affected with syphilis, and are under Dr. Boeck's treatement, are
only detained from business for a few
minutes every third day to have new
incisions made. When they remove their clothes for the purpose of being
inculated, you may perceive one or
two ulcers on their sides, thighs, or arms,
but this is the only sign, for on their
dressing again, you could not discover
any difference between them and the healthiest man you could single out anywhere.

Many who opposed the employment of syphilization on its first introduction, have now given in their adhesion to the practice, being convinced of its efficacy and certainty as a means of cure.

Several physicians have lent the results of their cases to Dr. Roeeck, which he published in a pamphlet, entitled "De la Syphilization, état actuel et statistique." Those cases amount in all to 94, 15 of them being children, and among them all, only 2 relapses occurred; one of them being cured by a second course of syphilization; the other not having come back to the same physician, but having been treated in the usual way, the result is unknown. Professor Roeeck's own cases now amount to 250 persons who had not been treated before with mercury, besides upwards of 100 who had. The number of relapses
among the 344 cases of non-mercurialized patients amount in all to 75, some of whom have simply undergone a second short course of typhlization; others, this second course accompanied by very small doses of Iodide of Potassium, and one or two have been treated in the usual way by other physicians.

From the beginning of the year 1860 to the end of the year 1861, Professor Iacobi says, that he has never had a relapse, and this he accounts for— and it is a very important fact— by stating that during that period he had confined himself entirely to inoculating with matter taken from indurated chancres. This is a startling theory, entirely upsetting the dogma of M. Ricord, that the matter of the simple chancre only is capable of being inoculated. Dr. Ricord states in a letter, which I received from him on the subject of typhlization, that indurated chancres "not only often give inoculable matter, but it is very rarely that they do not give inoculable matter." He
states that after having made some experiments on the subject, he had come to the conclusion, that two out of five inoculated chancre were inoculable, but that his resident physician Mr. Videnka's had successfully demonstrated that almost every one is inoculable.

Syphilization may be practiced in one of two ways. You may either syphilize with matter from a soft chancre or with matter from a hard chancre. What I mean is, that you may perform syphilization on a patient, employing from just to last, matter obtained from soft chancre only. Suppose a patient comes to you labouring under constitutional syphilis, and you mean to put him through a course of syphilization, employing matter obtained from soft chancre only, you would commence your inoculations with matter from a soft chancre. If pustules resulted from this first inoculation, on the third day you would re-inoculate the patient with matter from those pustules, and
so on until continued re-inoculations failed to give a positive result. You would commence again with fresh matter from a soft chance, and continue in this way until no matter which you could possibly procure would produce pustules.

On the other hand the same process may be gone through, and a like happy result be obtained, by restricting yourself to the employment of matter obtained from hard chancers.

If you inoculate with very powerful matter, which will pass through a great many generations before it is worked out, the treatment is longer in duration, and the symptoms are longer in disappearing than if you employed matter which was only capable of passing through a few generations.

It has always been found that that matter which appears most virulent at first, and is longest capable of being re-inoculated, is matter from a soft chance. Matter from a hard chance has, on the contrary, been proved
quite incapable of being transmitted through nearly so many generations as that from the soft; in fact, the relation of the inoccubility of matter from the hard and from the soft chance is as 1 to 2. If the mean number of generations through which matter from the hard chance allows itself to be transmitted is 25, that of matter from a soft chance is 50.

By inoculating with matter from hard chances only, Professor Boeck has found that he cures his patients in less time, and with the production of fewer chances, than if he used matter from soft chances.

This undeniable fact is worthy of more attention than at first sight we might think necessary to devote to it. Not only is the duration of treatment greatly shortened by inoculation with matter from hard chances only, but the resulting cure is, so to speak, much more perfect, and the chances of a subsequent relapse greatly diminished. The shortening of the duration of treat.
ment is easily accounted for. The matter of a soft chancre being much more intense than that of a hard chancre, the inflammation consequent upon the inoculation of such matter is so great as to prevent absorption of the urine during the first two or three inoculations. This occurs each time matter from a fresh chancre is employed. This of itself materially increased the duration of treatment. But in addition, matter from a soft chancre is capable of being re-inoculated through twice as many generations before it is worked out, as matter from a hard chancre. Taking these two points into consideration, we see that immunity is produced in a very much shorter space of time by employing matter taken from hard chancre only.

The length of the treatment is a very commonly-advanced objection to the employment of the practice of syphilization. We see that by substituting matter from hard chancre for that from soft chancre, not only is
the cure more perfect, and the chance of relapse diminished, but the duration of treatment itself is immensely curtailed. One barrier to the introduction of syphilization is, therefore, swept away.

Dr. Danielsson of Bergen always rules matter taken from a simple chance sedulously avoiding that taken from an inoculated chance, under the conviction that the operation of syphilization is merely a depuratory one. He has made many experiments on leprous patients, under the idea that if he succeeded in inoculating syphilitic virus into the patient's system by syphilization, he would cure the patient of the leprosy at once as his system was fully saturated. His experiments, however, on this point have not been very successful, he not having succeeded in one single instance in curing the dreadful disease of leprosy by this means.

As to the way in which syphilization acts, no ultimate determination has yet been arrived at.
Jenner and Sperne both believed that its action was to be ascribed to the system absorbing and becoming saturated with the poison. In this theory Professor Boeck objected on the ground, that if the system did become saturated with the poison, the symptoms, instead of becoming better, would become worse. He himself says he can offer no theory on the subject, confessing that he does not know how it acts, but only holding that it is a great and undeniable fact, that by repeated inoculations of syphilitic pemphigus, constitutional syphilis may be cured with certainty. He is content to employ the remedy empirically. Professor Faye of Christiania asserts that the immunity obtained is only "a temporary immunity of the over-stimulated skin, and that the cure of the syphilitic symptoms was due to the depuratory action of the sores excited by excessive inoculations." He has stated that tartar emetic ointment would prove
quite as efficacious as syphilization, but experiments made have satisfactorily proved that it is by no means as efficacious as syphilization. Lindermann of Munich had used it in its cases of syphilis. He caused a series of pustules to be formed on the skin of the patient by friction with the tartar emetic ointment, and as soon as these had dried up, new ones were made in the same way. In some of the patients the results were very good; in others in a much less degree, and in others the results were completely negative. He holds that syphilization and tartar emetic ointment frictions produce the same effect, but that the syphilitic symptoms disappear much more rapidly when syphilization is employed.

Boeck having observed that constitutional syphilis was to be cured by syphilization, desired to solve the question, whether the good results obtained were not due to the great number of ulcers produced in different parts of the
body. Dr. Hjort conducted a series of experiments with tartar emetic ointment (em-plâtre stibié). 157 cases were treated in this way, the results being tolerably favorable, but by no means equal to the results obtained with syphilization. The average duration of treatment was about 176 days, and the average proportion of relapses about 20 per cent.

Some have supposed that the introduction of the syphilitic matter into the system during a course of syphilization, lowers on the stages of the disease, and thus brings them sooner to a termination. The following case which came under my notice about a month ago completely negates this theory.

A gentleman had been laboring under constitutional syphilis for six years. He had undergone various kinds of treatment in London, Edinburgh, and on the Continent, but the symptoms instead of getting better got gradually worse. Last summer the
symptoms threatened his life, and he himself despaired of getting better. Two distant relations of his had died of syphilis. At last he was advised to go to Christiania, and place himself under the care of Professor Rocke. When he set off, he had syphilitic ulcers of the tibia, caries and ulcer of one clavicle, had lost some bones of the nose, and his palate was perforated. The ulcers seemed to defy treatment. He had also a swelling of the frontal bone, indicating the commencement of a corona venerea. When he arrived in Christiania, he was so weak as to be scarcely able to walk. After he had been under treatment for a month, he felt, as he told me, that he was better and stronger than he had been for years. And the swelling of the frontal bone, instead of breaking out into an ulcer, as it would have done had the introduction of the syphilitic matter burned on the stage of the disease, subsided altogether, and never troubled.
the patient again. In three months and a half he returned to this country completely cured; and the cure was the more peculiar in this case, because the patient was also laboring under an enormously enlarged liver, which he had acquired in China, when an officer in one of Her Majesty's Regiments.

Another case, a gentleman from Silesia, was advised to go to Dr. Roebuck about two years ago. The constitutional symptoms in his case were very severe. He had been under treatment for a long time in this country and was gradually getting worse. He had entirely lost the sense of taste, and could only articulate with difficulty from the loss of his palate by ulcerations. Having proceeded to Christiania, he put himself under Roebuck's care. After four months' treatment by syphilisation he returned home perfectly well, and has continued to ever since. He told me that it was only for
the first fortnight that the inoculations produced any pain. He praised the treatment very highly, and stated that he placed implicit faith in it, as indeed all seem to do, who have ever been subjected to it.

It has been said that the cure by syphilization is the result of a change of climate merely. But it is self-evident that this is a wrong theory, for 99 per cent of Dr. Boeck's cases have been cured in their own country.

Dr. Danielssen has enumerated his belief that the action of syphilization in curing constitutional syphilis is purely depuratory. According to this theory of his, the purely depuratory action of sores produced by frictions with tartar emetic ointment should be identical with the purely depuratory action of syphilization. For Danielssen is an upholder of the doctrine of the duality of the syphilitic poison, and believes that the only effect of inoculating with matter from a soft chancre is to
produce a local sore-in other words, a suppurating surface. Now in practising syphilization he only makes use of matter obtained from soft chancre. Arguing from this, I think the chain of reasoning is complete, and proves that, according to Danielsson’s views, syphilization and tartarization must be identical in their results. I will merely content myself here by saying that the results of treatment by tartarization are far from being so favorable as the results of treatment by syphilization; but when comparing the different methods of treatment a little further on, I will discuss the matter at length.

I will now proceed to state what I consider the best explanation of the action of syphilization.

To obtain an insight into the cure of any disease whatever, we must direct our attention to the study of nature’s method when the effect a spontaneous cure. For careful inquiry Dr. Danielsson has observed that when syphilis has pro-
ceeding the length of the tertiary stage, nature sometimes effects a cure by the production of deep ulcers. This fact he has adduced as a proof of the purely depuratory action of syphilization. But he seems to have overlooked the fact that these ulcers were not simple suppurating surfaces, as he supposed the ones produced by his inoculations to be, but large syphilitic ulcers, the result of constitutional syphilis. From this I argue that the disease is removed from the system when syphilization is employed, by means of what we may denominate specific depuration.

This may perchance be the plan which nature adopts in order to get rid of a chancre occasioned by very powerful matter, which gives rise to very intense inflammation, i.e. a soft chancre. The matter of such a chancre when absorbed by the neighbouring lymphatics is usually sufficiently strong to produce a suppurating bubo in one or other groin. It may be by depurative suppuration by
this syphilitic ulcer that nature eliminates the poison. I am of opinion that we have sufficient grounds for stating, that in the process of syphilization, a cure is effected by denudation by means of specific ulcers.

Passing on from the theories started to account for the mode in which syphilization affects a cure, we will now proceed to consider the results obtained by the employment of this remedy. We will also compare them with the results obtained by the employment of other means for the cure of constitutional syphilis. The following tables are all taken from the large volume of researches upon syphilis drawn up from the archives of the Christiania Hospital by Professor Becck. These archives are reports of all the cases of syphilis treated in the Hospital from the year 1825 till the year 1856.

The number of patients treated by each remedy is given, and the entire
number of days required for treatment; and an average is struck to show the mean duration of treatment in each case. Next the number of relapses is stated, and the percentage given. Professor Boeck has given separately the results obtained by the employment of the different preparations of mercury, and likewise has matted them into one simply as cases treated by mercury. This last table I have extracted; as also a table of the effects produced by Iodide of Potassium.

In contrast to these two tables, I have quoted one containing his experience of syphilization up to the year 1862, and likewise one showing what can be effected by the employment of tartar emetic ointment, being the result of some experiments instituted by Professor Boeck in order to compare syphilization and tartar emetic ointment.
Table I.

Results of treatment by mercury from 1825 to 1856.

3200 persons have been treated by mercury in some form or other. The duration of treatment in these 3200 cases amounted to 401,969 days, giving an average of about 125 days for the treatment of each case.

Of these 3200 cases, 1036 had a relapse, which gives an average of about 32 per cent.

108 of the patients died. 29 of the 108 died when under treatment for a relapse.
Table 2.

Results of treatment by Iodide of Potassium from 1838 when it was first generally adopted in the Christiania Hospital till 1856.

186 persons have been treated by Iodide of Potassium. The duration of treatment in these 186 cases amounted to 10,904 days, giving an average of about 108 days for the treatment of each case.

Of these 186 cases 40 had a relapse which gives an average of about 21 per cent.

2 of the patients died whilst under treatment.
Table 3.

Results of treatment by syphilization from 1852 to 1862.

Up to the beginning of the year 1862, Professor Boeck had treated for constitutional syphilis, by the process of syphilization, 252 persons who had not previously been treated by mercury. The duration of treatment for all these 252 cases was 33,823 days, giving an average of about 134 days for the treatment of each case. In 4 of these cases, 2 of which were cases of syphilis of a malignant type, iodide of potassium was employed in conjunction with syphilization.

23 of the patients had a relapse, 20 of whom re-entered the Hospital for treatment having been treated in the town by Iodide of Potassium.

Of the 20 who re-entered the Hospital, 9 were treated by a second course of syphilization, one of whom had a
second relapse, and was again subjected to 
a course of syphilization.

I was treated by Jodide of Potas-
sum, and 10 by external remedies; the du-
ration of treatment in most of the cases 
being very short.

From this it appears that the 
average of relapses after treatment by syphi-
lation was about 9 per cent.

18 infants with hereditary syphilis, 
1 infant with acquired syphilis, and 1 woman 
of 50 died. The infant attacked by syphilis 
died of croup, and the woman of dysent-
ery.

54 individuals were syphilized 
who had formerly been treated by mer-
cury and had had a relapse. The 
duration of treatment in these 54 cases 
was 10.335 days, which gives an average 
of about 191 days for each case. In 
addition to the syphilization, Jodide of
Potassium was employed in 10 cases. 10 
of the 54 had a relapse, or about 18.5 
per cent. 7 of the 10 were syphilized 
dawn, the other 3 were treated by Jodide
of Potassium.

6 individuals were syphilized and cured, who had previously been treated by mercury without any cure whatever having been effected. The duration of the treatment in these 6 cases was 2244 days, giving an average of 374 days for each case. 2 of the 6 had a relapse, or 33\% per cent.
Table 4.

Result of treatment by sore produced by tartar emetic ointment (emplâtre stibié).

157 persons have been treated by sore produced by tartar emetic ointment (emplâtre stibié). The duration of the treatment in these 157 cases amounted to 27.994 days, giving an average of about 17.5 days for the treatment of each case.

Of these 157 cases, 31 had a relapse, which gives an average of about 20 per cent.
By looking at the tables referring to treatment by mercury and iodide of potassium, we find the iodide of potassium gives results superior in every way to those obtained by the use of mercury. The duration of treatment is on an average 17 days less. 21 per cent of the cases treated by iodide of potassium have a relapse, while with mercury the average price is 32 per cent.

My object however is not to choose between iodide of potassium and mercury, but to show the decided superiority of syphilization as a means of treatment over these two remedies on the one hand, and over tartarization on the other.

The average duration of treatment by syphilization we see to be 134 days, almost the same as that by mercury, and nearly 4 weeks longer than that by iodide of potassium. But although the treatment be a very little longer in duration, the chances of a relapse are infinitely less; an average
of 32 per cent having relapsed after treat-ment with mercury, 21 per cent with
Sodite of Potassium, and only 9 per-
cent with Syphilization. The later records
of Syphilization, however, shew even more
favorable results, Dr. Boeck having stated
in a letter he favored me with about
18 months ago, that since he had con-
fined himself to making his inocula-
tions with matter obtained from hard-
chancres, he had not had a single
relapse. But at the time that elapsed
between his giving up inoculations with
matter from soft chancres and my re-
cieving his letter was only 2 years, no
definite conclusions can be drawn from
the fact, yet I am inclined to think
that future investigations will prove
this observation to be correct in the
main.

The great triumph however
of Syphilization is not the fact, that
by its employment the chances of a
relapse are greatly diminished, although
that of itself would be sufficient to
warrant its introduction as a means of treatment, but that, whereas in some cases mercury and iodide of potassium altogether fail in effecting a cure, or even an amelioration of the symptoms, syphilization had never once failed. Even when it has been resorted to as a forlorn hope, decided success has attended its employment, and a complete cure resulted. The two cases, which I have already detailed, had both been treated by mercury and iodide of potassium without the least improvement taking place, and in despair they went to Christiania and subjected themselves to syphilization, whence they returned cured, and with their health perfectly re-established. Syphilization then never fails to cure. Mercury and iodide of potassium may fail and have failed.

But the two modes of treatment which claim our chief attention, and between which our choice lies, are syphilization and tartarization. I stated at page 37 that I would endeavour...
to prove the superiority of syphilization over tartarization when I came to compare the different modes of treating constitutional syphilis, and this I shall now attempt to do.

In practicing syphilization we arrive at a point when no syphilitic matter we can possibly procure will give a positive result when inoculated. This we designate immunity, and then, and not till then, we say that our patient is cured. But with tartarization we can never say whether we have obtained immunity or not; for we may go on ad infinitum with our tartar emetic doses, as they never decrease in their capability of being produced. Relapses occur after tartarization on an average in about 20 per cent, which is more than double the frequency with which they occur after syphilization. The duration of treatment with tartarization must of necessity be a matter of guess-work, but on an average the duration was 178 days for each case.
We have now proved the superiority of syphilization over the other methods of treatment at present employed. We have also seen that it is to be preferred to the practice of taranization, not only on account of the shorter duration of treatment when it is employed, or on account of the greatly diminished chance of relapse, but also because with taranization we have not the same series of constant symptoms as with syphilization, nor do we ever arrive at a point when we can say for certain that our patient is cured.

In regard to syphilization, one point strongly insisted upon has been the disagreeable nature of the cure. I cannot believe that there is anything revolting in the practice. It is not as if we were introducing syphilitic virus into the system of a virgin and healthy subject; for we are only producing local ulcers by means of a virus identical with that with which the system of the patient is already loaded. The
The next question that has been mooted is, whether or not it is a justifiable mode of treatment. The whole argument of this paper has been with regard to its employment as a remedy for constitutional syphilis. Employing it in this way we cannot be charged with introducing into the system of any patient a poison, which did not previously exist there.

At its first introduction, however, discredit was brought on the practice by its discoverer proposing to employ the remedy as a prophylactie, as vaccination is employed to prevent small pox. This brought down deservedly the wrath of the whole profession upon the unfortunate propounder of the scheme; and, as often happens, on account of an indiscreet proposal of the discoverer of syphilization, from the
very just the practice was pertinaciously
opposed. It was revolting to the mind
of every practitioner, for Augias-Turenne's
plan was to introduce into the systems
of little innocents the syphilitic virus.—
This proposal alone brought the practice
of syphilization into disgrace, from which
it is only now beginning to emerge in
consequence of the perseverance of Professor
Reck.

On the first introduction of
the practice it was also believed that
it would prove invaluable in treating
the primary symptoms. This idea was
liable to the same objections as the
prophylactic proposal of Augias-Turenne,
as it was impossible to tell from the
appearance and character of chancre, whether
constitutional symptoms would eventually
appear or not. Therefore the introduction
of the syphilitic virus into the constitu-
tion under these circumstances was un-
justifiable.

The chief objection urged
against the employment of syphilization
in this country is its filthiness. Now the plea of filthiness will not bear minute inspection, its bark being worse than its bite. We cannot really look on it at a filthy practice, if we bear in mind that all persons who are subjected to it are already labouring under an attack of constitutional syphilis. Such a charge might indeed be brought against it, were it employed, as was proposed by its discoverer, at a prophylactic. I am of opinion that the same fault might be found with it, were it made use of as a curative means for the primary affection. Yet the most strenuous upholders of the filthiness of the remedy are in the constant habit in the case of a patient who has contracted a chancre, and applied to them for advice, of moulcating the matter from the sore upon the thigh of their patient, in order to decide whether the individual has contracted an infecting or a non-infecting chancre. I do not however adduce this at a reason why
it should be employed to treat the primary affection, but merely to shew that many who are in the habit of inoculating their patients were syphilitic matter for the purpose of diagnosis, are better in denouncing those who inoculate their patients with syphilitic matter in order to eradicate the virus from the system. I denounce the employment of syphilization as a prophylactic measure, or as a remedy for the primary disease, for the reasons before stated, as utterly unwarrantable. The charge of filthiness cannot hold good, if it be employed as a cure for constitutional syphilis alone, and this is the only case in which I have advocated its use.

It is a great fact that syphilization will cure every case of constitutional syphilis with certainty—a pre-eminence which can be claimed for no other remedy. Why has it not been more generally adopted? Its non-adoption is chiefly due to prejudice in favor of the established modes of treatment on the part of practitioners in this country and
on the Continent. Considering all that
had been urged in its favour, surely it is
entitled to a fair and impartial trial,
instead of being summarily rejected. I
tell a fair and impartial trial, as some
physicians have published the results of
their treatment of syphilis by syphilisation,
condemning the practice. On examining
closely, however, we find that the only
analogy between their practice and syphi-
lisation is that they have inoculated
syphilitic matter. But this is all the
length they have gone. They have not
continued the treatment till immunity has
been produced, but have rested content
with merely inoculating syphilitic matter.
Some have employed mercury at the same
time. The result has been that they
have completed their treatment without
curing their patient. In consequence of
this unsuccessful result, they deem the
practice of syphilisation, ignoring the fact
that the fault lies with their utter
ignorance of the plan of treatment by
syphilisation.
I will conclude by stating the inferences that appear to me to be deductible from the facts stated in this paper.

1st. That there is only one syphilitic virus; the different forms of chancre being due to differences in the intensity of the virus. Also, that a hard may be changed into a soft chancre, and, vice versa, that a soft may be converted into a hard chancre.

2nd. That syphilization can cure constitutional syphilis.

3rd. That relapses are less frequent after syphilization than after any other treatment.

4th. That syphilization is the only remedy which never fails to cure constitutional syphilis.

5th. That the employment of syphilization as a prophylactic measure is utterly unwarranted and unjustifiable.

6th. That its employment as a remedy for the primary affection is equally unwarranted and unjustifiable.
7th. That syphilization is undoubtedly the best and surest remedy yet proposed for the treatment and cure of constitutional syphilis.

Finis.