

## CRESCENDO 1896-1897

1 IMMEDIATELY AFTER the Conference, Rinderpest spread with terrifying speed, making a non-  
 2 sense of all impediments and prohibitions and emphasising the need for protective immunity.  
 3 Its move was to the south where it overwhelmed Hutcheon, and to the east where it suddenly  
 appeared in the lower Transvaal at Wolmaransstad and Schweizer-Reneke. Douw du Plessis and  
 Theiler left Vryburg by private railway coach and cart to visit the area and ordered hundreds of  
 animals shot. The Schweizer-Reneke farmers begged Theiler to have the Government instruct  
 him to find a cure as all 'remedies' were useless and merely spread the disease. He included the  
 request in the report on the Conference which he and du Plessis duly presented. The Executive  
 Council immediately appointed du Plessis a special Rinderpest Commissioner at £600 a year  
 with allowances for the whole Western Transvaal from Marico in the north to Bloemhof in the  
 south. For Theiler, it had other plans.

4 In Buluwayo on the 26th March in the midst of the first devastation, he had telegraphed his  
 Government that the Matabele Rebellion prevented his devising an inoculation against Rinder-  
 pest. On his return, he had confirmed in his written report of the 10th April his readiness im-  
 mediately to proceed with the work but pointing out that owing to the danger of infection, he could  
 not do so in Pretoria but only at some place on the north-western border where sound and diseas-  
 ed animals would be available for experiment. No attention had been paid to his offer and, dis-  
 tracted and later obsessed by the prevalence of amateur 'cures', the Government continued to  
 ignore it for six months.

5 In Watkins-Pitchford however, Theiler had found a kindred soul, first in the Waterberg when  
 he had demonstrated the disease to an eager pupil and then at the Vryburg Conference when  
 Pitchford had spontaneously exclaimed that the 'serum treatment' was the only possible solution  
 to the problem. The Cape - convenor of the Conference - had become so single-mindedly  
 addicted to keeping the disease out of the Colony that it had neither considered the possibility  
 nor included Edington, the only qualified bacteriologist in South Africa, in its delegation. Theiler  
 and Pitchford were however of one mind in the matter and no doubt discussed it fully at all  
 opportunity. Upon his return to Pretoria on the 9th September, Theiler raised it persuasively  
 with his superiors. He was on a batter's wicket. Total disaster faced the Transvaal and its rulers  
 became panic-stricken. Rinderpest which had ruined the northern districts, had inexorably  
 moved southward. Carcasses were reported all around Pretoria. The 'cures' and 'inoculations'  
 which the best-intentioned and most enlightened men were trying, together with the quacks, had  
 all failed though the attempts continued. Tens of thousands of pounds were being spent on  
 food for the starving and on transport. Every day, conditions worsened. Theiler made his  
 case.

On the 13th September 1896, he wrote his parents - 'My next task is again to devote myself  
 to a series of experiments to determine whether it is possible to combat the disease with a serum  
 injection. The Government has given me unlimited credit to achieve this object. The Natal  
 Veterinary Surgeon will accompany me and be my co-worker. We shall investigate the matter  
 strictly scientifically and then publish our results. We shall take our bacteriological laboratory  
 with us into the Bush. The place of our activity this time will be the Rustenburg district (Marico)  
 where we hope at the same time to be able to hunt big game. I expect to be away for three  
 months.' It occurred to no one that two veterinary surgeons - 'horse doctors' - intended im-



personating highly-qualified bacteriologists and attacking a problem that had baffled the whole scientific world, and that the expedition in fact rode entirely on the back of Theiler's personally-acquired 'well-equipped laboratory' and prodigious private study.

6 Pending its departure, Theiler had to deal with his Government's part in the Conference resolutions (as well as an outbreak of Glanders in Johannesburg which was surrounded by the carcasses of horses and donkeys dead from Horse Sickness). The scared men on the Executive Council willingly implemented the recommendations in a Proclamation issued on the 23rd September which dealt with the disinfection of natives, hides and skins, etc and the adequate burial of carcasses (frequently the source of infection when dug up by scavengers and wild animals). In their desperation, they threw the door open to anyone purporting to have a preventive and encouraged experiment by all and sundry.

7 It fell to Theiler to plan a 'Disinfection Station' for all animal material (hides and skins were a sizeable item in the crippled agricultural economy) and to order vast quantities of Jeyes Fluid, carbolic acid and other disinfectants while carefully organising his own expedition. His specifications were very clear and detailed and he offered to train a manager for the Station. Its operation was a matter of extreme urgency but the over-burdened Krogh (who subsequently drew an extra allowance for the avalanche of Rinderpest work) and S. Wierda, head of Public Works, trafficked so conscientiously with tenders and details that the Disinfection Station at Daspoort outside Pretoria was not completed until the 9th January 1897. Built largely of corrugated iron on a site chosen by the landdrost C.E. Schutte, it became one of the most historic edifices in Africa.

9 Moving rapidly south-eastward toward the Free State and Cape, Rinderpest now produced universal chaos and bitter vituperation from republican and colonial citizens. New outbreaks in the Transvaal called Theiler away in the company of C. E. Schutte, nominally his superior. Occasionally he would meet his friend D. J. E. Erasmus at committee meetings which fearfully discussed the Boers trekking back from winter grazing in the Bushveld, the natives and whites starving in the north and the uncontrollable spread of infection. Natal was busy with its fences and, still apparently scatheless, willingly seconded Watkins-Pitchford for vital research, agreeing to share the cost equally with the Z.A.R.. Desperate, the Free State asked its colleague Republic for 'one of its veterinary surgeons' and the Z.A.R. telegraphed back that it had only one - Mr Theiler - and he was away. In common cause, Hutcheon allowed Otto Henning to leave and on the 1st November 1896, he became the Free State's first veterinary surgeon. As the epidemic swept toward the Cape Colony, public temper grew ugly. Farmers openly attacked the Prime Minister, Sir Gordon Sprigg for inertia and hankered after the dynamic leadership of Merriman. Hutcheon continued his vain fight and Edington was ordered into the arena to find a means of immunising against Rinderpest and to forget about Horse Sickness.

14 On the 1st October 1896, Theiler and Watkins-Pitchford set forth in a veritable caravanserai. Their mule-drawn trolley carried the parts of a tin shanty with a large window that could be assembled to serve as a 'laboratory'; two large tents for themselves; £50 worth of provisions to last them and their two assistants for three months; the paraphernalia of 'a whole laboratory with incubator, etc.'; bottles and jars of chemicals, medicines and stains; guns and ammunition; cameras; and other impedimenta for a prolonged sojourn in the wilderness. Theiler was voluntarily assisted by a Swiss patissier Frei who undertook to do the cooking. Pitchford's assistant was a young postal clerk, Vynor Clarens. Their route covered about 150 miles from Pretoria through Rustenburg, directly north to the eastern spur of the Witfontein mountains known as the Dwarsbergen, about 20 miles from Ramoutsa on the Bechuanaland Protectorate border - a site in the Marico district chosen by Douw du Plessis and his colleagues as suitably remote but well endowed with cases. (Its original cattle population had been 30,798 of which 16,808 had



died of Rinderpest, 4,027 had been shot and 6,766 survived.) There they outspanned with the assistance of border guards and local natives.

They appeared a singularly incongruous couple – Theiler with his swarthy complexion and continental imperial, his guttural English, slight swagger and determination to hunt for the pot in between his official duties; Watkins-Pitchford the very picture of an English vet. in breeches and gaiters with a billycock hat, clean-shaven, blue-eyed and voluble. They had however a great deal in common, being much of the same age (Pitchford was two years older), interested in military service (Theiler less than Pitchford) and wholeheartedly dedicated to the quest on which they had embarked. Both were on all hands remarkable personalities, particularly Pitchford whose versatility blossomed under new conditions.

17 The third son of a London vicar, Pitchford's first and lasting love was the British Army and all things military, particularly cavalry. At the age of 18, he was due to sail for India in the regiment in which he had enlisted when his father bought him out and directed his energies to qualifying as a veterinary surgeon. A man of dynamic enthusiasms, he then practised at Sandhurst before succumbing to the glamour of 'Colonial appointment' as the head of a department in Natal. He wrote with great facility, sang, played the organ, painted in water colours and, of conspicuous ingenuity and inventiveness, later devised many gadgets for the Army. Like Theiler, he had abandoned his wife and child in a boarding house in Pietermaritzburg where they were reasonably content. Emma, on the other hand, felt herself sinking beneath the burden of her responsibilities, alone in a tin house with a little boy and a six week old baby, for an expected three months. It would, she feared, prove too much and she would have to abandon the small-holding and move to town. She stayed.

18 As Theiler and Pitchford began inoculating sound cattle with blood serum from recovered beasts in the hope of producing immunity, Edington set forth from Graham's Town on the 8th October on a similar mission. The place selected for his experiments was the dangerous district of Taungs in the Northern Cape where, immediately after the Vryburg Conference only five weeks before, Hutcheon had been threatened with death by the infuriated natives armed with guns and firing them promiscuously. Cases of Rinderpest remained and sound cattle could be brought from Kimberley. There was however no 'accommodation' – only a railway siding.

19 Edington accordingly was provided with a saloon railway coach whose partitions he demolished, converting the interior into a small laboratory. This was shunted on to a blind line at Taungs and a fenced camp made around it. The unit arrived on the 11th October and Soga brought him his first Rinderpest-infected beast on the 14th. It was installed in another fenced camp four miles distant. Edington and his assistants, W. Robertson and J. M'Namara bivouacked in small patrol tents with native guards at hand near the siding. Their discomfort was great, the average temperature being 100° in the shade; but with Soga's continuing assistance, they devoted themselves to isolating the Rinderpest 'microbe'.

20 Its rapid southward journey accompanied by a destructive invasion of locusts now struck panic into the rulers of the Cape and Transvaal, causing them to call upon their people to prostrate themselves before the Lord. A simultaneous Day of Humiliation was proclaimed on the 16th/18th October in the whole Transvaal and Cape Colony. All shops were closed and businesses suspended. Kruger himself went to the northern Transvaal to examine the devastation, the distress and demoralisation of his people and the emaciated and dying natives.

21 The Cape Government now bent before the blast and adopted a counsel of despair. It approached Baron von Schuckmann and enquired whether he could urgently obtain the services of the great Robert Koch. It was a direct expression of no confidence in Edington but the pressure was heavy. The suggestion had come from Dr J. H. M. (later Sir Meiring) Beck, founder of the South African Medical Association who, qualifying at Edinburgh and doing post-graduate

work at Berlin and Vienna, was convinced that Koch was the country's only hope. A professional man of the highest standing at the Cape, he wrote to his colleague (and co-student of Edinburgh, Berlin and Vienna) Dr T. N. G. te Water, then Cape Colonial Secretary, urging his friend to get Koch at all costs. Te Water was very dubious but persuaded Sprigg to open negotiations.

The German Consul-General cabled his Government and by the 26th October, was able to advise Sprigg that Koch was willing but required an early answer. Before it could be sent, Koch cabled further to the Consul that he was prepared to sail on the 21st November and (ominously) that success was always doubtful in difficult and tedious scientific research. He would be attended by three others (subsequently revealed as his wife, tactlessly captioned 'Madame Koch', and an assistant, the 35-year-old Dr W. Kohlstock and his wife) and would require travelling expenses for all four, £200 for equipment and a daily rate of £10 for the whole party. Sprigg wasted no time in 'gladly accepting' the offer and 'trusting that the learned Doctor will be able to start for this country with the least possible delay'.

23 On the 3rd November, the news of coming salvation was published throughout the country and on the same day, Edington telegraphed the Cape Agricultural Department that he had isolated 'the Rinderpest microbe'. Hutcheon, shooting cattle in the De Aar district, pronounced his belief that his colleague would devise a serum treatment. Unlike Theiler, Edington could not remain single-mindedly at his task. His assistant-in-charge at the Institute, Dr R. S. Black resigned and he was forced to shuttle between Taungs and Graham's Town until the replacement  
24 Dr Purvis arrived from England. He publicly stated however that although Russian and other  
25 scientists had similarly isolated 'the fatal bacillus' but had been unable to reproduce Rinderpest with it, he would succeed.

While the Cape urgently negotiated for Koch, the Free State evolved a similar plan to import a bacteriologist and invited the coöperation and joint financial responsibility of the other territories. The Z.A.R., notwithstanding Theiler's current work, agreed; but the proposal lapsed  
26 when all were asked to share the cost of Koch. A similar drastic attempt by Natal to import the  
27 medical Dr W. J. Simpson who was dealing with Rinderpest in Calcutta, India, was likewise  
28 abandoned. By then, Watkins-Pitchford, after only three weeks' work, had returned to Pietermaritzburg to meet his four young veterinary surgeons - W. Stapley, F. A. Verney, Baxter and Webb - two arriving early in November and two at the end. He had faith in the cordon sanitaire protecting Natal and wrote portentously about 'the scientific investigation upon which I have been engaged in the Marico and which is still far from complete'. He did not mention leaving Theiler alone for six weeks on dreary experiments until he returned with Verney in the middle of December.

The desperation of the times with its mindless recourse to all or any kind of 'remedy'; the enormous State expenditure on donkeys, mules and food for the starving; the dreadful scenes which he was then witnessing in the north, caused Kruger himself to lose faith in Science and to propound a 'cure' with all the force of his position. He caused all landdrosts and district chairmen of Rinderpest Committees to circulate it:

29 'As soon as the beast becomes sick, one teaspoonful of podopyllin (a bitter yellow resin with cathartic properties deriving from a ranunculus root) must be administered in a half-bottle of water. On the following day, a piece of tobacco about three inches long must be chopped up and soaked in a bottle of water after which the water must be given to the animal. If, on the third day, the eyes of the animal are still watery, another three inches of tobacco must be cut and soaked in a bottle of water which is to be given as before. On the fourth day, a small mug of paraffin is to be administered. When the beast purges badly, a dessertspoonful of the bruised bark of the root of the incense tree must be mixed with a dessertspoonful of alum and a bottle of water and



allowed to draw for 12 hours. Then add to this a handful of flour-meal and give it to the animal. If the purging does not stop, repeat the above dose. If the animal does not eat well, repeat the paraffin oil as described above and clean the mouth out with salt.'

30 An impressive percentage of 'cures' were claimed. In the chair at a Rinderpest Conference of  
31 Landdrosts, D. J. E. Erasmus under orders propounded Kruger's prescription on the 28th  
32 October and brought half a bag of the bark of the incense tree for common use. Everybody was  
33 now encouraged to experiment and try 'remedies'. Hutcheon mocked Kruger's 'cure' (which  
emptied the chemists' shops of Podopyllin) and Theiler dined out on it until the end of his days.

34 Hutcheon had taken his stand on the Orange River and shot all suspects south of it. 2,300  
police guarded the northern frontier of the Cape Colony. All eyes were on Koch who coöperatively  
35 managed to leave earlier, sailing on the 14th November 1896 from Southampton. He had  
received, he said, no reliable information about Rinderpest at the Cape - 'nothing whatever -  
what I have to do at first is to find the real germ of the disease . . . but it may be that our scientific  
methods are not sufficiently advanced. It must not be forgotten that the germs of smallpox  
and canine rabies have not yet been found either . . . Nobody has hitherto tried to investigate  
the causes of Rinderpest so we have a perfectly new field before us.'

36 Emma retailed the news to her parents-in-law - 'The Government of the Cape Colony have  
summoned Professor Koch from Germany. They have called on the highest authority although  
they themselves have had a bacteriologist (Edington) in a well-equipped laboratory for years  
already. Nonetheless Arnold is already well ahead and should have some results before Koch  
can begin his work here. I am really excited about what the future can bring for us.' Arnold  
37 reacted more soberly - 'We shall see what Professor Koch can evolve. That a method of inoculation  
can be found here in a few months when in Russia, learned men have for years been studying  
and experimenting without producing anything, I can hardly believe.'

38 Toiling alone in the sub-tropical Bushveld with his untrained Swiss and Pitchford's unscrupulous  
Clarens, Theiler had mounted a varied battery of experiments during his 7 weeks stay. He  
had prepared a serum from sick animals, attenuated it and injected sound. Some survived and  
were 'salted' for an indeterminate period. Others died. He thought the serum was contaminated  
but could purify it only with a suction pump at home. He tried numerous variations - inoculation  
with blood mixed with carbolic acid, with dried blood, with Rinderpest and Horse Sickness sera  
mixed as the latter killed the former, and so on, also using sheep and goats as experimental  
animals. He injected 'salted' oxen with highly-infected blood to increase their immunity and  
39 derive from them a more potent serum. He rode constantly among his fenced camps to ensure  
*that his black and white assistants safeguarded the rigid conditions of experiment. He worked  
from dawn until late at night, shooting only for the pot and having no time for his beloved  
hunting though big game abounded. The mounted police occasionally brought him letters and  
sometimes the camp was short of food.*

40 Toward the middle of December, Pitchford came back after six weeks' absence, accompanied  
by F. A. Verney, the journey taking 12 days from Natal owing to the Pretoria-Marico section  
41 being undertaken by ox-wagon. Verney rendered only a month and a half's service before succumbing  
to malaria at the end of January 1897 and took no further part in the work. With Pitchford  
in charge of the experiments, Theiler could snatch ten days leave to report to Kruger in  
42 Pretoria ('the President was very satisfied with my work and extended the time to enable me to  
develop my experiments'), to make use of his laboratory and to celebrate Christmas with his  
family. He was very hopeful that his hyper-immunising serum would be effective but no one  
could know for how long.

43 Rinderpest was in Pretoria and 'doctoring' with the most improbable ingredients was done  
44 by all and sundry. (In Bechuanaland, high success had been claimed for inoculation with a



45 mixture of blood, gall and 'swelling from the fat gut of a beast that had not long been sick' – a specific later promoted by a farmer, Grobler, in the Transvaal's Waterberg.) There was also typhoid and dysentery with many deaths; but in the safety of Les Marais, the family remained well. Arnold, after ten weeks' absence, found them much changed. Restrained by Emma from 46 leaving before Christmas, he departed for Marico on Boxing Day. He intended testing his powerful serum, produced from calves like Smallpox vaccine, on a thousand cattle.

47 Both Arnold and Emma had noted in their letters abroad the unpleasant atmosphere that prevailed in the Transvaal. They wrote of 'talk of war', 'a revolution in Johannesburg' and other rumours, ascribing them to the aftermath of the Jameson Raid. The practical coöperation of the South African territories in some matters of common concern, notably Rinderpest, belied an underlying distrust and a desire unilaterally to pursue local ends. The Z.A.R. was arming fast and visibly. The Staatsartillerie had been extensively reorganised and by Order No. 771 of the Executive Council of the 1st September 1896, a Veterinary Surgeon was temporarily appointed to it. Theiler expected to fill the post when disengaged from his experiments. Great secrecy surrounded the building of the forts by French and Italian firms. The armaments would come from France and Germany. The whole orientation of the Z.A.R. was toward playing its own hand and deriving its requirements from Europe – anywhere but England, directly or indirectly. This policy, suddenly and irrationally, entered the Rinderpest field.

48 On the same day (17th November) that the Cape Governor formally advised the Z.A.R. (a contributor to costs) of Koch's setting sail, the State Secretary received a letter from the French 49 Consul in Pretoria, S. Aubert, informing him of an individual in Johannesburg friendly with a French bacteriologist and pupil of Pasteur who, noting the Rinderpest outbreak in the Transvaal, was willing to come to devise a cure as he had for other animal diseases. He required an advance of £1,000/£2,000 recoverable from the sale of the cure. The State Secretary sent for Aubert who revealed that there were really two pupils of Pasteur, one a professor. Within a week, 50 a cable had been sent asking them to come as quickly as possible. A month later, M. Jean Danysz and his assistant, Dr Jules Bordet sailed from Southampton on Boxing Day when Theiler began his return to Marico.

Koch in the meantime had landed in Cape Town on the 1st December, saluted with the pomp and deference due to a great man – a rôle he assumed with aplomb. Awaiting him was a letter 51 from Edington offering him 'all the assistance and resources at my command'; but his Bacteriological Institute at Graham's Town was of course still remote from the active Rinderpest scene. Among the Departmental officials who welcomed the aging sage (Koch was then 53, bearded and bowed from his microscopic work) was the recently-appointed Cape Medical Officer of Health, Dr George Turner who, in the absence of Hutcheon on the Rinderpest frontier at the Orange River, had been detailed to act as his cicerone.

52 In appearance, Turner was more teutonic than Koch and eleven years his senior though abounding in energy. Stocky, bull-necked and bullet-headed, his somewhat puffy face was ornamented by an up-turned Kaiser Wilhelm moustache. His manner was energetic and impatient; his knowledge of public health extremely wide; and his enthusiasm for his work unlimited, even to opposing the highest authority. The love of his life was the study and alleviation of Leprosy. Of the three days Koch spent in Cape Town, Turner purloined one to take him the choppy voyage to Robben Island to show him the Leper Institution. Turner so conveyed his 53 own ardour that Koch shortly wrote to one of his most beloved disciples at the Berlin Institute for Infectious Diseases, the 28-year old Wilhelm Kolle, to persuade him to become the director of the Cape Leprosarium – an overture which had a significant result.

The English-trained Turner had spent a year in France studying Smallpox and other epidemic diseases on which he became an authority. He was therefore excellent company for Koch whose



- party he accompanied by train to Kimberley on the 3rd December 1896 while Hutcheon completed elaborate arrangements to accommodate the great man in work and recreation. Hutcheon had gone immediately with his problem to the De Beers Diamond Mines and within hours, they had converted the Victoria Compound, a large wood-and-iron building some miles out of town, into a commodious laboratory equipped even with outside rails for conveying carcasses for autopsy. The grounds were subsequently fenced into 'camps' for the 20 head of cattle, 10 merino sheep, 10 Cape sheep, 11 Angora goats, 10 Boer goats and other livestock required by Koch (with the exception of certain antelopes which Hutcheon was unable to find for him). The Company regretted being unable to provide living quarters but Hutcheon found 'a small charming villa in the famous Diamond City', according to Koch, in which, despite the heat, his menage was entirely happy. (Some months later, overcome by the humid heat of India and Tanganyika, he longed for 'Kimberley's wonderful climate'.)
- 54 The party arrived in Kimberley on the morning of the 5th, having been joined at De Aar by the voluble Edington. Hutcheon met the train and showed Koch his arrangements. Otto Henning, lent by the Free State because he was German-speaking (and temporarily replaced by one of Hutcheon's men) arrived in the afternoon. Beguiled by Edington's blarney, Koch agreed there and then to take the train north to Taungs with Turner, Kohlstock and Henning to see the work he was doing. The German sage was not lacking in energy. They arrived the next morning and Koch met Soga who told him that the natives of Taungs had lost 20,000 head from Rinderpest and had driven the remainder into the mountains to save them. After post-mortem examination of a suspected case, Koch gratefully received from Edington some cultures of the 'germ' and returned with his party to Kimberley, delegating to Henning the management of the Compound.
- 55 The whole sub-continent waited while the wizard worked. Hutcheon took him to the Free State and to farms near Kimberley to show him typical cases. Koch marvelled at the inoculation of garlic into the dewlap and the drenching with carbolic and petroleum as 'cures'. Methodically reporting to the Cape Government, he wrote that he had had no success in reproducing Rinderpest with Edington's cultures; but the Englishman had now injected two beasts in his presence with 'the microbe' grown in bouillon and Koch himself another. In due course, Koch declared it ineffective and devoted himself to his own researches. There was some feeling in England that a Colony had employed a German to help them and that veterinary science had been disparaged.
- 56 With Watkins-Pitchford and Verney, Theiler toiled on in the Marico with occasional recognition in the Press. He was sure now that the powerful serum would confer lasting immunity. They had devised the expedient of mixing it with the blood of a sick animal. The simultaneous injection of the 'germ' and its killer made an ox slightly off colour but it soon recovered and was thenceforward actively immune. It was necessary now to test the treatment against 'live' and not injected infection in numerous cases over a period of time. They believed that resistance to virulent blood did not prove that an animal was protected from contracting the disease from other animals. Few except the police and the district officials visited their remote camp. No one except themselves knew the significance of their work. Once a man came (Herman Eugene Schoch, later Surveyor-General of the Transvaal) who had helped to build the now-useless fence on the nearby border. He watched what they were doing and later recorded in a notebook - 'Theiler told me that they had discovered a satisfactory vaccine but that he did not wish to make it public before he had tried it out for some time so that there should be no mistake about its efficacy.'
- 57 Behind his back, the Z.A.R. was playing power politics to assert its independence of Colonial collaboration. On the 19th January 1897, M. Jean Danysz and Dr Jules Bordet arrived in Pretoria. A telegram was at once sent ordering Theiler to return immediately to assist them. On
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*The Theiler Home at Les Marais in the middle of 1896 with H. Watkins Pitchford (right), Emma holding the infant Gertrud and Margaret on the lap of a friend – taken by Arnold Theiler.*

*H. Watkins Pitchford (left) and Theiler (right) reading a newspaper brought by a Z.A.R. police guard (centre) entrusted with preventing movement of cattle. Theiler and Pitchford were scientifically investigating Rinderpest near Marico in the Rustenburg district toward the end of 1896.*







*Theiler the hunter, shooting for the pot, when testing spurious Rinderpest 'cures' in the Waterberg, rife with the disease among native cattle, in July 1897. (Note the cumbersome wagon and Theiler's ability to hold a guinea-fowl with his artificial left hand.)*



*The grand assault on Rinderpest at de Beers' Victoria Compound, Kimberley – Robert Koch (seated) with Duncan Hutcheon standing behind him; the obtrusive and unpopular Frau Koch; and Dr Kohlstock with Otto Henning standing between them.*



63 the 20th, the Executive Council voted 'the French experts' their £2,000 'to investigate cattle diseases' and, escorted by the French Consul and Veldcornet Melt Marais, they began looking for a suitable place to begin operations.

64 'The Government of the South African Republic did, it is true, coöperate with the Natal Government in making some investigations during the end of 1896 and beginning of 1897', reported C. B. Lloyd, 'but the Government did not hesitate to recall Mr Theiler, their veterinary surgeon, and his party to Pretoria at a few hours notice, just as the investigations were assuming a promising character. The Principal Veterinary Surgeon for Natal was thus left to carry on the work in the best way he could without any official recognition from the Transvaal authorities.'

65 At the end of 1897, Watkins-Pitchford was recalled and returned to Natal to combat threatened infection.

Theiler arrived in Pretoria on the 21st January 1897.