

VIALS OF EVIL 1891-1893

WITH INCREASING frequency and force, the slings and arrows of outrageous fortune struck man and beast. The tragedy of individuals became common to the whole of Africa South. Against mounting menace from rampant 'Nature', resources were marshalled to promote the development of all the territories in the sub-continent. Railways were rapidly being built to exploit the land and for strategic reasons. The Cape, deep in depression through diminishing revenue and failing banks, pressed on. Kruger fished in foreign waters for the capital to build his track from Pretoria to Delagoa Bay and cease his subservience to Colonial ports. Animal transport was proving both precarious and inadequate.

1 Successful cattle farming depended on the whim of 'Nature'. Pests, diseases and developmental problems could to some extent be combatted mechanically; but basic animal losses had to be faced. On the 20th June 1891, the Natal Government instituted a Sheep and Cattle Department and increased Wiltshire's staff by one inspector. The Orange Free State did nothing; but at the Cape at least, the men in charge knew that if 'Nature' were to be subdued, 'Science' must be sponsored.

2 As Theiler at last received his microscope and equipment at Irene, Edington landed in Cape Town with materials for the most modern and complete laboratory in the southern hemisphere. Leaving almost immediately by train, he met Hutcheon at De Aar in mid-Karoo and together they made a short local survey of sheep disease before travelling to the Eastern Province. Edington then met Borthwick, his previous pupil, and the energetic knowledgeable Soga, appraising their heavy duties among multifarious diseases. Hutcheon had now to decide on the site of the Laboratory. Edington, attracted by the English Graham's Town and its central position in a stock-raising area, found in the 'Royal Engineers Yard' (a solid double-storeyed building constructed by the British Army in 1838 of local stone with a surmounting observation tower) very suitable premises with various adjustments and alterations for his purposes. He made his report, was authorised to proceed and spent the next six months in re-building, laying on water and gas, engaging staff, buying experimental animals and generally establishing an efficient research institute. His instructions were, the moment it was in operation, to investigate Horse Sickness.

3 Every kind of individual was investigating Horse Sickness or propounding 'cures' or 'remedies'. The Boers had been employing monstrous expedients for generations. The medical doctors of Pretoria, particularly G. W. S. Lingbeek (a Hollander), J. B. Knobel (a South African from Colesberg) J. W. Stroud (an English dental surgeon qualified in America) and G. B. Messum (a Scot) had been theorising and experimenting for years. Toward the middle of 1891, Dr Knobel had a chat with Kruger about it, emphasising the need for a Commission to investigate the disease. On the 6th May, he confirmed his request to the President in writing asking that he, as Superintendent of the Hospital and Dr Messum as District Surgeon, be appointed to serve on it, particularly, as he Knobel, had long worked on Horse Sickness. The President turned a deaf ear. On the 19th June 1891 (the eve of Theiler's accident), the maverick G. C. Baker actually took out an 'Octrooi' or Patent in the South African Republic for a 'middel tot voorbehoeding tegen paardenziekte' (a means of preventing Horse Sickness). Mr Pieter Roux of Ceres, Cape travelled the country administering his unspecified treatment at a price. Among all his pre-occupations, Hutcheon was preparing a homely and helpful brochure. In Pietermaritzburg and other places, the British Army veterinary surgeons attached to various regiments, discussed their own surmises.

6 At that moment, Theiler lay, conscious and in pain, in the Volkshospitaal on the southern outskirts of Pretoria. It is reasonably certain that he was not attended by the Superintendent, Dr Knobel but, in the light of subsequent events, by Dr Messum, one of the pioneering doctors and noted for his surgical skill. He was the District Surgeon and the most likely to be called in the absence of Knobel on a Saturday morning. A Scot but qualified in London with experience at Guy's and on the Continent, Messum was much valued by Kruger's Government and appointed to numerous offices, including Medical Officer to the Staatsartillerie.

7 Theiler had only one idea in his head at the time – no one in Switzerland must know of his mangled left arm and the loss of his hand, least of all his father who would certainly construe it as a further failure of his wayward son. Messum did what he could for the stump; but the coarse thrashing blades of the chaff-cutter had done severe damage and it failed to heal. Within a few weeks, Theiler, stoic and understanding, had to endure an operation. It appeared only partially successful and he faced another.

8 The horror of his calamity struck all whom he had so newly met and strangers besides. Constançon came to see him and the score or so of compatriots who constituted the Pretoria Swiss community (many of whom he had met in his convivial week in Johannesburg). He was visited by Mrs James Gray of the Presbyterian Church Women's Society and more than probably by Nellmapius. Some years later, Theiler was reported as having said to his visitors – 'I have indeed lost one hand but not my courage. I do not despair.' Everyone, the Swiss particularly, were begged not to mention his accident. Only 24 years old, indominantly optimistic and courageous, Theiler faced his future resolutely.

10 Very soon he could write and it was of course to Emma in England. Legend has it that he told her he was now a broken useless man, a cripple with no career and that all arrangements between them must end. She is alleged to have replied that he needed her more than ever and took ship immediately. The engaging illusion is uncharacteristic. Both were cautious thorough thinkers, committing themselves to no course without exhaustive consideration. Theiler would have told her that he could not fully envisage the future until his wound were fully healed and an artificial hand fitted. Then he would know of what he was capable. He might still be a practising veterinary surgeon or, more likely, a research scientist devising cures for various animal diseases and, like Pasteur and others, selling them at enormous commercial profit. He felt that he was very near that position already with Horse Sickness but for the moment, could do no microscopic work. He would never be able to prepare his slides. Someone would always have to do it for him as well as the initial work on post-mortems. Letters, quickly carried by the fast new ships, passed between them. Emma agreed to wait six months until he found himself. Her knowledge of English would be perfect by then.

12 To maintain the delusion, he wrote his parents 'from Irene' where, he said, Constançon had advised him to remain. It is doubtful whether he was in fact there. Possibly ambulant, he was still under medical treatment and later wrote to Lyss that he had lain for twelve long weeks in hospital. 'God helps those who help themselves', he wrote, 'if courage is lost, all is lost.' He never lacked it. While he remained at the hospital for observation and nursing care, he also went out and read books and newspapers. His letters to his family, at first almost indecipherably written in pencil, reflected all the Pretoria and Transvaal news – the mounting of a campaign against the refractory chief Magato, the Swiss recruits to the Straatsartillerie getting £6.10s.0d. a month, the coming lighting of Pretoria's streets with electricity, the advancing railways. He begged his father to send him books on Pathological Anatomy, to subscribe for him to the Swiss Veterinary Journal, to buy a better microscope and veterinary instruments unobtainable in Pretoria, as well as chemicals and medicaments. His friend, the electrician Lauber, would soon be leaving Switzerland and was already loaded with his requests.

15 Theiler rattled on – about the inertia of the Swiss in Pretoria whereas in Johannesburg they had grandly celebrated the 600th Anniversary of the Swiss Federal Republic, about the veld fires lit to burn off the dried grass for the coming Spring, about this and that trifle to divert his people. He did not tell them that five days before his accident, the Volksraad had vetoed yet another petition (from 75 Zoutpansberg farmers) for an Agricultural Department. Replying to a question, the State President had blandly stated that nothing had been done about drafting regulations and publishing them in the *Staatscourant* as previously resolved. Kruger did not want to prejudice his election prospects with an unpopular innovation.

16 The educated invalid in the Volkshospitaal interested several of the local cognoscenti, particularly his physician Dr Messum. They had common ground. Theiler also had common ground with a young German chemist Jacques Schlesinger, then successfully conducting an analytical laboratory in Pretoria (he had certified the quality of the beer produced by a local brewery) and acting as locum tenens for a more distinguished German colleague in Johannesburg, Dr Julius Loevy. It was Loevy who had written an excited article on Koch's discovery of tuberculin which, translated into English by the then Government lithographer, Leo Weinthal, had been published in the *Cape Agricultural Journal* as Theiler made his way through Johannesburg to Pretoria. Koch's name had since suffered locally. His tuberculin, alleged to cure Leprosy, had been injected by Dr Messum into a willing sufferer and later into other patients in the inadequate Leper Asylum which he supervised. He must have discussed with Theiler that it was having no effect.

18 Pretoria held further surprises for him. A Natural History Society had been formed with Nellmapius and Weinthal (now the manager of *The Press* owned by Nellmapius) as members. In the bitter cold of July that afflicted Theiler's wounded arm, they had visited the caves at Fountains. It was dubious whether, in the class-structure of Pretoria, they would condescend to know the stocky, maimed guttural-voiced Swiss who now had no purpose in their midst. A veterinary surgeon – 'a horse doctor'! – had no status in the community.

19 Nellmapius was good to him and promised support. The Swiss (numbering about 30, exclusive of women and children) were with him to a man, feeding, housing and cherishing him. Without them, he would have starved. When he was better, Constançon, steadily decreasing in public favour, took him to his farm for two weeks (he earned his keep 'by word and deed on the farm', he wrote lest his parents think him a sponger), bringing him frequently to town to observe conditions. He noted the 'Veterinary Farriers' – J. G. Wood who ran a Veterinary Shoeing Forge in Market Street and F. S. McKittrick who had a business in Pretorius Street. There were others who had Livery Stables and baited horses for visiting farmers and travellers. They met a real need. Would he, a handicapped man purveying qualified veterinary services, be able to prove such a need for his own talents?

20 He had discussed his position thoroughly with Constançon who knew the farmers and was himself a farmer while moving in exalted circles through his consular status. Constançon encouraged him. He made elaborate plans. He was sure that his knowledge of Horse Sickness (whose season would soon start) and his suspicion that it was due to some form of septicaemia, would serve to establish him. He was beginning to know influential people and Nellmapius would help him. He would put up his plate as Veterinary Surgeon and work like a demon to justify himself to his father – and Emma.

21 In the middle of September 1891 on borrowed money since he had none of his own, Theiler put up a notice in the Grand Hotel International in Church Square, Pretoria where he rented a room and a stable in the yard for £8.10s.0d. a month, all found. 'I live like a prince', he wrote. The proprietor was a Swiss, F. Heretier, soon to become the catering manager of the Rand Club in Johannesburg. His wife cooked traditional Swiss dishes in affecting style. Nellmapius was as

good as his word and, when Theiler went to Weinthal to arrange regular advertising in *The Press* he was charged reduced rates and allowed to use Nellmapius' resounding name. On the 19th September 1891, his advertisement first appeared:

A. THEILER
VETERINARY SURGEON
(*State Exam, Zurich, Switzerland*)
With local experience at Irene Estate

References: A. H. Nellmapius Esq and E. Constançon Esq

Orders Promptly Attended To

Address:

Grand Hotel International
(late 'Strachan's')
Church Street East
P.O. Box 296

- 22 He had been advised that if he were to attract the attention of the dyed-in-the-wool Boers, he
23 should advertise in the printed Minutes of a Conference called by Kruger to resolve a bitter
Church dispute which continued for many days in August/September. His insertion (in High
Dutch) was foolhardy to a degree:

A. THEILER
(*Diplomaed Veterinarian, Horse Doctor of the Swiss Army*)

After experience gained from the latest epidemic of Horse Sickness on the Irene Estate, has discovered a remedy which, when administered in the first stage of the disease, is a powerful cure. With this remedy goes a description of the signs by which the disease can speedily be recognised and how they can be treated.

Price of the Remedy: Ten Shillings
A. THEILER – VETERINARIAN
Grand Hotel International
Pretoria
P.O. Box 296

- 24 The enormity of what he was doing suddenly struck him and in desperation, he wrote to Lyss –
in a double envelope. The first contained a message covering the second: 'Inside this envelope
is a secret which I trust you as my good friend to tell to no one except Tuller in case he comes.
Otherwise I rely on you to tell absolutely no one, least of all my parents.' He wrote of his lost
left hand, long hospitalisation and the possibility of another operation. I need help, he said.
My friend must do the outside work and I will look after the clinical. He was confident of success
but must know without delay whether Lyss would come or, if not he, then Tuller. Neither could.
It was a blow that he could share with no one.
- 25 His way was bitterly hard. Summer smote Pretoria with savage heat and his corrugated-iron
room in the hotel yard became unbearable. The hotel itself had a thatched roof and he took his
meals in comparatively cool comfort; but waiting for clients who rarely appeared was almost
insufferable. He wrote bravely that he had earned as much in his first week as in two months at

Beromunster but he failed in his hope to send £10 home every month. He had to be dressed 'like a gentleman', he said and it cost much. Money drained away from him. Constançon took him to several farms to drum up business and slowly he acquired a small clientèle, charging 10s. for the first visit and 7s.6d. for the next. His heart was rejoiced by the arrival of his electrician friend Ernst Lauber bringing news from home and sundry of his small requests. Lauber expected employment in the street lighting of Pretoria but, none offering after two weeks, he left for Johannesburg where he was quickly employed on the mines at £26 a month.

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26 The 'garden city' of Pretoria was at its loveliest with hedges of roses, pomegranates and oleander
27 and water-furrows running beneath them (the State Secretary W. J. Leyds, caught a 5-foot eel
28 outside his house). The great Government Building in Church Square whose construction materials 'had been dragged up by oxen' from the coast, was fully equipped with telephones and all but complete. In November, the State President and entourage inspected and approved it prior to formal opening. There was no public transport of any kind, not even horse-trams.

29 Among the citizens, horses abounded en masse. The Boers came to town in wagons drawn
30 by 32 or more oxen. Neither, Theiler pronounced, knew how to care for their animals. Soon the
31 rainy season would start with tremendous thunder storms and deluges in tropic heat, bringing
32 the dreaded Horse Sickness. He had prepared a pamphlet in English and Dutch (translated for
33 him by his friend H. J. L. Roarda, a student from Zurich, though he had himself now mastered
34 the language with the help of attractive and nubile nurses). When it was printed, he would send
it to the Government to support an application for employment and financial help in devising
a method of inoculation. It was the recognised procedure. Dr Knobel himself used it on the
15th December 1891, asking the Government for £100 for his researches into Horse Sickness,
to be spent on buying horses, shooting them and removing the carcasses. Neither succeeded.

31 For three months, Theiler's advertisement also ran expensively in *De Volksstem* edited by the
Hollander Dr F. V. Engelenburg who regarded him favourably and published his articles in
Dutch; but the Boers were hard to convince. No one could tell them anything about animals.
32 Gregarious and ingratiating as always, Theiler persevered. At his 'clinic' in the hotel yard, he
33 said, he could be expected in one hour to speak German, English, Dutch and 'Kaffir'. In his
34 first month, he claimed to have taken £20 in visits only and expected it to rise to £30 the next.
His clients were mostly English, Hollanders and Germans. He tried again to convince Lyss
that a partnership with him would be the road to fortune. He foresaw that when the Horse
Sickness started, he would be unable to manage his 'growing practice'. If his researches suc-
ceeded and he found a cure, they would be able to charge £5 or £6 per horse (a recovered horse
was supposedly immune or 'salted' and greatly increased in value though some alleged that,
debilitated by the disease, they were feeble and unwilling). Lyss must come at once, bringing all
the instruments for treatment and materials for prescriptions that they would need.

34 Theiler put up a brave front but was failing. Sandoz, the Swiss brewer, offered to subsidise
his researches but, one-handed, he could not pursue them. Lacking a horse, a cart and a 'Kaffir'
to help him, he could not extend his practice to the surrounding farms where he might be
needed. Worse, Heretier had left for the Rand Club and his protégé no longer found favour in
the hotel. In a black period, he considered going to the deeply depressed Johannesburg to find
employment with the Tramway Company. He had no money and his pride was infinitely morti-
fied by failing to send some to his family at Christmas. Word had reached him that in Frick,
he was considered a failure. His father, stung by the humiliation, wrote only in bitterly critical
terms.

35 Baffled and disheartened, his fertile mind leapt from one improbable proposition to another. He would not give in. Clearly he saw that Science, payable Science, could vanquish the regular onslaughts of Nature. He turned to his new friends and together they hatched an idealistic scheme. Jacques Schlesinger in his small and rudimentary chemical laboratory, suddenly became a 'bacteriologist' and – Theiler unwisely alleged – had discovered the bacillus of Horse Sickness. He would undertake the microscopic pathological work now beyond Theiler's capacities and together they would evolve a substance to combat the bacillus. Then they would market it at a high price. Neither had any experience in the commercial field but that aspect would be managed by the versatile Dr Messum, himself a longstanding student of the disease. Even sober scientific men were beguiled by the dangling prize.

The problem was never a local affair. When Lord Randolph Churchill, calling on Kruger in Pretoria in July 1891, proceeded on his extensive safari to Mashonaland (in a specially-equipped spider bought from Nellmapius), his letters in the series commissioned by the *London Daily Graphic* dilated on the insuperable difficulty of developing new countries when the essential horses and mules were virtually massacred by Horse Sickness. The Bechuanaland Border Police lost 80% to 90% and the Chartered Company much the same in Mashonaland. (Churchill's companion, Major George Giles of the Royal Engineers, doctored the expedition's animals with a stiff dose of gin and quinine once a week and tarred their nostrils three times a week. If they showed Sickness symptoms, he forced inhalation by fixing burning sulphur under their muzzles.)

36 The letters produced considerable reaction, principally from military men confronted by the problem in Africa. Notable among them was Colonel (later Sir) Francis Duck, Inspecting Veterinary Surgeon of the British Army who had served in the Gaika-Gcaleka, the Zulu and the Transvaal (1881) Wars and the Bechuanaland Expedition. He expressed the view, once held by Hutcheon, that the disease might be caused by an element in veld pasturage. Armed with this and other information, the Paris correspondent of *The Graphic* called on Pasteur, then old and wise, to obtain his views on the possibility of a vaccine being found. Pasteur knew about Horse Sickness and adeptly fielded all questions, stating that there were great scientists in England such as Horseley who could patiently and exhaustively examine the disease. There were always young Englishmen studying at his Institute who could do so too. Ardent African and journalist as he was, Leo Weinthal published the interview in *The Press* at the end of 1891, proudly adding that Dr Schlesinger had found the bacillus and sent it to Koch in Berlin for examination and advice. No further word appeared. The Schlesinger-Theiler-Messum Syndicate had failed. Another arrow had found its mark.

37 38 They came thick and fast. Cammack in Johannesburg, fighting the same battle for professional services, now addressed the Government through the 'secretary' (H. B. Hatchwell) of his 'Transvaal Veterinary Hospital'. He asked that a committee be appointed to visit his institution where instruction could be given to farmers' sons in animal diseases, particularly Horse Sickness. The Government practised its usual masterly inactivity. Cammack however remained a competitive force.

38a 39b Until an artificial wooden hand could be attached by braces to his left arm (it was ordered for him, with a movable finger to hold an instrument against the thumb, by the chemist Loewenstein in Johannesburg from the firm H. Windler in Berlin), Theiler could neither lace his boots nor cut his food nor button his coat nor ride a horse nor examine and surgically treat an animal. He learnt to overcome his humiliating daily frustrations but the professional impediment was severe and he had no money with which to compensate for it. By the end of 1891, he was able to employ 'a Kaffir boy' at 5s. a week with food whom he trained to assist him in examinations, postmortems and other fieldwork; but he could not afford a horse and cart. He had not yet paid

his tailor's bill and there were many other clamant creditors in Pretoria and Switzerland. It was no time for Emma to come. Indomitably hopeful, he told her that sooner or later, his plan must fructify and early in 1892, when success during the Horse Sickness season might justify it, he would send her word.

40 In a desperate negligence of professional ethics, he advertised in newspapers:

H-O-R-S-E S-I-C-K-N-E-S-S
AN INFALLIBLE CURE FOR HORSE SICKNESS
if applied in time
is now available for the sum of
TEN SHILLINGS

from A. Theiler, Veterinary Surgeon, P.O. Box 296 or
Grand Hotel International, Church Street East, Pretoria
N.B. Instructions as to how it must be used enclosed with
each remedy

A. THEILER

41 He had no cure, much less an 'infallible' one. Throughout Africa South early in 1892, thousands
42 of horses and mules were dying. Edington, now securely entrenched in his magnificent laboratory
43 at Graham's Town, had begun his research by issuing a careful questionnaire on 23 points to
Cape farmers. Captain M. Horace Hayes F.R.C.V.S., the best known and most popular veteri-
nary authority of his own and later times (his 'Veterinary Notes for Horse Owners', first published
in 1877. was still steadily and regularly reprinted a century later) called on him there in January
1892 and sympathised with his problems. 13,979 horses were to die in the Cape Colony alone
in that year. Theiler with his speculative observations had nothing to contribute to a solution
which every year evoked quackish cries from every kind of person.

44 The dentist Dr J. W. Stroud expressed his views on inoculation in *The Press*, calling on the
45 Republican Government or the Agricultural Society or a society of breeders to subsidise re-
search. Cammack joined issue a month later, writing knowledgeably and well after 14 years
experience, and deploring the Transvaal Government's failure to assist research. A private
association of horse-breeders would have to undertake it, he said. Then, as fatalities increased,
46 he invaded Theiler's territory with an advertisement in *The Press* running in March 1892:

VETERINARY NOTICE

The undersigned, having had the medical management of
Thirty One Thousand Horses and Mules in South Africa
since 1878, feels justified in guaranteeing the

PREVENTION OF HORSE SICKNESS

J. CAMMACK

Medallist, Highland and Agricultural Society of Scotland

The Veterinary Hospital
Johannesburg

47 At the same time at the Cape, Hutcheon (whose miserably inadequate staff was about to be
48 increased by a German veterinarian Otto Henning) published his brochure on Horse Sickness
and sent Borthwick to Ceres to investigate Pieter Roux's loud claims. Borthwick then rejoined
Edington in Graham's Town to assist in thorough scientific investigation of the disease.

Combative to a degree, Theiler was undismayed and fought for his position in the Transvaal.

49 Whenever possible (mostly on the veld), his 'boy' cut open the carcasses of horses dead from the Sickness and Theiler minutely recorded his observations. He had many irons in the fire. He had noted that the owners of horses (particularly English) liked to take their mounts to a single place for all services. They expected more than shoeing from the 'veterinary farriers' then abounding. Theiler decided to employ one, a German, and thus reap a wider custom. The proposal was absurd. Earning (he said) £30 a month, he had a swarm of expenses and debts. Few of his clients paid him. If they had, he would long since have repaid his father and made his way. In his embarrassment and shame, he had ceased writing to him, confiding only in his sister Marie that he had been pulling wool over his parents' eyes. His father had been suspicious and had written sceptically about all his plans.

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Theiler's hope and courage were not ill-founded. Despite all the mismanagement, corruption and concession-peddling (his Swiss friend Fehr, soon to supplant Constançon as consul, had made a small fortune from a concession for salt-pans), the Transvaal Republic was rapidly advancing into the modern world of electricity, railways and industry. Magnificent buildings now lined Church Square – the Raadzaal, the Supreme Court, the National Bank and others under construction. The railway line from the Cape was now only 22 miles from Johannesburg. When it came, business would boom. In the meantime, politics suspended all progressive activity. It was known that General Joubert would oppose Kruger for the presidency early in 1893. The fact closely affected Theiler. From the outset, he had aimed at State appointment.

Through Dr Knobel, personal physician to General Joubert, the Commandant-General, and through Dr Messum, medical officer of the Staatsartillerie, he had become known to those on high and had secured entry to the Artillery Camp. He privately treated the horses of the commanding officer, Commandant H. P. N. Pretorius and those of other officers, even successfully operating on them. His particular friend and ally was the second-in-command, Captain A. Zboril, an Austrian educated at Zurich. They had much in common.

52 A strange individual actually born in the Austrian Army, Zboril bore a large scar on his skull
53 made by a beer mug as testimony to the oats he had sown at Zurich ten years previous to Theiler. Militarily trained, he had come to the Transvaal in 1882, engaged in prospecting for gold and in 1888, joined the Rijdende (Mounted) Artillerie as it was then called, where he rapidly displayed excellent disciplinary and organisational skills. As adjutant to the heavily-bearded and aging Pretorius, he accompanied General Joubert on expeditions to Magato's country in the north and to Natal, and stood in his good graces. Zboril undertook to prosper Theiler's cause and, with Knobel and Messum also speaking well of him, all seemed set fair. In March 1892, Theiler duly submitted to General Joubert his application for employment as veterinarian to the Staats-artillerie, supported by his diplomas, and waited.

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55 'Christian patience!' Zboril exhorted him, remarking that Republican affairs always went at snail's pace. Further, the General, like all the Boers, was not particularly attracted by veterinarians. He had read Theiler's letter and his brochure on Horse Sickness. The papers now lay on his desk. After two months, a clerk whose horse Theiler had successfully treated, informed him that Joubert favoured the application. There was no more masterly practitioner of inactivity (later with fatal results). The Volksraad met for a 3-month session in May; but the Uitvoerende Raad (Executive Council) would be too busy to consider such applications.

Skirmishing on all fronts, Theiler abandoned the farrier project for an attack on 'Sponsziekte' or Black Quarter Evil, an historic cattle disease then prevalent in the Transvaal and

56 recently conquered by a vaccine devised in Europe. In April 1892, he begged Lyss to send him as much as 1,000 doses in addition to instruments and other material he had ordered. If the inoculations succeeded, he could easily afford to send Lyss his fare to come to join him. Then
57 he became a member of the Agricultural Society as a pressure group likely to favour his future. General Joubert was its president.

No love was lost between Kruger and Joubert. A woolly-minded, quasi-liberal, Joubert exhibited no particular hates and was sedulously cultivated by the Uitlanders. In contrast, Kruger was a resolute politician of firm principle and concerned with the best possible administration of his fractious charge. He could not entrust it to his compatriots, rooted in their farms and incapable of bureaucracy, and was compelled to employ such Europeans as were qualified for various duties of State. They came from every country, even England, but the majority in high places were Hollanders, a position accentuated when the Netherlands Railway Company contracted to build the line to Delagoa Bay. At a time of severe economic stress and unemployment, a wave of hate long reserved for the English, began to rise among the burghers
58 59 against all foreigners, particularly the Dutch. It militated only slightly against Theiler (who carefully noted the trend of affairs); but several official heads rolled including that of W. E. Bok, temporarily State Secretary and then member and minute clerk of the Executive Council from which he was now removed. In a new capacity, he was to influence Theiler's future.

It was a turbulent time complicated by vicious influenza which levelled the old President, now fighting for his political life against a popular adversary. As a candidate, Joubert was compelled to resign as Commandant-General. Theiler hoped that he would be elected and his Staats-artillerie friend, H. P. H. Pretorius, become Commandant-General. Things were going hardly with him but with customary optimism, he passed it off as the inevitable lot of a pioneer. In
60 time, public opinion might slowly turn in his favour. Captain Hayes and his remarkable wife had been a feature of the Second Pretoria Agricultural Show opened in May. The world-famous authority had greatly impressed horse-owners with his published statements and his uncanny skill in subjugating wild horses. Mischievous sceptics provided an untameable bucking broncho for Mrs Hayes to ride but, a brilliant equestrienne, she kept her seat. 'As such a fine riding feat by any man, let alone a lady, had never before been seen by the assembled Boers', her proud husband wrote, 'their habitual stolidity gave way to enthusiasm and they warmly praised and cheered the Englishwoman. So pleased were they that the men of the Boer artillery which was the only corps that wore uniform, always saluted my wife in military style whenever they saw her.'

Theiler was there, 'dressed like a gentleman', chatting to everyone likely to prosper his cause, even appearing in a photograph of the official party at the Grand Stand. Both Dutch and
61 English newspapers used the occasion to press the Government to establish a Department of
62 Agriculture. A little later, the Volksraad rejected yet another petition from 135 Zoutpansberg farmers. Month after month, Theiler wrote urgently to Lyss asking for instruments, glass receptacles, syringes, vaccines, everything that would aid him in coming epidemics. It was all on credit – he had little money and could send only a few pounds very rarely. His friend Zboril,
63 he wrote Marie, was now ill unto death and though he still had clients in the Staatsartillerie, his papers remained in the maw of bureaucracy.

Depression deepened during 1892. Unemployment became a dire problem, particularly in
64 Johannesburg where as many as 20 or 30 workless men a day would knock on the doors of clergymen (there were no welfare agencies). Casting around for cheaper accommodation in
65 July, Theiler joined a young Government-employed Swiss draughtsman, Max Schniter of Zurich, in renting for £4 a month two first-floor unfurnished rooms from the German owning Madeira House on the corner of Vermeulen and St Andries Streets – one as a bedroom and the

66 other as a 'workroom'. They paid 10s. a month for the part-time services of a 'kaffir'. Theiler put out his plate in the adjacent Phillips' Dispensary where orders might be left, and published a 'Notice of Removal'. No orders came.

They made their own furniture and played Jass at night with other lonely Swiss in their rooms to avoid expense. With all the apparatus and equipment supplied through Lyss, the 'workroom' now resembled a laboratory. Theiler had much free time. He wrote articles which *De Volksstem* published. He taught his friend Max Schniter who knew nothing about horses, to help him in his few cases, especially in throwing the animal when he had to operate. He still had intermittent work at the Artillery Camp and elsewhere but few paid. On Saturday afternoons, they roamed the Pretoria hills collecting specimens and assembling a natural history case to send to his father. Occasionally Constançon would take Theiler to his bushveld farm in the Waterberg where he was happy shooting more specimens with his rifle resting on his new artificial hand, and rambling among the unspoilt 'Kaffirs' and vegetation.

67 He neglected no opportunity to improve his 'practice'. When the vaccine for Quarter Evil (Sponsziekte) at last came, he could not persuade the Boers to allow him to inoculate their cattle. He offered to do it free but still they refused. Even members of the Volksraad said that nothing could be done about the disease which was a punishment from God. If only he could convince them, his fortune would be made.

68 69 He haunted the Artillery Camp and talked to everyone. He read everything he could and looked for any chance that might benefit him. Through his friends in the Government, he had access to the official Reports of other African States and to the *Cape Agricultural Journal* and the *Natal Farmers Magazine*. He knew exactly what Hutcheon, Edington and Wiltshire were doing and much else. On the 24th June 1892, he saw in the newspapers official confirmation of an outbreak of Smallpox in Swaziland. On the 28th June, the Transvaal Government closed the border to quarantine the country. It was alleged that supplies of lymph for vaccination were available. Theiler took a chance. He had everything to gain and nothing to lose.

70 With the dual purpose of reminding the Government of his existence and increasing his possible usefulness, he wrote offering to make vaccine lymph if required by the threatened Smallpox outbreak and politely requesting the return of his papers. He was dubious of success but at least his application for State employment now covered two appointments – veterinary surgeon to the Staatsartillerie and supplier of Smallpox vaccine. His father had sent him a book describing the manufacturing technique. Later, when the epidemic struck Johannesburg and the Government was forced to import vaccine, Theiler tried his hand at producing lymph from four or five calves (probably obtained from Constançon). He had no money to buy more and set up a source of supply. Meanwhile he watched thousands of pounds being spent on what he was confident he could have provided.

71 72 The Volksraad ceased its deliberations, the Uitvoerende Raad concluded its meetings and the country devoted itself to a prolonged and bitter process of presidential election. No one replied to Theiler's application. He returned to experiments, assisted by Dr Knobel and Schniter, designed to devise an inoculation for Horse Sickness. It seemed his best hope and he bombarded Lyss with orders for books, journals, materials for microscopic work, bacteriological equipment, stains, section-cutters, culture-incubators, refrigerators, etc, lamely offering to pay when he could. Money was everywhere scarce but he was so confident of his success as a bacteriologist that Emma had agreed to join him after completing a year in England.

Fortune dealt him a further blow. On the 3rd August 1892, Edington wrote to the Cape Agricultural Secretary, Albrecht Fischer: 'I have the honour to inform you that I am in the happy position of being able to announce to you the discovery of the microbe of Horse Sickness.' Trumpeting his success in infecting sound horses with material from diseased, Edington rashly

forecasted the early fabrication of a substance deriving from the 'microbe' which, possibly in attenuated form, could be inoculated protectively, as in Lung Sickness and Smallpox. *The Cape Agricultural Journal* of the 11th August 1892 informed the world at large of his feat. Borthwick would continue to help him in devising the magic substance.

73 Heiler struggled on, earning, he alleged, a regular £30 a month but paid most irregularly. He was not above treating 'Kaffirs' for the interest of their cases. The Smallpox, rampant in Swaziland, seemed to have been kept at bay by the quarantining of the Transvaal. In the middle of October, Veldcornet Louis Botha of Vryheid (then part of the Republic) reported that it was rapidly increasing in his district with some fatalities. The President, campaigning in his area announced that he would see for himself and, duly saluted by a commando with a feu de joie, bravely visited the dorp on the 22nd October. The old man scored an electioneering success but no word was spoken to him by Louis Botha, newly elected to the Volksraad. He was a Joubert man.

74 Both Kruger and Joubert were ceremonially welcomed back to Pretoria with triumphal arches, commandos and decorated streets at the end of their electioneering tours, closely watched by the unoccupied Heiler, now at the end of his patience with the Government. Glanders had broken out at the Artillery Camp and upon his pronouncing that it was incurable, the Commandant H. P. N. Pretorius had said that if he could not treat it, he was no use to the Rijdende Artillerie as a horse doctor. Glanders had then become as common among the cavalry horses as fleas on a dog, Heiler wrote bitterly and he was still summoned to deal with their miscellaneous diseases. He hoped and prayed that Joubert would be elected and Pretorius appointed Commandant-General. Zboril had recovered. Soon after, he had a fit in the Pretoria Club and ceased to be a force, ultimately resigning from the Staatsartillerie in suspicious circumstances despite a plea to remain signed by 800 citizens. Heiler circumspcctly remained on good terms with Pretorius.

75 Very slowly, he was making his way. The Boers' care of their cattle appalled him. They left it mostly to their 'Kaffirs' with instructions to pour down the beasts' throats all sorts of concoctions from linseed oil to paraffin and gunpowder. With Lung Sickness (causing thousands of deaths every year), the 'boys' would filter through muslin the fluid found in a dead beast's thoracic cavity and soak strips of linen in it, then cut two slits in the skin near the base of the tail of a healthy ox and thread a strip through them. The 'serum' entered the system of the ox, rendering some degree of immunity, but produced an abscess on the site, causing the tail to drop off - a disaster in a fly-infested country. Sometimes healthy oxen were forced to drink the pleural fluid of a dead comrade. Edington, working happily in his new laboratory, was manufacturing vast quantities of Lung Sickness vaccine at 1s. a tube, supplied to and gladly used by Cape farmers while Soga inoculated thousands of cattle volunteered by real Kaffirs and sent specimens of other diseases back to Edington for 'micro-examination'.

77 In the Transvaal, the farm 'boys' were cattle-midwives and castrators paying scant heed to infection. The Boers might keep a particularly watchful eye on their horses and, for any irregularity, take them to the blacksmith or some local wiseacre. With the help of some 'Afrikanerfreunde', Heiler at length succeeded in persuading the extensive cattle-owner D. J. E. Erasmus to allow him to inoculate about 4,000 of his beasts against Sponsziekte. He did so fearfully. If the vaccine Lyss had sent him were impotent or his one-handed technique clumsy and the animals not successfully immunised, he would be ruined. Erasmus was a very influential man and, Heiler wrote apprehensively, 'the Boers would consider it no joke'. He had however had several successes toward the end of the year, especially in operating on horses and castrations, in difficult births, damaged hooves, wounds and sores. Sending only £10 a time against his massive debts, he implored Lyss to supply to him a host of bacteriological requirements, urging

him always to consult Zschokke about the apparatus, stains and other essentials. His optimism soared. In six months, Emma would be with him.

* * *

82 Theiler could see what was coming. Nature poured vials of evil over Africa South. Locusts infested the whole sub-continent, Smallpox crept steadily into the Transvaal, Foot-and-Mouth disease (in reality Blue Tongue) appeared everywhere, Rinderpest infected the cattle of the Northern Cape, Basutoland and elsewhere, and the perennial Horse Sickness began its seasonal slaughter. Hutcheon too had anticipated the onslaught of infectious diseases that could ruin the economy of the Cape Colony. He had induced his Government to provide him with four additional veterinary surgeons – Crowhurst, Pattison, Dixon and Hutchence. They arrived on the 10th December 1892 shortly after Hutcheon had caused the Cape Colonial Government to close its borders against animal traffic. Chaos followed. Far in the Transkei, Soga wrote gravely of the classic Cattle Plague – ‘Our new Colonial enemy – Rinderpest. Lung Sickness and Redwater are simple fools to it.’

83 Without an Agricultural Department, much less veterinary services, the Transvaal Government was powerless to deal with the coming calamity. While its leaders were completely pre-occupied with the final tensions and dramas of the presidential election and the restiveness now finding overt expression among Johannesburg’s Uitlanders, its servants did what they could. On the 24th December 1892, in tacit admission of inadequacy, they published in the *Staatscourant* Hutcheon’s official Notice on Foot-and-Mouth Disease, its symptoms and treatment. Its coming was inevitable. Introduced from the north, it infected cattle wintering in the bushveld. In the absence of any prohibitive laws, they were driven back to the summer farms and, according to Theiler’s outraged statement, Food-and-Mouth was brought to within 10 miles of Pretoria. The Boers would not listen to him; but many European farmers had allowed him to inoculate their cattle. It was a mild form of the disease, his colleague Cammack pronounced in Johannesburg.

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85 Not until February 1893 was the presidential election finally resolved and then only under deplorable conditions of alleged corruption and falsification. It was finally agreed that Kruger had defeated Joubert by less than 600 votes. The old policies were again entrenched. They spelt doom to Theiler’s hopes and plans. A progressive agricultural policy was essential to the survival of civilisation in Africa South. In February, Natal had managed to launch and maintain the *Natal Farmers Magazine*. In May, the Cape Government had elevated its haphazard arrangements to the full status of a Ministry of Agriculture. In July, J. B. Hellier, bald and wispily bearded with lowering white eyebrows, was appointed editor of its *Agricultural Journal* which, at 78 and long past retiring age, he raised to new heights of excellence. In June, the petition for a Transvaal Agricultural Department presented on the 10th April by no less a personage than Theiler’s enlightened friend D. J. E. Erasmus, Commandant of the Pretoria district, and his Veldcornet D. J. E. Opperman with 63 others of the Witwatersrand district, was perfunctorily rejected by the Volksraad. (The chairman of the Raad’s Petitions Committee which advised on all submissions was the respected Johannes Petrus Meijer of the large estate Klipriviersberg outside Johannesburg. He had recently been scandalised to receive from Captain Frank Rhodes, brother of Cecil, a box of ladybirds to be used on his estate for destroying Australian bug. Such expedients were considered outrageous and ungodly.)

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88 Kruger himself was not opposed to progressive agriculture but dared not defy his burghers except on high policy when he customarily staged a tantrum if opposed. When he opened the Third Pretoria Show in the Market Square and Hall in March 1893, he urged the burghers to



Church Street, Pretoria in 1892 in typical muddy condition exchanged seasonally for thick dust.



The Grand Hotel International, Church Square, Pretoria (right) in 1892 where Arnold Theiler first put up his plate.



The Raadzaal and Government Offices in splendid Renaissance style on Church Square, Pretoria, every item of whose construction was said to have been 'dragged up from Natal by ox-wagon'.



The Palace of Justice, Church Square, Pretoria in similar Renaissance style and completed some time after Theiler's arrival in the capital of the South African Republic.

89 think further than local markets and to produce for export. It was the height of the Horse Sick-
90 ness season and 200 carcasses were calculated to be lying in and around the town. The Agricultural Society immediately petitioned the Volksraad to place £1,000 on the Estimates to pay for a qualified doctor to investigate the disease. The Volksraad merely noted it.

91 With no money at all, Theiler was doing the work. Heartbreakingly, his special equipment
92 was delivered too late, the instruments were not what he had ordered and some of them broke
93 when used. He had endured further mortification. Edington, still in the same pursuit, had been
told that Horse Sickness in the Transvaal and Natal was different from that at the Cape. With
Borthwick, he left for the north, preceded by a request from the Cape Colonial Secretary to his
counterpart Dr W. H. Leyds that he be accorded coöperation. Leyds instructed the Mining
Commissioner J. L. van der Merwe to call on Edington when he arrived in Johannesburg on the
10th February; but van der Merwe sent his newly-appointed Health Officer, Sir Drummond
Dunbar Bart, who was unable to find any cases. Privileged to telegraph free, Edington then went
to Pretoria where further assistance was given him; but, as it was then early in the season and
unprecedented rains were falling, no case could be found. He then went on to Wiltshire in
Natal with better result, returning to Graham's Town toward the end of February when he
was instructed immediately to institute arrangements for producing Smallpox lymph vaccine.
He ordered the latest costly equipment from Europe and was in a position to produce in bulk
by June.

94 Unfavoured in any way and hampered by heavy handicaps, Theiler laboured in his spare time
to prepare a paper on Horse Sickness for his venerated Professor Zschokke. (By the end of May,
he had completed and sent it. Zschokke was pleased and wrote encouragingly. They were the
first kind words he had had from Switzerland. His elation was pathetic.) No one had paid the
slightest attention to his application for appointment to the Staatsartillerie or to his offer to
make Smallpox vaccine. The epidemic was raging in Johannesburg and Dr Messum was ap-
pointed to a special committee in Pretoria. Theiler stood on the sidelines. He had been for
two years in Pretoria and his practice showed some sign of reality, still producing about £30
a month of which every available penny was sent to Switzerland to pay for his research equip-
ment. His optimism was indomitable. It was now only three months before Emma would come.

95 Conditions were exceptionally bad. What storms and floods failed to destroy, the locusts again
ate. Everyone was in debt. Constançon was forced to sell his bushveld farm in the Waterberg.
Rinderpest, apparently diminishing in Africa South, was flaring violently in Central Africa,
destroying the wild animals as much as the domestic. The Imperial German Government sent a
Veterinary Commission to East Africa. Hutcheon at the Cape watched the situation carefully –
96 he knew the danger and caused his Government to prohibit the import of cattle from any of the
affected regions. The South African Republic took no notice. 'The Government', Theiler later
wrote flatly to his father, 'is rotten and all sorts of dirty affairs are coming to light . . . I too suffer
under the crisis but we hope for the best.'

He was seldom paid and often thwarted and derided for his diagnoses but he maintained
his professional integrity. Called to a case of 'Nieuwe Siekte', he would diagnose highly in-
fectious Glanders, state that it was incurable and request that the animal be destroyed. Owners
laughed at him but Theiler clove to his ethical duty. Upon one occasion, he reported a badly-
infected horse to the Veldcornet who ordered it destroyed. Theiler was invited to do a post-
mortem in the presence of the owner and two witnesses. Proving that the horse had Glanders,
he was mocked for failing to grasp that it was only 'Nieuwe Ziekte'. Having invoked official
authority, he felt obliged to justify himself and referred it to the best-recognised authority in
Africa South, Duncan Hutcheon at the Cape. After microscopic examination of the material
sent him, Hutcheon confirmed the diagnosis and Theiler triumphantly published his letter and an

97 account of the whole affair in *The Press*. The gathering storm of evil was soon to bring them together.

98 During May, Theiler had used the return of his friend Arnold Sturzenegger to Switzerland to reopen communication with his parents. His need was to prepare the way for his marriage to Emma, then with a family at Torquay and getting ready to leave. His carte de visite, carried by Sturzenegger, was a grisly collection of natural history objects – the skin of an iguana (or leguan, the biggest lizard) the head of a rietbok and the horns of a springbok, the skull of a Kaffir murdered in the Waterberg ('which should be valuable to an anthropologist'), copper bangles from his own 'boy' and a tin box full of snakes, lizards, a bull frog, a young leguan, a chameleon, cockroaches, locusts, a praying mantis, crabs and ants. He knew his father would be enchanted but lacked the courage to mention Emma in his covering letter. (Unknown to him, she wrote his parents on almost the same day.) Sturzenegger, he said, would give them all the news and confirm how busy he was on his Horse Sickness article for Zschokke's Swiss Veterinary Journal. Nothing is definitely known but all signs point to Sturzenegger's having told his father about his lost left hand. Thenceforward Franz wrote his struggling son in uncritical and cordial terms.

99 Now a woman of 25 years and great strength of character, Emma wrote her future mother-in-law of her impending departure 'of which Arnold will have told you', asking politely whether there was anything she might take. She well knew of family disapproval causing Arnold's flight from home. It was Franz who answered guardedly but without hostility. The Theilers were stubborn people and if Arnold had made that decision, there was nothing he could do. Emma sailed on the 3rd June 1893 and while she was at sea, Arnold, seized with compunction, wrote his family with extravagant regrets about neglecting his filial duty through pressure of work and announcing his marriage within a few months. 'The choice of my heart, as must be known to you, is Emma Jegge' and he dilated upon her virtues and her longing, as an orphan to be accepted in the Theiler family. At that moment, the choice of his heart (who was taken as an English-woman on the ship) was in great pain from an arm swollen and abscessed by a Smallpox vaccination given on board, and wondering whether she would be well enough to take the train at Cape Town for Pretoria.

100 The Smallpox epidemic had evaded control by clumsy quarantining and, while of minor incidence in Pretoria, was spreading rapidly in Johannesburg. It was a mild form which caused few fatalities but the public became increasingly alarmed. On the 26th June 1893, Arnold met his bride at Park Halt, as the Johannesburg station was called, and continued with her in the train to Pretoria (the link line had earlier unobtrusively been opened). It was a highly emotional moment when Emma first caught sight of her amputee future husband. There was little that he had not told her in letters and no strangeness between them despite long separation. There was however no end to the talking to be done. He had arranged everything. For the first week in Pretoria, she would stay with Swiss friends, the Fevriers, where he could see her every day and then she could live for nothing on the Constançon farm at Les Marais, keeping Madame Constançon company with her three small children while her husband concluded the sale of his farm in the Waterberg.

101 Emma, wearied by the depressing train journey through the Great Karroo, was much surprised by Pretoria – 'the garden of South Africa', she was told though it was already wintry cold. Short in stature, composed and purposeful, she was taken everywhere and met all the Swiss community. 'We are blissfully happy', Arnold wrote his parents, having compounded their plans and reaffirmed their faith in working together with zeal and frugality toward a better future. True to her word, Emma wrote too – shocked at the privations Arnold had endured, 'how meanly he had lived', what bad luck he had in the dilatoriness of the Government and the

brutish refusal of the Boers to utilise his skill, 'I now marvel that he did not become completely discouraged', how he had at last made a start and in summer, might improve his position. They should marry at once of course but could not afford it. Emma had already heard of a job at £4 a month and would enquire further. The cost of living in Pretoria was much higher than in Switzerland. She made no mention of his hand.

104 Arnold trod on air. The love of his life was with him – competent, resolute, assured. No longer would he face the future alone. Less than a month after her arrival – on the morning of Thursday the 19th July 1893 – a telegram was delivered to him. It came from the District Surgeon of Johannesburg, Dr Cecil Schulz asking him to come to Johannesburg for an interview with the chairman of the Smallpox Committee, J. L. van der Merwe, Mining Commissioner. He left by the next morning's train.