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Annual Meeting Of The Australian Veterinary History Society
The Australian Veterinary History Society will meet in Canberra on Monday 3 May 2004 as part of the AVA Annual Conference.

We will welcome all members and colleagues to this meeting for the opportunity to renew or to forge friendships, to hear four speakers and later to enjoy a convivial dinner.

PROGRAM
Monday 3 May

8.30 - 10.00 Meet at the Convention Centre for a visit to the Max Henry Memorial Library of the AVA and the Australian Veterinary History Collection

10.00 - 10.30 Morning tea

10.30 - 12.30 AVA Plenary Session and Conference Opening

12.30 - 1.30 Lunch

1.30 - 2.15 Navel Blazing: a History of Moxibustion
JT Faragher, Canterbury Victoria 3126

2.15 - 3.00 The Artful Veterinarian, AAHL, and the location of Quarantine
J Auty, Melbourne Victoria 3001

3.00 - 3.30 Afternoon tea

3.30 - 4.15 History in the Making
Dr. C. C. Clark, Australian War Memorial, Canberra, ACT

4.15 - 5.00 Paper to be notified

5.00 - AVHS AGM

7.30 - AVHS Dinner – to be arranged

Tuesday 4 May

On Tuesday 4 May, visits to the Australian Archives, the National Library and the Australian War Memorial have been proposed. The Australian War Memorial has been contacted and a guided tour for a group of 15-20 has been arranged for when the AWM opens at 10 am. They have noted our interest as veterinarians in animals, including donkeys on Gallipoli and veterinary field hospitals in France in WWI. There is small charge. There are two cafeterias where lunch is available, unless we return to the Convention Centre, where lunch is provided from 12.30 pm.
12th Annual General Meeting of the Australian Veterinary History Society

Canberra, 3 May 2004 at 5 pm

1. Present
2. Apologies
3. Minutes of the 12th AGM of the AVHS
   These minutes were published in the Australian Veterinary History Record, no 37, July 2003.)
4. Business arising from these Minutes
5. Report of the President, Dr JT Faragher
7. Report of the Honorary Librarian of the Australian Veterinary History Library, Dr R Roe
8. Report of the Honorary Editor of the Australian Veterinary History Record, Dr IM Partonson
9. Election of Office Bearers
   President
   Secretary/Treasurer
   Librarian
   Editor
   Committee - three members
10. General Business
11. Location of next meeting of the AVHS
   (The AVA Conference will be held at the Gold Coast Convention Centre, Gold Coast on 15 - 20 May 2005)

ABSTRACTS OF PAPERS

Novel Blazing: a History of Moxibustion
JT Faragher, Canterbury Victoria 3126

Moxibustion, with its more popular derivative, acupuncture, originated in China before the second century BC, and was later adopted in Japan and south east Asia. This Chinese Traditional Medicine was taken, in the seventeenth century, to Europe, from where it percolated eventually to Australia, where ignorance of moxa at the umbilicus has been used in the relief of acute abdominal distension in wallabies and kangaroos. The transmission and erratic adoption of the practice and the misunderstanding or ignorance in western countries of its theoretical basis will be discussed.

The Artful Veterinarian, AAHL, and the Location of Quarantine
J Aury Latrobe St, Melbourne, Victoria 3001

In 1859 the outstanding veterinary scientist of his time, Graham Mitchell, watched the farmers, politicians, bureaucrats and the medical profession of Victoria combine to release Contagious Bovine Pleuropneumonia on the cattle herds of Victoria and subsequently on the whole eastern cattle industry. Mitchell spent the opening year of the 1870's in India. He returned to Victoria convinced that without an adequate quarantine, the southern continent was open to the diseases that racked India.

Mitchell appealed to a variety of Victorian leaders to establish a quarantine service but in the face of the insurrection of EM Curr, nothing happened. Then occurred the Foot-and-Mouth incident at Werribee and quarantine became a reality. I have commented on Mitchell's diagnosis elsewhere. The message to the astute Mitchell was probably clear inertia could be overcome by crisis, factual or not.

The quarantine services came under the central organization of the Commonwealth at Federation. Nothing much else happened since there was no strong hand on the tiller and animal disease was in the administration of the medical personnel of the Department of Health. 1859 was revisited.

With the incursion of Rinderpest into Western Australia, a coordinating veterinary presence was required. It was unfortunate that WAN Robertson was the first appointee since he strongly believed that administrative excellence was the most important factor in containing disease.

With the hegemony of veterinarians in the States from the 1960's, there was a call for a Bureau similar to the successful establishment in the USA. The Australian Bureau of Animal Health was created in 1974. It was incomplete since quarantine still remained with the Department of Health.

This paper will trace the artful actions that were required to wrinkle quarantine free from the dominion of the Department of Health with the bringing of CSIRO-Australian Animal Health Laboratory (AAHL) on stream as the final trigger. I believe Mitchell would have been excited by the manner the veterinary profession stood its guns to ensure that outcome.

History in the Making
CC Clark Australian War Memorial GPO Box 345 Canberra ACT 2601

This session offers helpful advice for those interested in writing historical papers, articles or books for publication. The presenter is a well-known author in the field of defence history, with more than twenty books and innumerable journal and newspaper articles to his name. He has also acted as a reader of manuscripts for various publishing houses, reworked manuscripts to prepare them for publication, and edited several publications such as (most recently) the Journal of the Australian War Memorial. He is therefore able to approach this subject from both the perspective of an author and the publication side. He will talk about how to plan and shape a project, how to focus the research effort, how to embrace the discipline of writing, and—most critically—how to package a manuscript for submission to a publisher.
ARTICLES

ONE CAME HOME

Chris Coulthard-Clark Australian War Memorial, Canberra ACT.

When the first contingent of the Australian Imperial Force departed Australia's shores in November 1914, it took with it nearly 15,000 horses among its artillery, infantry and light horse brigades, and various supporting units. Another 12,000 'Walers' (the general name applied to Australian horses abroad) went off with further departing contingents, or as remounts, before it was decided in January 1917 that no more horses needed to be sent. Only 28,000 of these later departures were destined for AIF units, the remainder had been purchased for the British and Indian governments (mostly the latter).

As soon as the war ended, many Australian Light Horsemen learnt with dismay that their mounts would not be returned with them. Lack of shipping and the high cost of transportation, as well as fears about introducing exotic diseases which might threaten the nation's livestock, meant that those Walers serving with AIF units were to be either sold off, transferred to other armies, or if age and condition did not warrant either of these courses, humanely destroyed. The same policy had been followed in regard to the 224 horses sent with the New South Wales contingent to the Sudan in 1885, and the more than 37,000 Walers used in the Boer War of 1899-1902.

Just one horse out of 136,000 sent away to World War I was ever brought back. According to Professor Ernest Scott, the author of the volume of the official history dealing with the Australian home front, the sole exception was said to have been 'the charger of General Bridges, which followed the gun-carriage at his funeral.'

Major-General Sir William Bridges, commander of the AIF and the 1st Australian Division, had died at sea on 18 May 1915 from a wound sustained at Gallipoli. Two days later he was buried at the Chatby Military Cemetery at Alexandria, Egypt. His remains were exhumed in late July and returned to Australia, where after a memorial service in Melbourne on 2 September 1915, they were reburied the next day overlooking the Royal Military College, Duntroon at Canberra (an establishment which Bridges had also founded, before the war). Photographs of Bridges' funeral procession through Melbourne streets certainly show a horse walking behind the casket. Official records make clear, however, that this could not have been an animal returned from overseas for that purpose. In fact, moves to bring back a horse said to have been Bridges' mount did not get underway for another two years. It was not until October 1917 that Senator George Pearce, the Minister for Defence throughout the war, expressed his desire to have a 10-year-old bay gelding called 'Sandy' returned and put out to pasture at Duntroon.

There is no doubt whatever that Sandy did eventually arrive back in Australia, thereby qualifying for the distinction of having been the only horse to return. Perhaps the belief that he had taken part in his master's funeral related to the general's initial burial in Egypt. This was entirely possible. Although contemporary accounts refer to a 'quiet but impressive ceremony' that was notable for its simplicity. It is known to have been an event which still entailed the conventions usual for the burial of such a senior military officer – such as the playing of the Last Post. And certainly Sandy would have been available for that occasion.

Records held in the Australian War Memorial state that Sandy had been among the animals embarked for Gallipoli (it is most unlikely that he was one of those actually landed) but from 1 August 1915 was in the care of Captain Leslie Whitfield, His Australian Army Veterinary Corps officer in Egypt. On 6 August General Bridges' remains were loaded onto the ship bringing them home to Australia, but Sandy stayed on in Egypt until both he and Whitfield were transferred to France during March 1916.

What seems to be important is that Sandy was Bridges' favourite horse. Why this was so may be a mystery, since there was an opinion that he was not a particularly handsome-looking animal. He was also not a mount to which Bridges could claim long attachment, since it appears that Sandy was only donated to the Commonwealth government soon after the war began as a patriotic gesture by a brickmaking firm named O'Donnell Bros in the Victorian country town of Tallangatta. Presumably the horse exhibited other qualities, temperament perhaps, which endeared him to the general.

After Senator Pearce made his wishes known, Sandy was sent in May 1918 from the Australian Veterinary Hospital at Calais (which Whitfield was then commanding as a Lieutenant Colonel) to the Remount Depot at Swaythling, England. Accompanying him was a groom, 38-year-old Private Archibald Jordan from Ferntree Gully, Victoria, who had been with the hospital since April 1917 after being classed as permanently unfit for further active service on medical grounds. Once three months of veterinary observation established that the horse was free of disease, passage was arranged for Sandy, still in the care of Jordan, who reportedly had come to understand him well, in the freighter Booral it sailed from Liverpool in September 1917. On arrival in Melbourne in November, Sandy was turned out to graze at the Central Remount Depot, Maribyrnong, on the western outskirts of the city.

While the original intention had been to pension off the horse at Duntroon, it is clear that Sandy saw out the rest of his days at the Remount Depot – despite later claims by Canberra locals that he was a familiar sight in paddocks near the Royal Military College (RMC). By August 1922 increasing blindness and the onset of debility prompted a decision to have him put down 'as a humane action'. Before this course was followed, however, the War Museum (later to become the Australian War Memorial) was asked if it would like to preserve his skeleton. The War Museum committee explored having Sandy stuffed whole, but baulked at this idea because of the expected cost ($400) when he had never actually been ridden in action, and the fact that he was now in poor condition due to old age.

For many years Sandy's head remained on display at the War Memorial, in both Melbourne and Canberra, forming a fitting tribute to the thousands of horses which formed such a proud part of the AIF story. It is still in the collection, though not currently on exhibit due to deterioration through age. In 1959 the Memorial also became the recipient of one of Sandy's hooves, returned as a donation from the Department of Defence (although which of three originally put around the department is unknown). RMC retains the hoof presented there, displaying it in the Officers Mess in Duntroon House. In these relics remain tangible links with the one Walers that made it home from war.
GRAHAM MITCHELL F.R.C.V.S., PIONEER VETERINARIAN

("A Disease Hunter")

INTRODUCTION

Cumberland Disease (the so-called new disease) in Australian Sheep, published in 1877 according to the title page of the book is a compilation of reports, letters etc., on the subject by Graham Mitchell. The author's list of his qualifications and associations then follows. He was a member of the Royal College of Veterinary Surgeons, a Fellow of the Royal College of Veterinary Surgeons, a Fellow of the Royal Scottish Society of Arts, Edinburgh; Certified Chemist; and Veterinary Surgeon to the Prince of Wales Victorian Volunteers Light Horse. He was a member of The National West Bourke, Owens and Murray Agricultural Societies of Victoria, the Zoological and Acclimatisation Society of Victoria, and the Society for the Prevention of Cruelty to Animals, and was later Veterinary Surgeon to the Government.

The book was written and edited by Mitchell to vindicate his stand against what he saw as erroneous information and dangerous advice given about the so-called, "New Disease of Sheep" by some veterinary colleagues and the Chief Inspector of Stock for Victoria (EM Curr). The disease was anthrax and was the cause of many sheep deaths in the Western Districts of Victoria. In Mitchell's publication most of the arguments raised by his opponents against his diagnosis of anthrax were refuted. To do this Mitchell reproduced the correspondence in the Melbourne daily newspapers of all groups that had an opinion on the causes of the deaths. The correspondence between the main parties was carried out through letters to the Editor in the Melbourne Argus and Age newspapers between October 1876 and February 1877. Mitchell set out his reasons for writing the book and in doing so reveals himself as an exceptional clinician and a veterinarian with a scientific approach to disease.

WHO WAS GRAHAM MITCHELL?

What do we know of Graham Mitchell? In some ways he was a man of mystery as there is little information available on his early life. The mystery begins with his birth, which is given as between 1831 and 1834 in Edinburgh, Scotland. His father was William Mitchell, a Presbyterian minister and his mother was Lilias Mitchell (nee Cross). He had several brothers, one of whom died in Queensland around 1887 as the result of a fall from a horse.

What happened in his life from birth to entry at Edinburgh University where he studied under William Dick, the founder, is not on record. However, it is recorded that he graduated in 1854 from the Edinburgh Royal (Dick) College with a Diploma of the Highland and Agricultural Society. Copies of letters from Professor Dick and other lecturers reveal that he was considered an outstanding student. Later in the year or early 1855 he migrated to
Australia. Robertson mentions that life in the Colonies was not easy for the first veterinarians and he cites Mitchell as an example. Before Mitchell became fully established in a veterinary practice, from 1858 to 1863 he was a part-time gold escort and also a pound keeper at Kalkallo, 30km from Melbourne, on the Sydney road and near Donnybrook railway station. A Charter from the British Government in 1844 established the Royal College of Veterinary Surgeons. However, it was not until the first British Veterinary Congress was held in London in May 1857 that the veterinary profession became a unified body. Mitchell became a member of the Royal College of Veterinary Surgeons in 1871 after sitting for the examination while he was in Calcutta, India. Later he was honored as a foundation fellow by appointment in 1877. On his return to Australia from India in 1871, he established a veterinary practice in McKillop Street opposite Kirk's Bazaar, Melbourne and in 1873, he moved to Kirk's Bazaar where he practiced until his death. Mitchell was the first qualified person appointed by the Victorian Government as Veterinary Surgeon under the Diseases of Stock Act 1872. Unfortunately, his position as Government Veterinary Surgeon did not last long because of repeated differences of opinion with the Chief Inspector of Sheep, Edward Curr.

CONTAGIOUS BOVINE PLEUROPNEUMONIA

The cattle disease, contagious bovine pleuropneumonia (CBPP), was introduced into Australia in a Shorthorn cow, St Bee, in a draft of five cattle on the Copenhagen, ex London and Plymouth, arriving in Melbourne on 9 October 1858 after a voyage of 99 days. The cattle went to Mr. Bradl's farm on the Plenty River near Darebin Creek. The cow died within six weeks of arriving in the Colony but in the meantime another cow in Bradl's herd had been infected. Henry Wragge MRCS diagnosed pleuropneumonia at post-mortem examination. Wragge recommended slaughter of all of the cattle. After a prolonged period of eleven months inaction by the recently established Victorian Government, concerned neighbours and other farmers collected money to pay for the slaughter of Bradl's cattle. As an added precaution, no stock were to be run in Bradl's paddocks for six months but, as Mitchell noted, "some working bullocks were put in, or strayed in, and from that starting point the disease was propagated throughout Australia." In August 1860, pleuropneumonia occurred in cattle on the neighbouring farm owned by Mr. Hooper. After confirming the disease, Hooper's entire herd was slaughtered over 3 days. Henry Wragge conducted the post-mortem examination and found lesions in 51 of the 123 cattle. Mitchell obtained a supply of pleural effusion containing the 'virus' on 10 August at the post-mortem examination of the cows. "At the time I obtained a supply of the virus and by a series of experiments (guided by instructions of Dr. Willems of Hasselt, Belgium on the subject) proved the efficacy of inoculation as a preventive." Mitchell had obtained pleural exudate from the diseased cattle and he commenced a series of experiments by inoculating healthy cattle and putting them in contact with diseased cattle. Mitchell based the studies on the work of Dr. Willems who had published his results in a pamphlet in 1852. Mitchell was so enthusiastic about Willems' discoveries that he described them as second only to Jenner's and as paving the way for the research of Pasteur and others. Mitchell achieved results in vaccinating healthy herds of cattle protecting them from pleuropneumonia and this alerted other farmers to the advantages of vaccination. One of the people with whom Mitchell worked with while he was in India and later on when he returned to Australia, was Mr. Richard Rutherford MRCS. Mitchell and Rutherford studied vaccination for contagious bovine pleuropneumonia together in India and their studies extended to the technique of producing calf-tissue exudate. Rutherford visited Victoria where he and Mitchell continued their studies. Subsequently Rutherford took the technique of pleuropneumonia vaccination of cattle into the dairies of Edinburgh and
Leith in Scotland. Mitchell was later able to produce calf lymph for vaccination for pleuroneumonia, which he sold from his practice in Melbourne at £1 for 100 head of cattle for distribution within Victoria and to other colonies.

The Victorian Government in 1864-5 appointed a Royal Commission. This was the second of three such commissions to investigate bovine pleuroneumonia. The majority of the commissioners were medical men. The experiments were conducted at Little River near Geelong on cattle obtained from Tasmania. The findings were published and the deductions of the Commission are worthy of particular notice, as they reached the conclusion that pleuroneumonia was not contagious and that inoculation was useless. Consequently they advised the Government to stop all measures in this regard. The committee deemed it suitable, however, to offer a prize for an essay on pleuroneumonia and the best means to be adopted for its eradication, etc. The prize of £50 was awarded to a Dr. Wm Jas. Johnson whose essay agreed with the experimental findings of the Commission. Mitchell had submitted an essay and obviously was disappointed in the result, particularly when Johnson later admitted he had never seen a case of CBPP.

FOOT-AND-MOUTH DISEASE

In 1868 Mitchell left for India and after 3 years residence in that country he returned to Victoria. As Mitchell was involved in the horse trade between Australia and India it may be assumed it was on this business that he went to India. During his time in India he had seen and experienced the results of diseases such as rinderpest, foot-and-mouth disease, sheep-pox and hydrophobia (rabies) and was convinced that Australia ran the risk of importing these exotic agents since there were no reliable systems of quarantine inspection in the colonies. On 17 April 1871, he forwarded to the Chief Inspector of Sheep (EM Carr), a list of the likely diseases that could be imported. Carr wrote across the report, "I cannot see on public grounds what object the writer of this report can have, as it contains nothing but what can be found in any veterinary book". By 25 January 1872 during which time there had been no response to the report, Mitchell wrote to the National Agricultural Society of Victoria directing attention to the problem of quarantine. He read a paper to a meeting of stockowners at Menties Hotel Melbourne after which the meeting endorsed sending a deputation to the Government to stress the need for animal quarantine but again no action was forthcoming. Mitchell wrote to the Editor of the Argus newspaper on the 5 May 1872 informing the readers that he had diagnosed foot-and-mouth disease in cattle on a farm at Werribee. Mitchell described what followed after the publication of his letter on foot-and-mouth disease in the Argus: "The Chief Inspector of Sheep was directed to go to work; two small herds were destroyed, and the disease eradicated. Another Royal Commission was appointed (veterinarians again carefully excluded, vide Report). A "Diseases in Stock Act" was then passed, and the Sheep Department became the "Stock" Department. It is scarcely necessary for me to state that both the Act and the Department have proved utterly useless." Mitchell gave evidence at the Royal Commission inquiring into the outbreak of Foot-and-Mouth Disease in 1872. He was asked to outline how he made the diagnosis and the circumstances under which he arrived at the diagnosis. In a series of probing questions the commissioners quizzed Mitchell on his experiences in India. Mitchell told them he had seen the disease in cattle in Calcutta and Bombay and described the lesions that he noted were very mild when compared with FMD cases he had seen in Britain. It is now known that FMD lesions in cattle in tropical and semi-tropical regions are generally much milder than those seen in Europe.

Several other veterinarians were called to give evidence to the Commission including, JP Vincent, | Mascarin and also the Chief Inspectors of Stock, Alexander Bruce from New South Wales and Edward Carr from Victoria. The only veterinarian member of the Commission was Henry Wragge MRCVS.

As a result of the Commission's findings on FMD, from 1872 onwards a complete embargo was placed on the importation of cattle, sheep or pigs into Victoria for over seven years.

THE "NEW DISEASE OF SHEEP" (ANTHRAX)

"Cumberland disease," was first reported in cattle in 1847 on the property of Mr Cordeaux on the Leppington Estate near Campbelltown, in New South Wales. The disease appeared to spread gradually causing deaths in stock in the Murrambidgee, Murray and Riverina regions of New South Wales and in the Darling Downs in Queensland. In his report to the Secretary for Lands on Cumberland Disease, Mr. Gordon, Chief Inspector of Sheep, Queensland, took great care to explain in detail what was known of the disease. Under the title of "Preventive Measures", Gordon writes, "From the rapidity with which the disease runs its course, and with our present limited knowledge of its nature, a cure seems hopeless.
Our attention, therefore, should be directed to the means of limiting its spread, and stamping it out, if that were possible. Because of the extent and number of deaths in sheep flocks, Gordon recommended that the Queensland Government appoint a commission to decide what should be done.

In Victoria, Archibald Park MRCVS, wrote to the editor of the Warrnambool Examiner on 27 April 1876, reporting the occurrence of an epizootic disease that was prevalent in sheep flocks in the region. Park pointed out that where the disease was allowed to run its course the animals died of blood poisoning. The epizootic was quickly labelled 'the New Disease' of sheep. Park had arrived in Warrnambool Victoria two months previously from Britain. In January 1876, he was asked to investigate a disease that had killed hundreds of sheep in the district and a poison plant was suspected since the sheep had died in their camp. On 27 April 1876, Park's letter to the editor of the Warrnambool Examiner ventured his opinion on the diagnosis and gave a detailed account that ruled out plant poisons, fluke and worms. "This is an epizootic disease, belonging to the class, Zymotic, and it is highly contagious and infectious." Park went on to stress that it affected all animals including man. Animals were dying of blood poisoning while their flesh was quite unfit for food. "The disease could be transmitted to other countries by exportation of wool, skins etc.

Graham Mitchell, on 5 July 1876, referring to Park's report in a letter to the editor of the Argus newspaper, Melbourne, stated, "that I am of the opinion that anthrax was the cause of the mortality. He noted the diagnosis of 'blood poisoning' in sheep in Park's letter and that anthrax was known as 'Cumberland Disease' in the Australian colonies. Mitchell confirmed Park's diagnosis created a flurry of responses finally resulting in a great deal of animosity between the contending groups. Mitchell's comments with regard to the performance of the Chief Inspector of Stock, Victoria in situations requiring disease control were very caustic and became even more so when the next disease occurred.

Publication of Park's letter led to the Chief Inspector EM Carr requesting that the Warrnambool district Stock Inspector Kerr, investigate the deaths. Kerr reported that the sheep disease was live-fluke and fluke. The report was sent to Mitchell as the Government Veterinary Surgeon under the Diseases in Stock Act. Mitchell suggested that in order to be certain of the true diagnosis of the cause of death a post-mortem examination should be made. The proposal was greeted with silence from the Chief Inspector's Office. Several weeks later Inspector Shaw of the Melbourne District came to Mitchell with a sheep supposedly infected with the 'new disease'. The disease on examination proved to be liver fluke (Parvicapsula). A series of recriminations between Chief Inspector Carr and Mitchell followed, after which Mitchell's services as Government Veterinary Surgeon were dispensed with by the Chief Inspector.

The New South Wales and Victorian Stock Departments entered into correspondence with reference to the disease and the diagnosis of anthrax by Park and Mitchell. This exchange occurred because of the quarantine requirements that applied to movements of sheep between the Colonies. This was a matter of grave concern to the Victorian Chief Inspector who saw Mitchell's diagnosis and intransigence on what should follow as impediments to trade between the States.

Other veterinarians, JP Vincent and W McCaw wrote to the editor of the Argus on 30 November 1876, refuting their 'potassium theory' for the epizootic and informing them that he had diagnosed the disease in sheep from the Western District sent to him in Melbourne. Mitchell was able to show that the disease was transmissible to rabbits and sheep by inoculation of infected blood that killed the recipient animals within days whereas if the blood was treated with carbolic acid before inoculation the sheep survived. Mitchell carried out post-mortem examinations on sheep dying of the disease and examined the blood microscopically. He commented that he occasionally saw rod-shaped bodies.

It was a remarkable experimental achievement by Mitchell as this was before Pasteur and Koch had published the evidence that microorganisms were the specific cause of infectious disease. In 1876 Koch first demonstrated that anthrax was caused by a bacterium that he was able to isolate from cases of the disease and grew in the laboratory. Pasteur confirmed the finding and went on to produce a vaccine for anthrax.

In a letter from Archibald Park to the Argus on 4 December 1876, Park confirmed his previous diagnosis and gave details of the huge losses experienced by sheep owners in the western districts of Victoria.

The correspondence in the Argus on 'the new disease of sheep' became very ponderous and personal and included letters from medical doctors, chemists, squatters and Thomas Shaw, a noted sheep breeder, as well as some veterinarians and finally, from the Chief Inspector of Stock. Many of the letters offered alternative suggestions for the deaths and opposed the diagnosis of anthrax. Correspondence from Alexander Bruce, Chief Inspector of Stock, New South Wales, to the Chief Inspector, Victoria regarding the disease was also produced to bolster evidence for the alternative point of view.

Mitchell completely refuted Carr's final letter on the 'new disease' to the Argus and showed his disdain of the Chief Inspector's general approach to disease control. The extensive outbreak of anthrax in Victoria in January 1876, caused such high losses that stockowners were forced to sell what remained of their flocks and to replace sheep with cattle. However, as Mitchell stated 'the consequence of this was that the disease was distributed throughout the Colony without any preventive measures being enforced.' Mitchell also worried about the danger to those people who were skinning the dead animals not realising the possible consequences. Chief Inspector Carr had commented that the disease was only 'fluke under a peculiar aspect' and thus allowed diseased sheep to be sold and carcasses to be skinned.

The numbers of humans infected or that died as a result of anthrax over the time of this outbreak is not recorded but W McCaw, MRCVS, at the height of the argument, had recklessly offered himself to Mitchell as ready to be inoculated to prove it wasn't anthrax. It is to be hoped that he later appreciated that his offer had not been accepted.

SMALL-POX VACCINATION

Vaccination against small-pox had been a problem since the first colony in New South Wales when there was a enormous loss of life in the Aboriginal peoples (estimated to be over 50 per cent) in the tribes surrounding the Sydney settlement in 1788. The epidemic may have continued to spread among Aboriginal tribes for many years afterwards since the early explorers in Victoria had noted poxmarked Aboriginals along the Murray River and...
in many areas of southern Australia. As early as 1804 Governor King was anxious to obtain a supply of vaccine from Britain to ensure that the children of the Colonies were protected. Puller (1968-69) has detailed the history of the events leading up to the establishment in 1881 of the Calf Lymph Depot at the Model Farm, Royal Park. Briefly, from about 1850 onwards prophylactic vaccination was practised spasmodically; either using stored virus or direct arm-to-arm inoculation. On several occasions attempts were made to institute compulsory vaccination of children, with little success. The main causes of failure were ineffective supervision of the population and the poor quality and irregular supplies of vaccine. Various governmental and professional inquiries had reported that this unsatisfactory state of affairs could only be solved by local production of assured supplies of high quality product.

About 1881, Dr. Oliver Penfold, Consulting Medical Officer, Bendigo Hospital, commenced the experimental production and use of calf lymph. About the same time a group of medical graduates in Melbourne commenced similar experiments. As they experienced indifferent success, the latter group invited Mitchell to participate since he had been taught the calf-lymph culture method in India. In September 1881 the initial experiments under Mitchell's direction were conducted at Dunkeldong and elsewhere with great success. On 7 September 1881, a party, including Dr. Plummer, inspected the calves at Dunkeldong, collected lymph, and vaccinated one child and three adults.

In November 1881, Mitchell was given a supply of pure animal lymph ordered by Dr. L.L. Smith from the 'animal vaccine establishment, at Manningtree, Essex, England.' This was further propagated in calves at the Model Farm, Royal Park. The Model Farm covered the area now occupied by the Commonwealth Serum Laboratories, Royal Park Psychiatric Hospital and the Children's Welfare Department. The Calf Lymph Depot was located on the site of the Commonwealth Serum Laboratories.

Graham Mitchell was involved in many community activities and the following report, published in the Argus newspaper 5 June 1882, reveals Mitchell's role. As noted previously while in India he had studied the production of vaccinia virus in calves and as a concerned citizen he was anxious to see an assured supply of the vaccine available in Victoria.

**Vaccination from the calf.** The announcement, under this heading, was made at a public meeting held on 5 June 1882 to discuss the system of vaccination for smallpox that was established for the Compulsory Vaccination Act. The meeting was, "To consider the present system of vaccination and the necessity for the Compulsory Vaccination Act to be amended. That calf lymph only should be used when preferred by parents. That the calf vaccine depot at the Model Farm should be permanently established." Dr. L. L. Smith was chairman and he pointed out that human lymph alone was available to the time that Mr. Mitchell and some others commenced experiments for the purpose of obtaining calf lymph. Before then people who were conscientious objectors, or were against the use of human lymph because of the risk of disease, could not get their children vaccinated and were liable to fines and imprisonment.

The meeting resolved that a deputation should see the Chief Secretary to press for the establishment of a central calf lymph depot for the production of calf lymph and selection of healthy human lymph. A medical superintendent and inspector of vaccination should be permanently employed to operate the facility. Mitchell and WT Kendall combined later to operate the calf-lymph collections at the Model Farm.

**BOVINE TUBERCULOSIS**

Mitchell, writing on tuberculosis in the Australasian Veterinary Journal (1882), stated, "This disease has for the last few years received considerable attention on the Continent, exhaustive experiments have proved that the milk and flesh of tuberculous cattle have caused the disease in the human subject, especially children, and animals which have partaken of it. Tuberculosis seems to be communicable by ingestion, inoculation, and inhalation."

In his writings to newspapers in 1871, Mitchell drew attention to the extent of bovine tuberculosis in dairy cattle in Victoria and pointed out that tuberculosis was not included in the schedule of diseases in the Diseases in Stock Act. He wrote, "It is likely to cause great mortality amongst our herds and seriously endanger human life. No doubt the high death rate amongst children reared on the bottle is attributable in a great measure to the use of milk from tuberculous cows."

**VETERINARY EDUCATION IN AUSTRALIA**

Graham Mitchell was the originator of the idea that Veterinary Science should be taught in Australia. In 1876 he wrote to the editor of Fleming's Veterinary Journal on the subject and republished the abridged article from this journal in his book on Cumbumrbash Disease.

**A VETERINARY SCHOOL FOR AUSTRALIA**

We have frequently alluded to the great necessity there exists for a veterinary school in the antipodean section of the British Empire. The immediate region we designate Australia is essentially agricultural and pastoral, and as such bids fair to become one of the wealthiest parts of the world, and a centre for several of our colonial possessions whose animal population is annually on the increase in most respects and value. We have often had to deplore the immense loan to which Australia has been exposed, by the invasion of exotic, or the widespread prevalence of indigenous maladies among her stock.

Veterinary surgeons are apparently few and far between, and of the sanitary inspectors of stock we believe there is not one who has studied veterinary medicine. For these reasons we speak with such satisfaction the announcement that it is proposed to establish a veterinary school in Melbourne, the proposal having met with the approval of a number of influential gentlemen of the colony. The proposer is Mr. Graham Mitchell, MRCVS, whose great experience in animal pathology in the southern hemisphere, his well-known abilities as an accomplished veterinarian, and the advantages he otherwise possesses through having himself, so to say, acquired the rapid strides recently made in veterinary science, eminently qualify him for undertaking such an arduous and responsible task. But in addition to these, Mr. Mitchell has other claims, which should weigh heavily in his favour with the colonists and the Colonial Government. It was entirely due to his skill and energy that the colony was saved from an invasion of foot-and-mouth disease, which the inspector, from his want of knowledge, could not recognise. This we glean from the Government Inquiry Report, which was published a few years ago.

The colony is already wealthy, and if it wishes to keep its wealth undiminished, or to increase it - we might say largely - it cannot do better than institute a veterinary school on a good footing. While benefiting Australia in a very material way by doing so, it will also be conferring a benefit on humanity, as far as animals are concerned, and will be directly promoting medical and agricultural science. - Fleming's Veterinary Journal. 1877.22

Mitchell would have been very pleased to have the support of so many of the leading squatters, land holders, dignitaries and politicians of Victoria supporting his moves for a Veterinary school.
VETERINARY SCHOOL.

We the undersigned approve of Mr. Graham Mitchell's proposal to establish a Veterinary School in Melbourne for the following reasons:

1. An annually increasing loss is being sustained by the Colony through disease amongst stock, arising in a great measure from preventable causes and the want of a general knowledge of the Veterinary art.

2. The necessity which exists for an establishment where the sons of stockowners, etc. could be instructed.

3. Such an establishment, being a Museum, Library, Laboratory, Discussing room, etc., would be the means of collecting valuable information in reference to indigenous diseases, the most effective measures of prevention and cure, and also an important bearing on the health of the community, etc.

Signed

Hon. Robert Simon
W.J. Clarke
Sir John O'Shanassy
C.R. Fisher
E.R. Godfrey
C. Campbell Finlay
Wm. McMillan
S.F. Stranghness
William John Labb
J.P. Faintfield
Hon. Francis Robinson
A. Plummer
Edwin Row
Robert Clarke
Ed. Dandoley
and others

Gentlemen in favor of the establishment of the above school will please notify the same.

Mitchell was the first honorary Veterinary Surgeon to the National Agricultural Society (later to become the Royal Agricultural Society) and, in this position he wrote in 1877 to the Society to enlist its help in establishing a Veterinary School. He continued to use his influence with the Society and on 17 July 1888, he wrote to the editor of the Journal of the National Agricultural Society reminding the members of the need for veterinary instruction. By now Mitchell had an ally in William Kendall who had fortunately arrived in Australia in 1880 and was assisting and complementing Mitchell's efforts towards having the profession recognised, disease control instituted and veterinary education promoted in Victoria. While Kendall was in veterinary practice in England he had noted Mitchell's article in the Veterinary Journal and had humbly asked his wife, "What about going to Melbourne to help Graham Mitchell to establish a College?" 28

William Tyson Kendall graduated from the London Veterinary College in 1873. He spent six years in practice in the Lakes District of England before leaving in 1880 for New Zealand. A chance stopover in practice in three days in Melbourne on the voyage convinced him to stay (the S.S.Somenetthie on which Kendall sailed terminated in Melbourne, Kendall would have had to go on another ship to New Zealand). Kendall went into practice at the Horse Bazaar and opposite Kirk's Bazaar and as Robertson commented "He commenced to organise the profession." 29

WT Kendall wrote in 1880 30 that there were only twelve qualified veterinarians in practice in Australia and not one employed in government service in any colony. Kendall called a meeting of qualified veterinarians to be held at Merries Hotel, Melbourne with the object of forming an association. Mitchell chaired the inaugural meeting and was elected President with Kendall as his Secretary. The association took the title of the Australian Veterinary Medical Association and in 1881, Mitchell became general Secretary for australasia whilst branch secretaries were appointed in the other colonies and New Zealand. The association was mainly active in Victoria; it published a register of Veterinary Surgeons and encouraged a Parliamentary Committee to review the Disease in Stock Act. By 1882 it had commenced publication of the "Australian Veterinary Journal" which was to contain articles of general interest to cattle for stockowners and farmers and, in this way, broaden the readership. The Journal was produced with the support of the Association but was privately owned. The Editors were G. Mitchell, W.T. Kendall and T. Chalwin. 31

By May 1882, a special meeting was held to discuss a proposed program for an "Inter-colonial Veterinary Conference" at which the following were to be considered:

- Uniform legislation for animal diseases
- Introduction of Veterinary Surgeons Bills for each colony
- Establishment of veterinary schools
- Control of epizootic diseases
- Effects of poisonous plants

Unfortunately these far-sighted proposals were not to be fulfilled for some considerable time but they provided incentives for the future aims of the Association.

Mitchell had been the driving force in its efforts to establish a veterinary school and he overstepped his authority by arranging for an architect to draw plans for a school and submit the accounts to the Association. A dispute resulted in which the Association members refused to pay the account and Mitchell was left to settle. Unfortunately, the ramifications from this dispute continued for many years. The Association ceased to exist, as also did the Journal after the publication of one very interesting volume.

Robertson 32 notes that Kendall took over the role of leader of the profession to help achieve the two most pressing needs, registration for veterinarians and the establishment of a veterinary school. Victoria remained the only colony in which veterinarians were trying to form a professional group. Both Robertson and Hindmarsh comment on the number of aborted attempts that there were to start veterinary associations over the period from 1882 up to 1890. 33 However, eventually Kendall, Graham Mitchell and several other veterinarians re-established the Veterinary Association of Victoria, and began working on a draft of the proposed Veterinary Surgeons Act. The Act was modelled on the Charters of the Royal College of Veterinary Surgeons and in December 1887 it passed through the Legislative Assembly. Once the Act was passed the Veterinary Board could be established and the way was clear for Kendall to begin establishment of his Veterinary College. 34

The Veterinary Medical Association had been successful in obtaining a land grant in Richmond Park for a veterinary school but it was withdrawn because of residents' objections. After 1882 Kendall offered to pay five per cent of the costs of building a college on Sydney Road adjoinig the horse bazaar. There was a great deal of support from the citizens of Victoria and a petition was presented to the City Council containing signatures of prominent people. When it was found that the land had been reserved for market purposes.
the plan was withdrawn. At this point Kendall decided to build his own college and, in 1885, purchased land in Brunswick Street Fitzroy. Although the buildings were completed in 1886, Kendall wanted to ensure that there was a Registration Act in place before commencing teaching. The length of Kendall's original course was to be for two years but during the passage of the Bill through both houses of the Victorian Parliament this was extended to four years.

The college was opened in January 1888 but it was not until a meeting of the Board on 17 April 1889 that a ballot recognised Kendall's school. Even at this stage the college still had problems to overcome before it was able to function satisfactorily. In 1908 the College was transferred to Melbourne University.

The passage of the Victorian Veterinary Surgeons' Act of 1887 that registered British graduates and practitioners who had been practising veterinary surgery in Australia for seven years, signalled the beginning of a disciplined, professional body. The non-graduates and a few disaffected MRCVS formed an alternative body named the "Veterinary Medical Association of Australia." This was not destined to last for long although its membership was originally larger than the "Royal Veterinary Graduates Society." The title adopted by the Veterinary Association of Victoria in 1891 was to distinguish them as graduate MRCVS from the rival association. There was a lengthy delay before the section of the Act that established the Veterinary Board of Victoria came into force in 1888. Obviously there were some problems in the establishment of the Board as a meeting of veterinary surgeons was held at Tilly's Hotel on 24 April 1888, from which a deputation was sent to wait on the Minister for Agriculture. Whether or not the deputation met the Minister is not known but the Board was appointed within days of the meeting for a term of three years until April 1891. The Board members appointed were, G Snowball, H Wragge, C Mason, WD Kendall, J Aked, A Sharp and E Rivett. Rivett resigned before the first meeting and G Mitchell was appointed. Mitchell died before the meeting was held although his obituary states that he died the evening after attending the first meeting. WD Repson filled the vacancy. Mitchell's death notice was in the Argus on 15 June 1888. News of his death appeared in the Veterinary Journal in an obituary extolling the role Mitchell had filled in Australian veterinary and community circles and expressing the regrets of the profession in Britain. The writer continued by stating that, "In many other ways he rendered such valuable service to the colony, that his loss is considered a public one." His death by natural causes was unexpected and tragic to the extent that he died on the evening of 4 June after attending a meeting, which he left "in his usual health and spirits." His body was not discovered until 10 days later where he had apparently died peacefully in his sleep in bed. Mitchell had not married and was aged fifty-four years when he died.

Graham Mitchell, who had done so much for the fledgling veterinary profession in Australia completed the mystery of his life by his lonely death in tragic circumstances. Some of his contemporaries have since achieved immortality within the profession by virtue of a commonly accepted practice. These men have often been honoured by the perpetuation of their names in the titles of stations for veterinary activities given by members who are being recognised for services or contributions to the veterinary profession. Graham Mitchell has never been honoured in this way but from the legacy he left in his writings and the accounts of his deeds, recalled by his colleagues and contemporaries, he certainly was an exceptional leader. From his writings it was clear that he was a brilliant clinician, a good experimenter and an observant pathologist. He was driven to raise the standards of veterinary science in colonial Victoria. He was humane and at times his actions may have seemed impulsive. He did not suffer fools gladly and told them so, thus upsetting some influential people.

Mitchell always had the best intentions for the improvement and benefit of the veterinary profession and through its efforts the animal industries of his adopted land. His background and family connections are not well known but his achievements, fortunately, are well documented. We can only express thanks and admiration for the life-long efforts of such a wonderful pioneer who achieved so much in establishing foundations for the emerging veterinary profession in Australia.

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Cattle Plague: A History
700 pages no price was given. ISBN 0-387-9879-J, C.A. Spurgeon

Cattle plague or rinderpest has been the most devastating of all animal diseases and its occurrence both in pan-epizootic and enzootic form mimics many of the important historical events of our times. This book accounts and relates these many interrelating factors and provides a detailed and fascinating insight into the ecology of this extraordinary virus infection.

Divided into 5 parts, the book examines the disease from a series of perspectives. Starting with the classical description of the infection, it moves on to link the occurrence of the disease with major historical events before examining the range of legal and managerial approaches that have been taken to better control and limit the spread of the disease. The 4th part then examines in detail the many approaches taken to try and find a cure and subsequently develop a vaccine. Finally and most extensively, the book accounts the spread of the disease in Asia and Africa and the subsequent development of control and more recently eradication programmes in these regions.

The text is extensively supported by numerous references both anecdotal and published and the interlinking of the five parts is a masterpiece in collation and cross-referencing and provides a common set of themes throughout all the text.

This book is undoubtedly the most exhaustive historical and contemporary account of cattle plague written to date. It provides an epidemiological account of this historic disease from the earliest possible times to the situation as it occurs today. If the book is to be faulted it is in the account of progress and the correctness of events during the past ten years but this is more than compensated for by the enormous detail prior to this.

The book deserves a place in any collection or library concerned with infectious diseases and should be read by all those interested in history and how livestock and livestock diseases have shaped our society.

Martyn Jeggo

Dr Jeggo is Director, Australian Animal Health Laboratory CSIRO Livestock Industries and has had extensive experience with rinderpest in Africa.

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Editorial

The Australasian Veterinary Journal

Published by the Australasian Veterinary Association.
What did you do in the UK, Mummy and Daddy?

Trevor Faragher

When you have walked the Lake District, climbed Ben Nevis, and circled Stonehenge, what's next? Within goggling distance of the London Eye are 18 or so museums of health and the medicine. Start at the Royal Veterinary College, founded at Camden Town in 1791, where the Veterinary Museum contains thousands of books, veterinary instruments and manuscripts relating to the College and the development of veterinary education and science. The historical collections have been moved from Camden Town to the Hawkshead Campus, Hatfield, Herts (tel 017 0766 6333) where on 30 October 2003 HM the Queen opened the Eclipse Building in which the collections will be housed. When you return to London, remember that the Science Museum in South Kensington houses a veterinary gallery.

The splendid Museums of the Royal College of Surgeons of England in Lincoln's Inn Fields contains a collection of more than 6000 preparations of anatomical, pathological and zoological specimens reflecting the work of John Hunter, surgeon and comparative anatomist. Historical surgical instruments are also displayed.

Hidden in the roof of a church in St Thomas Street is a 300-year-old herb garret, which houses the only surviving nineteenth-century operating theatre. The theatre is complete with wooden operating table, and observations stands from which spectators witnessed surgery performed without anaesthetics or antisepsics. The oak-beamed garret was also used for the storage and curing of medicinal herbs.

The Chelsea Physic Garden was founded in 1673 by the Worshipful Society of Apothecaries of London to study the therapeutic properties of plants. Displays include plants used in present day pharmaceuticals and a Garden of World Medicine showing the use of plants by indigenous people.

Close to Paddington Station inside St Mary's Hospital is the Alexander Fleming Laboratory Museum. The museum is an in situ reconstruction of the cramped laboratory in which Fleming discovered penicillin, with displays and a video of the man and scientist and the discovery and development of this antibiotic.

Yet there are more, including those that memorialise Florence Nightingale and Sigmund Freud (see <www.medicalmuseums.org> for more information. Meanwhile, refreshment awaits you in the John Snow pub in Broadwick Street, just behind Liberty's. After downing your pint and a scotch egg, ask to sign the Visitors' Book, for the John Snow is very close to the site of the Broad Street pump of cholera fame. By signing the book, you will join a most distinguished company of epidemiologists.