

History and pathology of vaccination, vol.1., a critical inquiry, 1889

Dit is de titel van een lijvig boekwerk (560 bladzijden) door Edgar M. Crookshank, M.B.,
[...] *Professor of comparative pathology and bacteriology in, and fellow of, King's College,*
London.

Author of papers on the etiology of scarlet fever; anthrax in swine; tuberculosis and the public milk supply; and the history and pathology of actinomycosis; in reports of the agricultural department of the privy council, etc.
Author of a manual of bacteriology, etc. [...]

Dit boek is door de University of California Library in Los Angeles voor het laatst uitgeleend op 15 juni 1988, maar is nu via internet te lezen.

Dat betekent dat in principe iedereen die de beschikking heeft over een computer nu kennis kan nemen van de grootste dwaling in de medische geschiedenis, die al in 1889 als zodanig werd ontmaskerd, maar waarvan het praktiseren helaas nog steeds wordt voortgezet.

Net na het afronden van mijn studie naar de 'Verborgene gevaren van vaccinaties' kreeg ik dit oude boek aangereikt. Daarom besloot ik om enkele citaten uit dit boek vooraf te laten gaan aan mijn eigen werk, dat eigenlijk overbodig zou zijn geweest als men de studie van deze professor Crookshank al in 1889 serieus had genomen.

Ik citeer eerst uit **Chapter XVI: Progress of vaccination in England:**

[...] I have already dealt with the life and letters of Edward Jenner, from the study of which an insight may be obtained into the history of vaccination in England up to the year of Jenner's death (1823).

Before passing on to the period which followed, I will point out how it was that after Cow Pox inoculation had been adopted by the profession in this country, the doctrine of Cow Small Pox came to be considered as essential. It will no doubt be a surprise to many to learn the origin of the theory that Cow Pox is modified Small Pox, as it is so universally regarded as the outcome of clinical observations and pathological experiments. To explain this point fully, I will again refer, and at some length, to the assumption, by Jenner, of the term 'variolae vaccinae'.

The title of Jenner's original paper was "On the Cow Pox," but in the published Inquiry he inserted the words, variolae vaccinae. Whether this term was invented by Jenner himself, or whether it was suggested by one of the friends to whom he had shown his manuscript, history does not relate. At any rate, Jenner made himself responsible for it; and it is therefore necessary to investigate his views as to the relation which was supposed to exist between the two diseases. In the first place, the statement which has been recently made, that Jenner believed that Cow Pox was derived from human Small Pox, and hence that the term variolae vaccinae was justifiable, is entirely without foundation. The facts of the case are, that Jenner believed that the Cow Pox was derived from the diseased heels of the horse; he also believed that Small Pox and some other diseases arose from the same source. When the boy Phipps was inoculated with Cow Pox, Jenner was struck with the similarity to some cases of inoculated Small Pox, and he felt convinced that, at least, Cow Pox and Small Pox were derived from the same source. The idea that Cow Pox arose through the agency of milkers suffering from human Small Pox never occurred to Jenner.

Jenner's theory of the origin of Cow Pox from horse grease was well known to his contemporaries. According to Frazer, Woodville strongly objected to it, and recommended Jenner to omit it from his original paper.

“I deeply regret that he did not follow the advice which Dr. Woodville gave him upon being requested to peruse the manuscript of his first treatise on this subject, prior to its publication. The part which Dr. Woodville objected to, was the opinion broached relative to the origin of this disease, than which nothing can be more contrary to philosophy, analogy, and experiment.” [...]

*[...] It was Fraser who was led by the term *variolae vaccinae* to regard Cow Pox as modified Small Pox. After setting aside the Jennerian theory, that Cow Pox is modified horse grease, Fraser wrote:*

“My own opinion of the origin of this disease is certainly original, and I believed till lately that it was also singular; but my learned friend, Dr. James Simms, has broached the same idea in a paper read before the Medical Society of London, and published in the last volume of their memoirs. I believed that the Small Pox and the Cow Pox are one and the same disease under different modifications; and I have found, in course of conversation with some of the most eminent medical and chirurgical doctors in the metropolis, that after having attentively listened to many of the arguments which may be fairly adduced in favour of this opinion they have appeared often to incline to the same belief.

I am aware that the proposition may be considered, by some, equally fanciful and absurd with Dr. Jenner’s, but at the same time let them remember that it is at least supported by analogy, philosophy, and, of course, probability, although not in the present state of our knowledge by experiment. I do not intend to insist upon this doctrine as incontrovertible, nor even to enter largely, at present, into its merits with a view of establishing it, but shall content myself with observing that such a circumstance would answer the most important and useful purposes.” [...]

Op bladzijde 446 begint het volgende citaat:

[...] Jenner’s notes and correspondence had been placed by his executors in Baron’s hands. From his intimate acquaintance with Jenner, he was regarded as the most suitable person to prepare a biography. All Jenner’s early letters were bequeathed to Baron by Edward Gardner. But Baron’s object was not merely to write a biography of Jenner; his work was intended to restore the shattered credit of vaccination. Thus he wrote in the Introduction:

*“The recent prevalence of Small Pox in different parts of Europe, and the corresponding diminution of confidence in the virtues of the *Variolae Vaccinae* **rendered it an object of no inconsiderable importance to endeavour to restore and increase that confidence**, by showing that Dr. Jenner clearly foresaw the deviations which have been observed; that his doctrines, if properly understood, satisfactorily account for them; and that nothing, in fact, has occurred which does not strengthen and confirm his original opinions both with regard to the *Variola* and the *Variolae Vaccinae*. I would hope that something may have been done in these respects that shall tend to promote the universal adoption of a practice capable of effecting so much good.*

“Nothing, I am persuaded, can ever accomplish this object except ‘a real knowledge of the nature of that affection which might be made to take the place of Small Pox’. A very sincere wish to accelerate this event has led me to the discussions contained in the present volume, the publication of which at this time, I would humbly hope, may not be without use.”

No one can possibly read Baron’s ‘Life of Jenner’ without feeling the prejudices and the strong bias displayed all through the work; and no one with any knowledge of comparative pathology, can possibly study it without being impressed with the gross fallacies to which

Baron committed himself. His historical investigation, as I have already pointed out, resulted in proving to his own satisfaction that Jenner's Cow Pox was the remnant of an outbreak of Cow Small Pox, and thus he justified the term, variolae vaccinae, and endeavoured to establish the protective power of Cow Pox. But his elaborate statement proved to be a tissue of blunders, for the disease described as Cow Small Pox had nothing to do with Cow Pox; it was, in fact, Cattle Plague. At the time, however, Baron's teachings were accepted, and thus his blunders fulfilled his purpose. Criticised in the light of modern information, the only value of Baron's work is to be found in the publication of Jenner's correspondence, by which we are able to judge of the way in which vaccination was conducted from 1798 to 1823. Baron employed other channels for spreading his ideas, and he so far succeeded that he misled the medical profession. Thus he was made Chairman of a Committee of the Provincial Medical and Surgical Association, and in their report, signed, and probably entirely written by the Chairman, the pathological fallacies in Jenner's biography were repeated in a description of the affinities between Human Small Pox and the so-called Cow Small Pox [...]

Ik citeer nu verder vanaf bladzijde 463:

[...] As the result of an investigation into the history, and especially the pathology, of "vaccination," I feel convinced that the profession has been misled by Jenner, Baron, the Reports of the National Vaccine Establishment, and by a want of knowledge concerning the nature of Cow Pox, Horse Pox, and other sources of "vaccine lymph".

Though in this country, vaccine lymph is generally taken to mean the virus of Cow Pox, yet the pathology of this disease, and its nature and affinities, have not been made subject of practical study for nearly half a century. We have submitted instead to purely theoretical teaching, and have been led to regard 'vaccination' as inoculation of the human subject with the virus of 'a benign disease of the cow', whereas the viruses in use have been derived from several distinct and severe diseases in different animals.

The statement that the protective measures which have been introduced by Pasteur, such as inoculation for chicken cholera, anthrax, and rabies, are analogous to Jenner's vaccination as a protective against Small Pox, is the most recent extension of the fallacious theory of Cow Small Pox. Pasteur's system is the same in principle as the old method of Small Pox inoculation. Variolation, though a dangerous practice, can at least claim to be based upon scientific grounds, viz., the prevention or modification of a disease by artificially inducing a mild attack of that disease.

Jenner's substitution of Cow Pox inoculation was a purely empirical treatment based upon folklore, and involved a totally different pathological principle - the protection from one disease by the artificial induction of a totally distinct disease - a principle which was not, and has not been since, supported by either clinical experience or pathological experiments.

The Jennerian method has for nearly a century struggled for existence with the support of the Cow Small Pox theory and the numerous and ingenious explanations of failures embodied in the assertions of spurious Cow Pox, inefficiently performed vaccination, inferior quality of lymph, deficiency in the number and quality of marks; and the misinterpretation of statistics. Inoculation of Cow Pox does not have the least effect in affording immunity from the analogous disease in man, syphilis, and neither do Cow Pox, Horse Pox, Sheep Pox, Cattle Plague, or any other radically dissimilar disease, exercise any specific protective power against Human Small Pox. Inoculation of Cow Pox, Horse Pox, and Cattle Plague have totally failed to exterminate Small Pox; and for the eradication of this disease we must in future resort to methods similar to those proposed by Haygarth, which in modern times have been so successful in STAMPING OUT diseases of the lower animals, such as Cattle Plague, Foot and Mouth Disease, and Sheep Pox.

In the case of the lower animals this is been effectually performed by notification , combined with either slaughter, isolation, or muzzling. It has been stated that rabies might be stamped out of this country in twelve months by universal muzzling; with equal truth may it be said that Small Pox might be stamped out in the same time by notification and a rigid system of isolation. And if any practical benefit is to be derived from Pasteur's system of protective inoculation, I cannot see any scientific reason why nurses and other attendants upon cases of Small Pox, should not be protected by inoculation with attenuated Small Pox within the walls of a Small Pox hospital, and with due precaution to prevent the spread of infection. There can be no doubt that ere long a system of COMPULSORY NOTIFICATION and ISOLATION will replace vaccination. Indeed, I maintain that where isolation and vaccination have been carried out in the face of an epidemic, it is isolation which has been instrumental in staying the outbreak, though vaccination has received the credit. Unfortunately a belief in the efficacy of vaccination has been so enforced in the education of the medical practitioner, that it is hardly propable that the futility of the practice will be generally acknowledged in our generation, though nothing would more redound to the credit of the profession and give evidence of the advance made in pathology and sanitary science. It is more probable that when, by means of notification and isolation, Small Pox is kept under control, vaccination will disappear from practice, and will retain only an historical interest [...]

Nu volgt een stukje uit hoofdstuk 9 van dit boek: ***Human smallpox as a source of "vaccine lymph"***

[...] Dr. Thiele, of Kasan, in 1839, succeeded in the following manner. Lymph from human Small Pox was allowed to remain, for ten days between slips of glass fastened together with wax. The virus was then diluted with warm cow's milk, and inoculated like ordinary vaccine lymph Large vesicles resulted. There were febrile symptoms from the third to the fourth day, and a secondary onset of fever, much more pronounced, between the eleventh and the fouteenth days. The areola was stongly marked, and not confined to the inoculated place which was occasionally surrounded by minute secondary vesicles. The scar was larger en deeper than usual, and the edges occasionally sharply defined.

If watched through ten removes, the vesicles were found gradually to assume all the classical characters of the vaccine vedicle. As soon as the secondary fever ceased to occur, inoculation from arm to arm was practised without diluting the lymph with cow's milk.

Thos variety of vaccine lymph was, later, designed "lacto-varioline". That a "vaccine vesicle" could be produced direct from human Small Pox, without, that is to say, the intervention of the cow, was regarded as an extraordinary and novel fact. But the results were precisely the same as those obtained by Adams and Guillon, which, so far as I am aware, had been entirely overlooked. The production of a "vaccine vesicle" from a mixture of variolous lymph and milk was not vaccination in the strict meaning of that term, but simply "variolation" in an extremely mild form.

Precisely similar results were obtained by Gassner in 1801, who succeeded in reducing the effects of Small Pox virus to the production of "vaccine vesicles" on one out of eleven cows which had been inoculated.

The ordinary phenomena of vaccination were observed in four children inoculated from this cow, and similar results followed in seventeen children inoculated from them.

In 1828, Dr. McMichael reported to the Royal College of Physicians that several physicians in Egypt, had been succeeded in raising "vaccine lymph" by inoculation of cows with Small Pox, and that children were succesfully "vaccinated."

In 1830, Dr. Sonderland, of Barmen, claimed to have produced vaccine in cows by infection from human Small Pox. An account of these experiments was published in the Medical Repository, with the following introduction:

“The author of the paper which we shall here translate almost without abridgement, if this experiment be correct, has at length succeeded in establishing what physicians have long laboured to discover, a satisfactory and simple explanation of the protective power of Cow Pox against Small Pox, and, as announced, we will venture to say, the most important discovery which has been made in the pathology of these diseases since vaccination was first introduced, by showing that they are modifications of one another, and that Cow Pox in the cows is simply Small Pox in man, and may be produced in that animal at will by the variolous contagion. Of the authenticity of his facts we don't pretend to judge; all we can say is that the author, if we judge from the language of Boufleu towards him, is a respectable practioner, and a public medical officer.” [...]

Volgens die dr. Sonderland waren de Cow Pox en de humane Small Pox dus identiek en uitwisselbaar. En zou dat de bescherming tegen humane pokken door middel van koeienpokken verklaren.....

Ik ga weer even terug naar dr. Thiele:

[...] Dr. Thiele made a number of attempts to inoculate cows with variolous virus, and at last, succeeded in producing a vesicle with the physical characters of the vaccine vesicle. From this he raised a stock of lymph, which at the time of his publication had passed through seventy-five generations, and has been used for the “vaccination” of over three thousand individuals.

Thiele succeeded in confirming his first results. He insisted upon the necessity of selecting the animals. Cows from four to six years old, which had recently calved, and those with delicate pink skins, were preferred. The udder was shaved, and various lymph was alone employed, and the animals were exposed to a proper temperaure (15o R.) [...]

[...] In December, 1840, Mr. Badcock, of Brighton, quite indepently of Ceely, succeeded in variolating a cow. He was led to undertake the experiment from having suffered from a dangerous attack of Small Pox in 1836, which impressed his mind with the view “that the old vaccine had lost its protective influence by passing through so many constitutions.”

After making inquiries with a view to raising a fresh stock of vaccine from the cow, he came to the conclusion that the only satisfactory way would be to inoculate a cow with Small Pox matter. In the month of December 1840, he inoculated a fine young cow, on the teats and on the external labium, with Small Pox virus. No details of the operation have been recorded, but the result was successful. There was one well-developed vesicle on the external labium, and the lymph from it was employed by Badcock for “vacinating” his son.

The case excited considerable interest, and more than thirty members of the profession examined the boy. In four years, Badcock was able te repeat this experiment upon upwards of ninety cows, and, from occasional succesful cases, to raise fresh supplies of “vaccine.” According to the testimonials published by Badcock, there were slight differences observed, by several phsicians, on comparing the vesicles with those produced by the current vaccine lymph. Badcock ultimately succesfully variolated 37 out of 200 cows experimented upon. The vesicles were only perfect in 33, and these cases furnished lymph for 400 practioners. In 1857, it was estimated that 14,000 people had been “vaccinated” with Badcock's lymph, and

subsequently it was stated that Badcock himself had “vaccinated” upwards of 20,000 individuals.

It is quite a mistake to speak of this operation as vaccination. This method was simply a modification of the Sttonian system of Small Pox inoculation, in which, in the first remove, the cow was substituted for the human subject. I repeat, that all those who have been inoculated with Ceely’s or Badcock’s “variola-vaccine” lymph have not, in the true sense of the word, been vaccinated; they have not been Cow Poxed, but they have been variolated. This is amply verified by the results which have followed in the hands of others who have variolated cows, and used the products for “vaccination.”

In 1836, Dr. Martin, of Attleborough, Mass., inoculated the cow’s udder with variolous lymph, and by inoculating children from the variolated cow, produced an epidemic of Small Pox with fatal cases.

In 1839, Reiter, of Munich, after fifty unsuccessful attempts, succeeded in producing a vesicle with all the characters of the vaccine vesicle. The variolous lymph which had been employed in that case, when inoculated into another cow, ave rise to results similar to those obtained by Chauveau. A child inoculated from the “successful” vesicle, contracted Small Pox.

In 1847, variolation of the cow was succesfully performed at Berlin, but the products inoculated in the human subject resulted in retro-variolisisation , and one of the experimental children died of confluent Small Pox.

In 1864, the Lyons Commission encountered similar disasters. Chauveau, in his classical experiments, made in the name of the Lyons Commission, 1836 – 1865, inoculated seventeen animals with virulent variolous lymph (en pleine activité). He obtained very small papules, which became insignificant in the second remove. The contents of these papules inoculated into children always produced Small Pox, which recalled, in its course, the results obtained by the early inoculators of Small Pox. One of the children transmitted Small Pox to another child, who communicated it to the mother. Some of the children died. In 1871, Chauveau produced precisely similar results. He inoculated Small Pox and Cow Pox on the same animal. The Small Pox virus still produced Small Pox, and the Cow Pox virus produced Cow Pox. The two viruses mixed and inoculated in bovines engendered Cow Pox only; and a similar result was obtained in children after six successive transmissions through the cow. Chauveau therefore believes in the autonomy of Cow Pox; in other words, in the impossibility of transforming Small Pox into Cow Pox [...]

De ‘wetenschap’ maakte toch enige voortgang. Men had ontdekt dat humane pokken en Cow Pox, twee verschillende ziekten waren. Ook toen al gebruikte men kinderen als proefdieren.

Ik citeer ook iets uit hoofdstuk 10: **Cattle plague as a source of “vaccine lymph”**:
[...] According to Baron, in 1837, another series of inoculations was performed by Mr. Macpherson in Bengal with virus from diseased cows, “on which occasion an eruptive complaint of the true variolous nature was produced;” and similar phenomena were observed at Gowalpara by Mr. Wood in 1838.

“In several of his cases the symptoms were so severe as to excite apprehension that the disease would terminate fatally. He was so strongly impressed with this fact, that he thought it

would be better to take human Small Pox rather than Cow Small Pox for inoculation, when the latter assumes its dangerous and fatal form.”

From all these independent observations, if we accept them as correct, there would seem to be no doubt that cattle-plague virus inoculated in the human subject will produce a vesicle with the physical characters of the vaccine vesicle, and succeeded occasionally by an eruption which appears to have the characters of the eruption of cattle-plague. That cattle-plague is not infectious to man in the ordinary sense affords no proof that the disease may not be cultivated in the human subject by inoculation.

But these occurrences had to be explained away, for such circumstances were incompatible with the Small Pox theory of Cow Pox.

We have only to turn again to Dr. Seaton’s Handbook of Vaccination to find that ingenious explanations were forthcoming.

First of all, with regard to Dr. Macpherson’s cases, Seaton admitted that the “vaccinations” were genuine, and that a stock of “vaccine” was established and was afterwards regularly continued. But he adds:

“From these facts it is not to be doubted that a case of Cow Pox in the cow had been met with; but what is to be doubted is that the Gotee – the malignant disease above referred to – was the source of this infection.”

It was evidently impossible for Seaton to admit that, a vaccine vesicle could be produced by “management” of cattle-plague. But having admitted that a vaccine vesicle had somehow resulted, the only way out of the difficulty was to suppose that in some extraordinary way a case of Cow Pox had cropped up amidst the epidemic of cattle-plague. Nor does the fact that these experiments were repeated by Furnell in another part of India, appear in the least to have shaken his opinion. But while Seaton throws doubt upon the Gotee as the source of the lymph, he admits that the cows had “a generalised eruption of some kind or another,” and he explains the pustular eruption in the inoculated children as the result of an accidental admixture of either inoculated or casual human Small Pox. If we were to accept Seaton’s view, we must, in some similar fashion, explain away the independent experience of Mr. Wood, of Gawalpara, and reject Ceely’s and Murchison’s accounts of inoculated cattle-plague on the hand of Mr. Hancock [...]

We zien nu dus dat we een koe niet kunnen besmetten met humane pokken, maar dat omgekeerd kennelijk wel een mens besmet kan raken met een koeienziekte als die mens wordt besmet via inoculatie of vaccinatie.....

En dan moeten we beseffen dat in 1840 Badcock nog vrolijk trachtte om koeien te inoculeren met de menselijke pokken, om dan met de pus van de weinige gevallen waarin die koeien inderdaad ziek werden, kinderen te gaan inoculeren. De ervaringen uit 1837 en 1838 ten spijt.

In het boek van Crookshank staat ook een brief weergegeven die op 6 juli 1805 in Londen werd geschreven aan Mr. W.R. Rogers, ‘Author of the Examination of the Evidence before the House of Commons, &c, Sec. De afzender is een zekere John Birch, Esq., Surgeon to His Royal Highness the prince of Wales, &c. De titel van de brief luidt: ***A letter occasioned by the many failures of Cow-Pox.***

Hieronder geef ik alleen het P.S. van deze brief weer:

[...] Every post brings me accounts of the failures of Vaccination. From Hertfordshire, I have notice of four cases within the last month, two of which were fatal; but as I do not admit Hearsay Evidence, I must enquire more particularly before I publish them.

However, I have just seen a child in Orange Court, Swallow Street, vaccinated five years ago by a Man-midwife, who is not only the strongest advocate for vaccination, but is considered to be one of its most skilful practioners. By him this child was pronounced to have had the genuine sort; and so strong was his conviction of it, that he took matter from him to vaccinate other patients with; yet this very Child is now full of the true , not of the supposed Small Pox.

The mother says the Small Pox is not in the Court – and that the child has not been in the way of infection to her knowledge. Add this case to the confessions of the Monthly Journal, and to Dr. Mosely’s list, and what is the conclusion we are to draw?

There is but one; namely , that Vaccination neither secures the patient from catching the Small Pox by variolous infection, nor, when so caught, lessens the danger of disease. For my own part I tremble to think on the perils which await Society, from the prevalence of Vaccination. Unless it be stopped, we shall see Small Pox at no very distant period recur in all the terrors with which it was first surrounded; desolating cities like the plague and sweeping thousands from the earth, who, lulled into a false security, will have fatally deprived themselves of the only proper means of defence [...]

Die brief werd dus al ruim twee eeuwen geleden geschreven, maar is nog o zo actueel.....

De achtergrond van de veelheid van vaccinaties die kinderen en volwassenen tegenwoordig te verstouwen krijgen, ligt dus ten eerste in het tragische geknoei van Jenner – naar aanleiding van het bijgeloof van de melkmeisjes van Gloucestershire uit zijn tijd, die geloofden dat iemand die eenmaal koeienpokken had doorgemaakt geen menselijke pokken meer kon krijgen - en ten tweede aan de niet-wetenschappelijke eierzucht van de man aan wie later de intellectuele nalatenschap van Jenner werd toevertrouwd.

En op dat onbeschrijfelijke, verbijsterende en onwetenschappelijke geknoei is dus de hele huidige – niet meer uit te roeien - vaccinatiepraktijk gegrondvest.....

122 jaar - en vele doden en gehandicapten – na het verschijnen van bovenvermelde boek is het dus nog steeds nodig dat er weer een studie verschijnt die aantoont dat er nog heel veel werk is te verzetten voor de Vereniging tegen de Kwakzalverij. Want nog immer is men na het degelijke standaardwerk van professor Crookshank geen steek verder gekomen met het ontwikkelen van medisch-wetenschappelijke inzichten en het in de praktijk brengen daarvan. Edgar M. Crookshank (1858 – 1928) studeerde bij Lister, Pasteur en Koch. Gevierde grootheden in de wetenschap. Waarom is het werk van Crookshank dan in de vergetelheid geraakt?

Gary Krasner schreef is een artikel over de heilloze vaccinaties tegen pokken het volgende:
[...] Inducing the public to clamor for smallpox vaccines for every American will lead to a repeat of the aforementioned tragic events. In many additional cases the sickness, injuries and deaths commonly attributed to the microbe were actually due, wholly or in part, to the poisoning effects of vaccination campaigns: from the worldwide influenza epidemic of 1918-19 that killed 20 million following the administration of anti-typhoid inoculations, to the 1976 swine flu “epidemic” (among hogs!) that permanently crippled a “meager” few thoudand Americans with Guillain-Barré syndrome following an ill-advised national vaccination program. Paralytic diseases have been recorded hundreds of years ago. But epidemic

numbers had not appeared until the latter part of the 19th century, right after compulsory smallpox vaccination was instituted [...]

Wat ik me ineens afvraag, is of onze eminente Nederlandse viroloog, professor Ab Osterhaus, ook bekend is met het werk van zijn even eminente Engelse voorganger professor Crookshank. Tijdens mijn eigen studie behoorde het vak ‘geschiedenis van de wetenschap’ – vooral toegespitst op het eigen vakgebied – tot het curriculum. Zou dat vak ook op het curriculum van de studierichting van de heer Osterhaus hebben gestaan? Als dat zo is, dan moet dat boek van prof. Crookshank zeker ter sprake zijn gekomen. Gezien de leeftijd van de heer Osterhaus zou het best kunnen dat ook hij als ijverig student dat boek in eigen land heeft ingezien, want het onderhavige boek werd in de ‘University of California Library’ te Los Angeles tussen 22-12-1965 en 15-6-1988 nog diverse malen uitgeleend. Kennelijk was het toen nog in gebruik als regulier naslagwerk op een universiteit. En daarom kan men dat boek ook op de Nederlandse universiteiten niet over het hoofd hebben gezien.

Alleen al uit het oogpunt van de geschiedenis van de ontwikkeling van de vaccinaties – een medische sector met toekomst – zou het nog op iedere universiteit met raakvlakken met de vaccinatietechnologie aanwezig moeten zijn. Ik kon het helaas niet terugvinden in de catalogus van de bibliotheek van de Erasmus Universiteit, waaraan de heer Osterhaus verbonden is.

Een tijdgenoot van Crookshank was dr. Charles Campbell een arts uit Texas die ontdekte dat de pokken alleen verspreid werden door de beet van het bloedzuigende insect dat bekend staat als ‘bedwants’, ofwel *Cimex Lectularius*. ‘Cimex’ is Latijn voor ‘insect of wandluis’ en *Lectularius* is Latijn voor ‘bed’.

Dr. Campbell (1865 – 1931) bewees dat de pokken niet besmettelijk zijn en dat het ook geen ‘airborne disease’ is. Het pokkenvirus verspreidt zich dus niet via de lucht.

Die bedwantsen nestelden zich in de met stro gevulde matrassen van die tijd. Een remedie was eenvoudig. Het verbranden van die stro-matrassen en het vervangen daarvan door andere schone matrassen en/of matrassen die niet aantrekkelijk waren voor bedwantsen reduceerde het risico op pokken aanzienlijk.

Campbell ontdekte ook dat vaccinaties de pokken niet konden voorkomen, maar omdat hij nu wist hoe die ziekte kon worden uitgeroeid was dat ook geen probleem meer.

Hoewel Campbell en anderen probeerden om zijn werk uit te geven, werd het volkomen genegeerd, zelfs ook nog toen hij in 1919 door de staat Texas werd genomineerd voor de Nobelprijs voor zijn werk met betrekking tot de ontdekking hoe malaria ontstaat door de beet van de malariamug. Die Nobelprijs ging zijn neus voorbij en daarna raakte hij snel in de vergetelheid.

Maar ja, toen dr. Campbell ontdekte hoe de pokken nou echt werden veroorzaakt – en hoe die ellendige ziekte kon worden voorkomen – was de fabricage van pokkenvaccins al een erg lucratieve bezigheid geworden en zat de vaccinindustrie niet meer te wachten op de onthullende bevindingen van Campbell.

Ik zal deze introductie besluiten met de woorden van Charles Rauta, zoals hij deze schreef in het artikel *Vaccination In Italy*, dat verscheen in de *New York Medical Journal* van juli 1899, dus 10 jaar na het verschijnen van het werk van Professor Edgar Crookshank:

[...] “Vaccination is a monstrosity; a misbegotten offspring of error and ignorance. It should have no place in either hygiene or medicine. Believe not in vaccination; it is a world-wide delusion, an unscientific practice, a fatal superstition with consequences measured today by tears and sorrow without end.” [...]