PROFESSIONALISATION OF VETERINARY SCIENCE
IN VICTORIA

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"What are the circumstances in which people in an occupation attempt to turn it into a profession, and themselves into professional people?"

INTRODUCTION

In the Archives of the University of Melbourne there are two black notebooks containing the handwritten reminiscences of William Tyson Kendall, the "founder of the veterinary profession in Australia". In fact, Kendall makes very little reference to the veterinary college that he founded, his teaching or the trials that he was to confront, but out of that chance encounter with his notebooks I became interested in the early years of the profession in Victoria; the profession to which Kendall devoted so much of his incredible energy and enthusiasm. Further inquiry only served to enhance this interest, but revealed that there was a paucity not only of primary source material, but also of recorded history. During the course of conversations with both retired and active practitioners, I have frequently been told, and can verify, that veterinarians are great talkers, and many of them are keen to preserve their historical heritage, but are the worst procrastinators when it comes to the written word.

With the exception of a regular flow of articles from E.M. Pullar in the 50's and 60's, writing of historical interest has been somewhat sparse, but more unfortunately, many historical records of value have been destroyed or mislaid and consequently original documentation and personal papers are relatively rare.
In 1935 W.A.N. Robertson made the first real attempt to write a history of the veterinary profession in Australia; he undertook some preliminary research himself but despite numerous appeals for information and contributions from other members, both personally and through the Australian Veterinary Association and the journals, he eventually gave up the task, saddened and disillusioned by the lack of response. J. Auty again appealed for personal reminiscences through the Australian Veterinary Association newsletter, but confessed that he met with the same lack of success as Robertson had. Auty appears to have written the only history of the Australian profession of any length to date but for the purposes of his thesis he was forced to limit his research to a general history covering the period 1840-1940.

There appears to have been little attempt to investigate the social background to the creation and stabilisation of the veterinary profession in Victoria at a particular time. To the credit of the current Association there are members who are eager to encourage this form of inquiry, and they have a section of retired members who have been most enthusiastic and supportive of the present project. This has done much to stimulate my research on an important aspect of their occupation which has, to date, been under-served.

This thesis examines the efforts made by the early
veterinarians in Victoria to form a viable foundation for their practice so that it would be recognised by society in general as a reputable, reliable and honorable profession. As well as portraying the events that occurred in this particular historical context, some attempt will be made to examine the framework in which these events occurred, the need for a veterinary profession and the aspirations of its members, and the economic, social and/or political implications that were involved. Because of time and length requirements it has been necessary to confine the examination to Victoria and to an approximate cut-off point of 1930, by which time the profession in this State had fulfilled many of its ambitions, only to find itself a direct casualty of the Depression years. The downturn in its fortunes was a result not only of a worldwide recession, but also of an alarming drop in demand for service when the horse became the victim of progress with the introduction of mechanised transport. That the profession did not atrophy but diversified and survived these challenges to its viability could be a subject for further investigation.

This is not specifically a sociological study, but an examination of the more relevant literature on the sociology of professional bodies was necessary in order to understand attitudes towards the possible mechanisms available and the problems faced by veterinarians in their
pioneering efforts to form themselves into a cohesive, legally recognised group; for solidarity would benefit their efforts by lending weight to their demands and their aspirations for status, and thus help to enforce their position in wider society. Chapter 1 of this thesis will introduce the reader to the accepted patterns implicit in the creation of a professional body, and in the following sections it will be shown how far the history of the veterinary profession conformed to these. Chapter 2 will introduce the reader to the historical background, firstly with a short resume of the British experience since nearly all the early veterinarians were trained in the British tradition at either London or Edinburgh and were strongly influenced by their alma mater. Chapter 3, sections 1-3 describes how Kendall was the moving force behind the formation of the Australian Veterinary Association, the production of a journal and, most importantly, the establishment of a veterinary school. It appears that every avenue that he and his fellow practitioners covered in promoting the veterinary art fulfilled the criteria laid down by trait theorists of the sociology of professions, - that is, the creation of a professional Association; a training establishment of recognised specialist standard; a definitive vehicle for communication (that is, publication/journal); shaped and supported overall by a formal authoritative instrument (the Board). Yet each
move was to experience some form of challenge in the formative years. Chapter 4 relates to veterinary education; and Chapter 5 describes the efforts by the Victorians to have their training qualification recognised by the British.

Of particular note is the manner in which these pioneers relied on their British tradition and sought to strengthen imperial ties, and yet at the same time felt a need to instil an autonomous Australian identity. Important also was the gradual realisation by both the profession and the wider public that it was no use relying any more on imported knowledge alone, gained through training, research and/or literature from overseas, because the European colonist initially was totally ignorant of conditions indigenous to this continent. Although the practitioner could draw on past experience and new discoveries from other countries, these had to be adapted to Australian conditions. In order to promote animal health, it was now necessary to study disease within the environment in which it was endemic.

This attitude was apparent in areas of research. An increasing scientisation of the veterinary art was a worldwide phenomenon following acceptance of the germ theory of contagion and after the discovery of the tubercle bacillus in 1882 by Koch. In Europe there had been a significant establishment of institutes devoted to comparative medicine
and experimental pathology\textsuperscript{6} and this was reflected too in Victoria in veterinary education (Chapter 4) and in research (Chapter 6). Given Australia's reliance on a pastoral economy, the health and wellbeing of stock directly affected Australia's prosperity. It was vital for her overseas markets that the animals be free from disease. Thus the necessity for diagnosis and prevention of epizootic disease, together with improved nutrition, were recognised as being of paramount importance in applied research. Initially this was carried out under the most primitive conditions, but with the establishment of the Council for Scientific and Industrial Research in 1926 and its Animal Health Division, and as a result of cooperation between this new body and the Universities, there would be a marked growth of original research work which would also strengthen links with the agricultural sector (Chapter 7).

Lastly, reference is made to a different aspect of the veterinary profession - to the contribution made by veterinarians in both the Boer War and World War I (Chapter 8) leading in 1930 to the alliance of the Australian Army Veterinary Corps with the Royal Army Veterinary Corps. Veterinarians had always been closely involved with the horse, either in military or racing circles, and at the time this was still believed to be the most prestigious area of professional work. Even in World War I the Army was heavily reliant on animal transportation, and
veterinary surgeons were attached to cavalry and infantry regiments; consequently all veterinarians of conscript age enlisted in the Allied Imperial Force (AIF) to see service in France, the Middle East or North Africa.

Drawing on the contents of the previous chapters, the Discussion in Chapter 9 will attempt to provide answers to questions relating to the profession. Questions regarding needs - Did the veterinary profession create a role for itself that would meet both the country's needs and its own aspirations? Did veterinary education identify with these requirements - did it provide intellectual input as well as foresight in order to meet these needs and those of the future? What authority did the veterinarian hold and did society grant him the professional status that would give him the responsibility to make decisions involving the country's economic and social viability? What part, if any, did the veterinarian play in the comprehensive planning of agricultural development? How did veterinarians relate to other power groupings in society? Having established itself legally and formally, did the veterinary profession learn to accommodate to the requirements of the society it served at a time of great change both scientifically, economically and socially? And, probably most meaningful of all, did the profession offer a service to the public that could not be found elsewhere?
References


2. The books contain his first impressions of Melbourne, sketches of his family life, but most particularly, stories of his own childhood in the Lake District.

3. Pullar wrote at least fifteen articles of a historical nature on subjects ranging from the Board, education and journals to early outbreaks of disease.

4. Robertson, W.A.N. "Milestones in the pastoral age of Australia". Report of the 21st Meeting of ANZAAS, August 1932, Government Printer, Sydney, 1933, p.295. Robertson made an impassioned appeal for information and records in his Presidential Address to Section L of this AAAS meeting, and in his typescript notes (reference 1) refers again to the difficulty in obtaining records and details.


CHAPTER 1. THE PROFESSION

1.1 Definition

There have been many attempts to identify the fundamental characteristics of a profession as distinct from a vocation. One simplistic viewpoint is quoted by Herrick, who believes that

If there is such a thing as a profession as a concept distinct from a vocation, it must consist of the ideals which its members maintain, the dignity of character which they bring to the performance of their duties, and the austerity of their self-imposed ethical standards.¹

Adherents of one attempt to pinpoint a more precise definition have been termed 'trait' theorists. They confine their description of a profession to a number of traits or attributes that they consider adequate to fulfil the criteria necessary for the pursuit of professional behaviour. Bloom is typical of those holding this functionalist viewpoint, insisting that two of the important characteristics of a profession are that members should have undergone an extended and specialised training, and that they should be oriented towards some form of service to the community. It is also important, he points out, that members should form a distinct social group, the basis for which is their professional ability; and that this group membership should be organised into a formal
association with its own rules for admission, licensure and standards of behaviour.\textsuperscript{2}

Vollmer and Mills however, condensed these characteristics into three global aspects, namely -

(1) acquisition of a specialised technique supported by a body of theory;

(2) development of a career supported by an association of colleagues; and

(3) establishment of community recognition of professional status.\textsuperscript{3}

In an early paper,\textsuperscript{4} Carr-Saunders termed such criteria "universal rules", as he believed that attributes could be found that were common to all professions. For him they included such characteristics as specialised skills and training, a defined standard of remuneration, formation of associations\textsuperscript{5} and rules of conduct. In a study which aimed to develop a scale of professionalisation by examining 43 'qualifying associations' (i.e. professional bodies),\textsuperscript{6} Hickson and Thomas\textsuperscript{7} supported Carr-Saunders' view\textsuperscript{8} by finding that although in the relevant literature authors cited a wide variety of traits or attributes as belonging to their own particular profession, there was still a marked overlap in the range of these characteristics. This implied some broad common denominator or base, but also indicated the restrictive nature of employing specific descriptive traits as a form
of definition.

In addition to their assessment of universal rules, Carr-Saunders and Wilson are of the opinion that a profession by its traditional composition and outlook has a valuable steadying effect on society. They feel that professions only exist through free association and that the members' constructive and purposeful efforts and loyalties should provide a positive influence upon society. However, they are critical of professionals' lack of vision and the fact that they "do not grasp the essential features of the social and economic structure and the place of the professions in it".

The social theorist, as distinct from the trait theorist, believes that although the manner in which members present and protect the authority of their role through education and control can differentiate a profession from any other occupation, the needs and demands perceived by society as a whole have an effect on the structure, efficacy and acceptance of that profession. For traits, although acceptable as a descriptive tool, are not regarded by many recent proponents of social theory as sufficient on their own. Trait theory has come to be regarded as too simplistic, and it has been recognised that there is a need not only to examine the historical and social perspective in which attempts to achieve professionalisation were made, but also to acknowledge the
measure of power and authority that the profession can achieve within society. These social scientists believe that in merely defining the attributes peculiar to a profession, the importance of the position that a profession can hold in society and the role it can play in a country's economic and social welfare is completely overlooked. They feel that a profession's uniqueness has been denigrated by trait theorists by reducing it merely to the fulfilment of a general set of criteria. Johnson, for example, sees trait theory as merely "a form of analysis ... taken as a short-cut to an explanation of professionalisation". They believe that the trait theorist has failed to recognise the impact made on society by the profession, and the extent to which the profession offers a service that cannot be found elsewhere. Not only is that impact highlighted through the profession's special contributions that its members alone can offer, but also society provides stimulus to the profession by presenting the specific demand that fulfils that profession's needs - that is, its public image is established by what the profession has to offer and what society demands of the profession. They believe also that the trait theorist fails to acknowledge that the power and status of a profession's supporters and clientele is likely to affect that profession's own prestige.

However, the social scientists do point out that the
characteristics that bestow the quality of specialness or uniqueness on a profession — that is, that set it aside from other occupations — must necessarily result in a practice that restricts, and even prevents, competition from outside. Professional work is not a commodity, therefore the practitioners have to market or sell themselves. They have to have the expertise to be acceptable for a market, and that market has to be created so that both demand and need is there for them to meet; and any competition from outside the profession has to be removed. So professionals establish a monopoly to secure and protect this market for themselves. To achieve this, Larson points out, the profession attempts to protect itself by establishing a standardised training program that recognises no other form of apprenticeship and by securing its position legally by "state protection and state-enforced penalties against unlicensed competitors". Carr-Saunders and Wilson termed this protection of title as an "'institutional' or 'monopolistic' advantage". They are firmly in favour of this type of legal regulation. Larson points out that by stipulating the criteria for membership, it is the profession itself which "define[s] the very standards by which its superior competence is judged"; and society can actually condone this process of differentiation, by accepting the standards and values through which the profession ensures its
autonomy over a section of labour and thereby forms itself into a distinct and expert elite. If training can be carried out under the auspices of a university, this lends additional legitimation to the standards and scope of intellectual input, but it also accentuates the elitism that is often attributed to professional status.17

In a definitive paper,18 E.C. Hughes has outlined what he considers the fundamental characteristics pertaining to professional service. He points out that professional advice and service is offered as a result of esoteric knowledge and expertise. This leads to an exclusive, legally permitted right to practice, which reinforces a close solidarity amongst the membership. As professionals are consulted, never hired, they have control over their own actions; the client's trust is balanced by self-regulation and commitment within the profession. Hughes comments on the division of labour within a profession and how "the balance of the universal and the particular in a profession varies". Acceptance into a profession frequently involves a competition for talent, and a change of status within a profession can often be achieved through further study; in fact, conflict can break out between those practitioners who are accused of being too 'academic' and those who are not sufficiently intellectual. Apart from self-employed practitioners, there are those who work within organisations. In this
case the professional's aim may change from finding a client to finding a place within an organisation; corporate employees can become so proficient in a particular aspect of the profession that although they may not be able to pick their clients, they can often pick their problems and need not be so constrained by social pressures and available work opportunities.¹⁹

1.2 Application to Veterinary Science

In discussions on their profession and professional responsibilities, veterinarians have exhorted their fellow members on the importance of the professional's devotion to duty. M. Henry wrote of the "Ideals of the Veterinarian..., which cover those general aspirations which all honest and sincere men must harbour".²⁰ R.E.W. Elliott comments on "Castles of competence... bound by a common sense of owing service to society".²¹ J.B. Herrick asks "What is a profession?" and points out that sometimes veterinarians "need to pause to take stock of what [their] profession is and who [they] as professional beings, are", although he believes that the veterinary profession "by its moral action, sets an example for society".²²

D.C. Blood, in his detailed exposition on Veterinary Law related particularly to the Australian experience, lists what he terms 13 'rules' to which he believes his profession should conform.²³ These cover such areas as
attaining a sufficient standard of training and competence, selfless service to the public, a self-regulated body responsible for registration and prosecution of those practitioners who do not match the desired qualifications for membership, and adherence to the code of ethics proposed by the Association. However, in his penultimate rule Blood incorporates the needs of the state in addition to those of the patient, client and veterinarian, specifically mentioning the veterinarian's responsibility for promoting the efficiency and welfare of the country's agricultural sector, viz.-

(a) safeguarding and boosting food production;
(b) improving the quality of food derived from agricultural produce;
(c) identifying and exploiting new opportunities in the production, processing and marketing of primary products;
(d) preserving the welfare of animals and the capacity of the environment to sustain economical harvesting. 24

Implicit in the suggestion that veterinary science should serve the needs of society is the understanding that the profession itself can gain from fulfilling that need; for if the profession fails in its obligations, it will not only lose its reputation and standing, but could find that those services will be provided by others. 25

Blood refers to an article by A.R.W. Porter in which he points out that there is a danger that members of a
profession, through self-interest, can become inattentive to the interests or wishes of society in general.\textsuperscript{26} Blood's final rule suggests that a profession should "be prepared to make its controlling legislation available for amendment by other sections of the community".\textsuperscript{27} He thus implies, for example, that malpractice can be answerable to the criticism and jurisdiction of the country's legal system rather than solely to members of a profession. If veterinary science is to benefit society, and likewise itself benefit from that contact, society too should have a right to criticise or amend legislation affecting the profession's right of practice - that is, by amending the Veterinary Surgeon's Act in Parliament. The primary objective of this Act should be to protect the public from unqualified persons, at the same time relieving the veterinarian from competing with those who are unlicensed and unfit to serve.

Thus, according to Porter, the veterinarian must be prepared to be responsible and answerable to a wider community. Porter interprets this as an acceptance of limitations on the profession's activities that may be imposed either directly by legislation (sometimes as a result of public opinion), or through the profession's own perceptions of the country's needs.\textsuperscript{28}

The notion of expendability can be reflected in the market situation for veterinarians, for in Veterinary
Science the contacts involved in professional treatment are not like the one-to-one human doctor/patient interaction, but are a three-way relationship between practitioner, client/owner and patient. The responsibility for pursuing care can be linked to Man's attitude to animals as well as to the practitioner's relationship with his client. This, in turn, is closely associated with the latter's economic wellbeing. This raises the ethical question of whether the veterinary practitioner's first responsibility is towards the patient or its owner.

If the veterinary profession is to establish a stable position in society that is regarded favourably, then it is necessary to ensure that its practitioners are familiar with not only current treatment, but also the areas of most need. It is vital, therefore, for the profession to keep its education processes under constant review. Elliott, for example, believes that in veterinary education too much emphasis has been attached to the actual treatment of sick animals, at the expense of addressing a need for preventive medicine. G.R. Fallon, however, feels that the veterinarian should be aware of the restrictions of clinical service, for in reality the profession needs to ally itself closely to the agricultural sector and should be "concerned not so much with the animal as with the product, a product which has social or economic meaning for man". For instance, he writes, even the earliest
practitioners were hired primarily to enhance mobility for the military, rather than to look after disabled horses. It is important therefore, he continues, that veterinary education should present the student with a curriculum that is balanced intellectually and practically, encompassing also the social principles associated with the wider applications of veterinary science, thus at the same time accentuating the part that veterinary science can play in enhancing the country's economic well-being.

In order to interpret the success or otherwise of the veterinary profession in Victoria in the late nineteenth and early twentieth century, it is necessary to link the historical sequence of events in the formation of a professional organisation with the recognition of the need for its services and the impact that these made.

It will be shown that the path to professionalisation was by no means a smooth and uncomplicated one for veterinary science in Victoria. On the contrary, although the veterinarians hoped to achieve professional status through the formalising of membership, this was only arrived at with difficulty; and efforts directed towards maintenance of standards of competency, recognition and acceptance by the wider society and encouragement of scientific endeavour, were initially marked by a considerable struggle.
1.3 The British Professions

In the early nineteenth century, those who were unable to aspire to the position of a gentleman with adequate resources were forced to find some form of remuneration, and the traditional pursuits of Church, Medicine and the Law had long since acquired the distinction of 'learned' or 'liberal' occupations. Those who followed these callings were regarded as honorable members of society and were usually accorded a high status.

Formal professional structures for both Medicine and Law emerged because of differing interests within the disciplines. In both cases, it was the group with the lowest standing within the discipline that ultimately provided the impetus. In their need to gain acknowledgement for their services and to improve their own status, they precipitated moves that affected their whole profession.

The medical profession was derived from a widely divided and distinct hierarchy of practitioners - the physicians, the surgeons and the apothecaries. The Apothecaries' Act of 1815 recognised the right of the Society of Apothecaries to supervise, examine and license its own practitioners. A series of attempts to formalise the structure of the medical profession in general followed in the first half of the nineteenth century, but it was not until 1858 that the Medical Act heralded the formation
of a single, unified profession with a system of examination and registration and the right to discipline its members. This legislation led to the setting up of the General Medical Council (GMC). Having satisfied a recognised licensing body (by examination) as to fitness to practise, and having then registered with this newly created authority (GMC), a doctor was permitted to practise any branch of medicine in the United Kingdom. This authorising body also had the right to strike a practitioner's name off the register, and thus it also fulfilled a disciplinary role. Final acceptance of this procedure had been achieved through a tortuous process, but the stamp of legislative approval by Act of Parliament singled it out as a landmark. By "establishing the approved pattern of a Victorian profession", 33 it acted as an example for other occupations.

Likewise in the Law, it was the lower echelon of practitioners, the attorneys, who made the first moves to develop an occupational structure that would raise their status. Several regional Law Societies were formed at the end of the eighteenth century, and then in 1825 the 'Attorneys, Solicitors, Proctors and others not being Barristers' formed a Society (to become known as the Law Society) which was granted Royal Charters in 1831 and 1845. 34 The attorneys set up standards of legal education and set about improving their position. The
barristers at the Inns of Court were able initially to rely on their already acknowledged prestige and privilege, but later, in 1872, they too brought in their own compulsory examinations.

A precedent had thus been set. By the end of the century, endowing an occupation with the title of profession became tantamount to making a "claim to social standing and recognition." The title had come to have attached to it an agenda of specialised knowledge and techniques, a sense of altruistic service and a measure of autonomy that set it apart from other occupations.

1.4 Veterinary Science

There is no doubt that British veterinarians were inspired by the example given them by their fellow medical practitioners, albeit of human medicine. In an announcement in The Veterinarian of May 1840, the veterinarians Thomas and Thomas Walton Mayer (the father and son who made the first moves towards obtaining a Charter of Incorporation for the profession) talk of the need to "afford us the same privileges and exemptions which other professional bodies possess" for "we shall feel the benefit of it in the increased esteem with which, if we are well-conducted ourselves, we shall be regarded". Following this they obtained agreement from a group of prominent practitioners to petition the Privy Council for a Royal Charter, that was to be granted four years later,
conferring upon the graduates of the Royal Veterinary College and the College of Edinburgh the title of the Royal College of Veterinary Surgeons, upon the same plan and constitution as the present Royal College of Surgeons, and then in addition, an Act of Parliament be obtained, granting unto the members of the Royal College of Veterinary Surgeons the same exemptions as the present members of the College of Surgeons enjoy.38

In a congratulatory letter to Thomas Walton Mayer, William Dick, who had founded the Edinburgh Veterinary School in 1824, wrote

I am glad to learn that you have succeeded in obtaining the Charter; I certainly did not expect it; circumstances, however, have been favourable. The present Ministers coming into power, and the agitation for the New Charter by the College of Surgeons, have aided much in enabling us to obtain what at first appeared to me very unlikely. I hope you will be as successful in obtaining from Parliament those privileges to which, as an incorporated body, we are entitled.39

The Royal Charter thus granted to the Royal College of Veterinary Surgeons restricted membership to those who had a licence from the veterinary schools in either London or Edinburgh, or candidates who in future passed the examination to be instituted by the College. As described later, it was not until 1881 that the Veterinary Surgeons Act was carried, which provided a means of legal enforcement for the provisions granted by the Charter.

1.4.1. Veterinary Science in Australia

This British Act of 1881 set a pattern for a group of expatriate British veterinarians who were by this time
struggling to have their profession recognised in Melbourne, Australia. When William Tyson Kendall drew up his initial draft of a Veterinary Surgeons Bill for Victoria in 1887, he admitted that he was modelling it on the British Act. ⁴⁰

Kendall arrived in Melbourne in 1880 and one of the first moves that he made was to contact such other veterinarians in the country as he could locate with a view to their forming their own professional association. This they appeared to do with enthusiasm, for within a matter of months they formed the Australasian Veterinary Medical Association. Their efforts were then concentrated on the establishment of their own training establishment. They wished to have one which would have a high enough standard to be recognised as a reputable and reliable college, one that would help to give veterinary science the standing in the community that would warrant professional status. To facilitate this, Kendall, with the backing of the newly founded Association, set about enlisting support for a Veterinary Surgeons' Bill.

Because in a number of respects the veterinarians fulfilled the criteria described by the 'trait' theorists as necessary in the formation of a profession, it is relatively simple to recognise the actual formal process of how professionalisation was to be achieved by veterinary science in Victoria. For in the latter half of the 1880's
moves were already afoot to provide those basic tenets attributable to a profession — establishment of a training program and a formal registering body backed up by the required legislation to enforce its membership criteria.

However, it is essential that an organisation takes cognisance of the needs of both the wider community, the individual consumer or client, and the practitioners themselves in order to achieve professional status successfully. All these needs initiated moves to promote the veterinarians' professional body in the late nineteenth century, but the continuing viability of that body thirty years later was very dependent on the socio-economic stability of the country and of the clientele themselves. Status and recognition is dependent on call for service, and traditionally a large percentage of veterinary service had been concentrated on the horse, both for agricultural, domestic and military purposes. Increasing mechanisation of transport in the early decades of the twentieth century severely lowered demand. Moreover, animal health rated low as a financial priority during times of financial hardship — generally animals were regarded as an expendable commodity. This severely affected the profession's standing after World War I, being reflected in a general slump in demand for service and training, and even leading to accusations of defeatism within the profession.41 It was some time before matters improved following an
increasing involvement with the agricultural sector.

The implementation of research programs undoubtedly affects a profession's public profile, and even raises its professional standing.\textsuperscript{42} Shortage of financial support restricted the work being carried out at the only veterinary research station in Victoria, the Veterinary Research Institute, in the early years following its foundation in 1909, but with the emergence of interdisciplinary research and government sponsorship, scientific contributions in the field of animal health made significant contributions to the country's economy. Moreover, the overlap resulting from combined research efforts in veterinary science (such as in those areas later defined as nutrition, plant production, genetics etc.) was reflected in academic cooperation generally, and provided opportunities for an extension to the field of veterinary work. This in turn has done much to encourage respect for the profession. Yet in the early part of this century there was little chance of joint participation in research programs, but with the formation of the Council for Scientific and Industrial Research in 1926 with its Division of Animal Health and its programs of applied research, both financial and practical cooperation became a reality, and the thrust of research was expanded from diagnostic studies to include issues relating to disease prevention, and increased and improved productivity.
Influential veterinarians came to stress that their profession should be seen as not only providing a therapeutic service for sick animals, but also as playing its part in helping to secure the economic wellbeing of the country. After a distinguished career in the Australian Army Veterinary Corps in the Boer War and World War I, William Tyson Kendall's eldest son, Ernest, had become Chief Veterinary Officer in Victoria in 1926. In 1934 he was appointed the first Chairman of the Victorian Milk Board, and in this capacity he gave the Third Kendall Oration in 1936 when he spoke of the role of the veterinarian, reiterating how important it was for the future of the veterinary profession to acknowledge the benefits of research and the socio-economic implications of their service, for

The future for the veterinary researcher in Australia is intimately wrapped up with the expansion and development of agriculture and the livestock industry. Indeed the maximum development of these valuable industries and the production therefrom cannot be achieved without this research.43

He pointed out that with more intensive farming due to improved pasture management and quicker turnover of stock there was an increased risk of disease, thus accentuating the need for an efficient veterinary service. The value of this service could also be improved by providing an informative educational service, particularly to the more remote areas of the country. Increased awareness by the
public, as well as by government bodies, of the uses to which veterinary expertise could be put would ensure that there would always be a demand for the veterinarian's services.

It was this acceptance of the need for, and value of, the veterinarian's services in Australia, leading to an increased awareness of their professional integrity, that W.T. Kendall and his colleagues strove for.
References


Professor Carr-Saunders, from Oxford, was one of the first social scientists to examine the organisation and activity of professions. His book, The Professions, Clarendon Press, Oxford, 1933, written in collaboration with P.A. Wilson, is widely regarded as the seminal work on the subject. Vollmer and Mills have reproduced part of the Herbert Spencer lecture which he gave five years earlier, and which is far more specific in its attempts at definition - a definition which P.Elliott (The Sociology of Professions, Macmillan, London, 1972, p.6) terms as being "within the tradition of British empiricism".

5. Carr-Saunders reminds the reader that efforts to form stable associations are not always successful in the first instance, as will be born out in Victoria.
16. Larson, op.cit., p.xii.
17. Johnson, op.cit., pp.4-5.
19. Hughes does not mention that although they might be able to achieve a wider, national reputation, corporate employees may well be affected and/or stressed by the constraints of working in a large institution or bureaucracy.
24. Ibid, p.15. Blood refers to an address given by R.E.W. Elliott, Assistant Director-General, New Zealand Ministry of Agriculture and Fisheries (see No. 29).
26. A. Porter, the current Registrar of the Royal College of Veterinary Surgeons in London, pointed out in the Central Veterinary Society's Centenary Prize Lecture in 1981, that the veterinary profession was in danger of perpetuating a pattern of "apathy, inaction and reluctance to become involved" outside the narrow confines of its own personal interests, rather than making an appreciable effort to aim for the benefit of their profession as a whole. "The profession and society", Vet.Rev., 109, 1981, 203-4.
29. Elliott, R.E.W. op.cit., 342. This criticism is, of course, equally applicable to human medicine.
31. Historical background of major professional bodies in Great Britain is provided in Carr-Saunders and Wilson, op.cit., pt.1, pp.7-106; Elliott, P., op.cit., Chapter 2; Reader, op.cit., Chapters 1-4.
32. Prior to this Act, 16 Bills had been presented to Parliament from 1840 onwards (Reader, op.cit., p.66).
33. Ibid, p.66.
34. Ibid, p.54.
36. Porter, A.R.W. Look forward to posterity: the challenge to the professions (Wooldridge Memorial Lecture, BVA/2nd European Congress), Vet.Rev., 99, 1976, p.244, states that "to be a professional man was synonymous in the public mind with dedicated service, integrity, skill and competence, and reliability".
37. Mayer, T. & Mayer, T.W., XIII(149), The Veterinarian, May 1840, 357.
38. The Veterinarian, XIII(156), December 1840, 681.
39. Pattison, op.cit., 1981, p.23. This was written before Dick's early and growing antagonism to his fellow members of the Council, elected following the granting of the Charter.
CHAPTER 2. THE BRITISH EXPERIENCE

In the eighteenth century treatment of sick animals still rested in the hands of either the cow-leech, who was akin at best to a herbalist, at the worst to an exorcisor of devils; or the farrier, who had originally been a shoer of horses but having usually served some form of apprenticeship, was a "cut above the cow-doctor" though just as ignorant. Status was connected to the superior economic and social standing attributed to the horse, and this was to have a strong influence on the emergence of veterinary education and practice.

It was because of changes in the agricultural scene, however, in the pursuit of improvements in livestock breeding and subsequent increases in meat and dairy production, that the need for veterinary support was eventually acknowledged. The first moves occurred in France. Successive and debilitating cattle plagues, and the dependence of the military on the cavalry horse, allied to the growing recognition that such ignorance and malpractice ultimately would affect the country's wellbeing, persuaded the French Government that prevention as well as cure was essential. Mounting fear and discontent amongst the farming sector led to influential backing being given to Claude Bourgelat to found the first veterinary school at Lyon in 1762, and this was soon
followed by another at Alfort (1766). Bourgelat, however, was an eminent horseman; refusing even to contemplate the serious ramifications of a rampant rinderpest plague, he confined all practical tuition to the horse. Such unwillingness to confront societal demands lost veterinary medicine much needed support in the early years.

In Great Britain the first move to put a scheme for veterinary training into practice emanated from the members of the Odiham (Agricultural) Society. Deploiring the current standards of animal husbandry, they had already shown interest in the French schools. A leading member of the Society, Granville Penn, had met a Frenchman, Charles Benoît Vial de St. Bel (commonly known as St. Bel or Sainbel) and had been very impressed by his proposals for establishing a veterinary school. However the Society also found it necessary to elicit the support of the medical profession. The enthusiastic patronage of such men as Sir George Baker, John Hunter and Joseph Banks added prestige to their cause, and in 1792 a veterinary school - the Royal Veterinary College (RVC) - opened in London, with St. Bel as Director. He was responsible for drawing up a three-year course, patterned on the French schools, and designed to provide a rigorous and comprehensive training.

Within two years he was dead and standards dropped alarmingly under his successor, Edward Coleman, with the
course eventually being reduced to a mere 3-months' duration. This had become acceptable because at a time when the College was virtually insolvent the Army wished to supply every regiment during the war with France with a veterinary surgeon and in order to do this it supported the students and backed the RVC financially. The urgency of the war situation meant that a short course was highly expedient to the Army, and profitable to the College. It was the British Army Board of General Officers that first used the title of 'Veterinary Surgeon' in 1796, so that they could be distinguished from surgeons who practised on humans. Coleman's knowledge of animals was restricted to horses. He was a medical surgeon and he received the backing of the medical fraternity. His appointment heralded a medical domination of the veterinary school which continued until after his death in 1839. With the support of influential friends amongst the medical gentlemen, Coleman manipulated the College rules to suit his personal interests, even examining his own students for their final qualification.

L.M. Crawford points out that the schools at Lyon, Alfort and London all owed their existence to an agricultural sector concerned over animal disease and stock loss. By ignoring the importance that was attached to this and by excluding the farm animal from their curricula, all three schools at some time faced a very real threat of
disintegration and of being deprived of their backing.¹²

In the meantime, in 1823, a rival school was started in Edinburgh, under William Dick,¹³ a man who not only recognised the necessity of backing up theoretical knowledge with the practical experience of treating animals in a hospital, but who also insisted that training should not be confined to the horse, but should extend to the anatomy and diseases of all farm animals.¹⁴ The Edinburgh school had the support of the Highland and Agricultural Society, which issued its own diploma to graduates of the School who were examined and found competent by a board consisting of both medical and veterinary men.¹⁵

By 1828 the situation in London had deteriorated so badly that the RVC was publicly criticised, initially in the pages of the first two veterinary periodicals that were published in England - The Farrier and Naturalist and The Veterinarian.¹⁶ But things moved slowly. Coleman resisted all challenge, fearing - undoubtedly with justification - that his autonomy would be severely reduced if the veterinarians were to have the say in running the School that they were beginning to demand. Indeed, it was reported that the Governors were afraid that the veterinarians "might interfere with the interests and lessen the profits of the College".¹⁷ Only after Coleman's death did the agitation for moves to improve the
educational standards of the London veterinary school gain sufficient momentum to get off the ground. Once the school had re-established an acceptable standard of competency, a group of veterinarians started pressing for a 'Charter of Incorporation'. With Dick's support and the cooperation of Coleman's successors, application for a charter was made to the Home Office in early 1843. In February 1844 Queen Victoria signed the warrant, whereby all persons holding the certificate of either the London or the Edinburgh school would be eligible for Membership of the Royal College of Veterinary Surgeons (RCVS). In future, membership would be limited to those graduates who passed the examination of the new College, thereby giving its Members official professional status, with all the hopes of protection from unlawful and/or incompetent practice that that entailed. The first President, Thomas Turner, called it "the salvation of the Veterinary body". It was the year that the man who was to become the first President of the first Veterinary Board of Victoria, John Aked, graduated from the Edinburgh College.

The high expectations were far from being fulfilled. After the initial euphoria had subsided, quarrels arose between the Schools, the Highland Society and the RCVS, particularly over standards and methods of examination. The RCVS felt themselves justified in criticising the Edinburgh examinations. Dick was furious and in the
atmosphere of an ever-widening rift and with the Highland and Agricultural Society standing solidly behind him, he set up his own Board of Examiners, establishing a Highland certificate of competency. A direct result of his secession was a halt in the negotiations for an Act of Parliament to enforce the Charter, there being no way that they could continue when one of the partners had withdrawn his support. The acrimony that marked the battle between Dick and the RCVS is reminiscent of that in which Kendall became embroiled in Melbourne half a century later.21 Dick was unremittingly opposed to cooperation with the RCVS which would not recognise the Highlands certificate and it was not until Dick’s death in 1866 that fruitful discussions between London, Edinburgh and now Glasgow as well, could once again take place. Ultimately, in 1876, this resulted in a revised Charter. Still there were continuing accusations and recriminations that not only highlighted the lack of unity in the profession, but also the need for Parliamentary legislation to enable the RCVS to distinguish those who were suitably qualified from those who had insufficient training. Such an Act would assist in clarifying membership of the profession and provide a means of legal enforcement of its membership criteria. It was not until August 1881 that the Veterinary Surgeons Bill was passed — only six years before one was passed in Melbourne, Victoria.
1881 was also the year in which Robert Koch perfected his method of cultivating bacteria, leading to his famous monograph the following year on the isolation of the tubercle bacillus, "the most outstanding single contribution in the history of bacteriology".\textsuperscript{22} However, Koch's change of heart over the transmissibility of the disease from animal to man led to a confrontation in 1901 between Koch and John Mcfadyean,\textsuperscript{23} the first Professor of Pathology and Bacteriology at the London veterinary school - the Royal Veterinary College. For Mcfadyean this happened at the start of a long and outstanding commitment to his profession, and in particular of a keen and rich research orientation. Initially working under poverty-stricken conditions, Mcfadyean established his laboratory in a basement at the London School, subsidised by the Royal Agricultural Society. His early enthusiasm for the new sciences, brilliant laboratory work and energetic and definitive editorship of the \textit{Journal of Comparative Pathology and Therapeutics} (which he had founded in 1888) made an indelible impact on British veterinary science.\textsuperscript{24} It was men of the calibre of Mcfadyean in London, Theiler at Onderstepoort, South Africa and Gilruth in Melbourne who were responsible for initiating and promoting the scientisation of the veterinary profession at the turn of the century. Becoming involved in research that would affect the
strength of the agricultural sector, the veterinarian also became an integral part of a team approach to scientific investigation and this was in turn influential in the advancement of veterinary science as a professional body of some standing in the community.
References

2. Crawford, L.M. The historical antecedents of veterinary medical education, JVME, 5(2), 1978, 80. Crawford reports that at one stage in the 1780's Alfort was so strongly influenced by the Physicians that courses in midwifery and human bone-setting were taught there and students tended to move away from veterinary science to medicine itself.
3. Ibid.
4. Pugh, op.cit., pp.8-16 (Chapter II The Start at Odiham in Hampshire).
5. Pattison, I. The British Veterinary Profession 1791-1948, J.A. Allen, London, 1985, p.3. Baker was physician to George III; Hunter, the eminent comparative anatomist and surgeon; Banks, President of the Royal Society. All three were elected "Honorary and corresponding Members" of the College when it was founded.
6. St. Bel, though reportedly brilliant, had had a somewhat chequered career at the Schools at Lyons and Alfort. This course was described in his Plan for Establishing an Institution to Cultivate and Teach Veterinary Medicine, London, 1790 - a comprehensive and progressive document which describes "veterinary art ... [as] ... the art of preserving the health of cattle, and eminently of horses, and of curing their diseases" and later points out that "the advantage of extending the influence of science to our farms, and of applying it to the preservation of our cattle, cannot be made to appear more sensibly, than by considering the ravages sometimes occasioned among them by contagious or epizootic diseases ..." (reproduced in Pugh, op.cit., p.143).
7. It is believed that St. Bel died of glanders - before it was recognised that it was transmissible to man.
8. Pugh, op.cit., p.100; Clabby, J. The History of the Royal Army Veterinary Corps 1919-1961, J.A. Allen & Co., London, 1963, p.11. In 1795 William Stockley graduated from the RVC and became attached to a cavalry regiment. His skills proved invaluable and influenced the decision to inaugurate a system of veterinary services to the Army, with Coleman as adviser. Whatever his other shortcomings - of which there appeared to be many - Coleman was a good administrator.
10. Ibid., p.7.
13. Dick, a farrier's son, left the London School in 1818 with a 3-month diploma, but returned to Edinburgh to increase his knowledge and to gain some experience.
He started giving lectures and received the patronage of the Highland and Agricultural Society of Scotland.

16. Pattison, op.cit., p.11 - the Farrier and Naturalist was published anonymously, but only ran for two years; the editor was probably Bracy Clark, a pupil of St. Bel's who disliked Coleman. The Veterinarian was founded in 1828 by William Percivall, who was soon joined by William Youatt; it became a well respected and reliable journal.

18. Ibid., p.19.
20. Ibid., p.23.
21. This period is described in some detail in Pattison., Ibid., Chapters 4-8; Pattison, I. The Veterinary Surgeon's Act, Vet.Rec., 108, 1981, 157-160.
23. Pattison, I., John Mcfadyean: Founder of Modern Veterinary Research, J.A. Allen, London, 1981, pp.13-19, 117-118; Pattison, op.cit., 1985, p.130-1. In 1882 Koch had written "Bovine tuberculosis is identical with human tuberculosis, and is thus a disease transmissible to man" and "Be the danger which arises from the consumption of the flesh or milk of tuberculous cattle ever so great or ever so small, it exists, and it must therefore be prevented". Yet at the International Tuberculosis Congress in 1901, Koch had maintained that "human tuberculosis differs from bovine, and cannot be transmitted to cattle" and also had declared that he did not "deem it advisable" to take any measures against possible infection in cows' milk. At the same Congress, Mcfadyean was to insist that tubercle bacilli in cows' milk was dangerous to man, and that the public should be educated to recognise this, and that there was also a need for preventive measures.
CHAPTER 3. INITIAL MOVES IN VICTORIA

As in the United Kingdom, the agricultural sector supported the first attempts to establish the veterinary profession in Australia. However, unlike Great Britain, it seems that the medical profession in Australia did not have a close relationship with the veterinarians. The resistance of the latter to the doctors having an active involvement in their decision-making may well have been a reaction to the veterinarians' British experience. Certainly those practitioners who were attempting to form themselves into a professional body sought support from any interested person or anyone who was influential in government circles; but although there were many instances of close cooperation in the examination of the causes and prevention of human disease (for example, tuberculosis), this was not extended to formal involvement at the administrative level.

However, as early as 1863, after reporting the foundation of a lectureship in medicine which it was anticipated would lead to the establishment of a medical school at Melbourne University, the British Veterinarian continued:

At no very distant day we hope to see that this wise resolve is followed by another of almost equal importance - the foundation of a chair of veterinary medicine and rural economy. A want of this kind is keenly felt in most of our
new settlements, especially those where pastoral occupations form the great source of the wealth of the colony.¹

Yet such hopes were premature. It was William Tyson Kendall, together with Graham Mitchell,² who was primarily responsible for the formation of the Australian Veterinary Association, the production of a Journal and, most importantly, the establishment of a veterinary school in Australia; and he did not arrive in Victoria until nearly twenty years later.

Early control of animal disease had been in the hands of lay stock inspectors; however, when required, the Victorian Government did call on professional service from a panel of veterinarians, all British-trained, on a part-time basis. Following his diagnosis of the initial incident of foot-and-mouth disease in Victoria in 1872,³ Mitchell was appointed the first Honorary Veterinary Surgeon to the National Agricultural Society (now the Royal Agricultural Society of Victoria). The following January he was commissioned as Veterinary Surgeon under the 1872 Stock Act, thus becoming the first practitioner to hold a Government veterinary appointment in Victoria.⁴ He was now in a good position to encourage the Agricultural Society to approach the Government regarding the possible establishment of a veterinary school in Victoria. This was originally mooted in 1873, and the following resolution was passed by the Society on 8th August of that year:
that in consequence of the increasing prevalence of disease among stock, it is deemed advisable that steps be taken to initiate a veterinary class with a view to affording the sons of stockowners, farmers etc. the opportunity of being instructed in the means of preventing and curing disease. That application be made to the Government for its cooperation in establishing a veterinary hospital in Melbourne where stock will be treated at a moderate scale of charges and to afford students the opportunity of witnessing practice.  

At this stage, it was envisaged that such an establishment should be "supported by the Government and managed by the Council of the National Society or instituted as a branch of the Department of Agriculture". A committee, which included Mitchell, was appointed to promote this plan. In the following year, a number of prominent citizens made an unsuccessful appeal to the Lands Department for a site for a veterinary college. This request would be made repeatedly and its lack of success was particularly frustrating.

The Australian of the 8th August 1874 commented on the Second Annual Report of the Secretary for Agriculture, Mr. A.L. Wallis. The Department had issued a circular to every ascertainable stockowner in Victoria requesting information about the extent of disease amongst stock, as it was felt that there was a "need of a more wide-spread knowledge of veterinary art among the stock-owners of this Colony." This information was collated and reported on to the Minister by a medical practitioner, Mr. W.
Thomson FRCS, and his suggestion was that a veterinary school should be established in connection with the Medical Faculty at Melbourne University; he felt that "such an amalgamation would make veterinary medicine more scientific, human medicine more comprehensive, and both more useful." Richard Bennett, a pastoralist, vehemently denied the value of such a move, indicating that it would merely lower the standards that should be achieved for the veterinary student.

In the university amalgamation scheme he would be theoretically educated, and be imposed upon the pastoral community as a quack ....

A series of articles by Bennett, which appeared in the Agricultural Society's Journal in 1874 and 1875 and were reprinted in the English journals, expressed great concern regarding the diagnosis and prevention of epizootic diseases, emphasising the impact that these could have on the country's economy:

...it is only by our colonies possessing an efficient staff of properly trained and qualified veterinary surgeons that we can hope to deal successfully with and stamp out disease when it makes its appearance.... In the institution I am proposing the student would be practically educated and presented to the country as a properly qualified veterinary surgeon, fully competent to deal with diseases or accidents in every presentable form.

The whole subject had a reasonable coverage in the British journals. In 1875 The Veterinary Journal
commenced publication in London, and often included articles or news from Australian contributors. In the first volume there were at least two articles by Mitchell.\textsuperscript{16} In October the Editor commented specifically and favourably on Bennett's proposals:

The school should be founded by the colony ... let no one enter the school who had not received a general education equal to the medical student, and allow none to practise veterinary medicine until they had studied for a period of at least four years...In no way, perhaps, could our Australian brethren more largely benefit themselves and others, advance the science of medicine, and both directly and indirectly promote the aims of civilisation, than by creating such a school.\textsuperscript{17}

An editorial in 1877 reported, as it turned out unduly prematurely, that a veterinary school was to be established in Melbourne and that this would benefit society for:

if (the Colony) wishes to keep its wealth undiminished, or to increase it ... it cannot do better than institute a veterinary school on a good footing. While benefitting Australia in a very material way by so doing, it will also be conferring a benefit on humanity, so far as animals are concerned, and will be directly promoting medical and agricultural science.\textsuperscript{18}

Nothing, however, eventuated and in 1880,\textsuperscript{19} Bennett brought the subject up again, this time emphasising the point that stock inspectors should be qualified veterinary surgeons. Once more he appealed particularly to
stockowners to give their support, but again with little practical success.

Kendall later recalled reading a report in the *Veterinarian* of a meeting of stockowners called by Mitchell to discuss the advisability of establishing a veterinary school in Victoria, and of his jokingly suggesting going to Melbourne to join Mitchell, little knowing that he would do exactly that, opening the first veterinary institute in Australia within six years of his arrival in February 1880.

Kendall not only had no plans to settle in Australia, he arrived quite unintentionally. Having completed his London training and having practised in the Lake District for six years, he left Ambleside and emigrated. He was en route for New Zealand when he found himself with a 4-day stopover in Melbourne. During this time he contacted the veterinarians who were in practice, changed his mind about going to New Zealand and, deciding to settle in Melbourne instead, commenced his first practice at the Glaserick Big House Bazaar in Bourke Street, opposite Kirk's Bazaar.

Sixteen months later, in answer to a specific request, Kendall, together with a group of his fellow practitioners, sent a report to the Secretary of the British National Veterinary Congress with the intention of letting their fellow members in Britain know of the steps being taken "to elevate [the] social and scientific status" of the
profession in Australia. They praised the efforts being taken to protect the profession under the new Veterinary Surgeons Bill in Great Britain and recognised this as setting a precedent that they should try to emulate, pointing out that:

the profession in these colonies are fully alive to the necessity and importance of many radical changes being made in the internal organisation of the profession, and that it is only by the united action of members of the profession and steady perseverance that these objects can be attained.

3.1 The Attributes:

3.1.1. The professional association

In 1857, Robert Gibton wrote to the Veterinarian heralding the arrival of the "legitimate veterinary surgeon" in Australia after years of the colonies being served by unqualified men of all types. He was convinced that the veterinary profession would become acknowledged and respected through the hard work and integrity of the practitioner "thus endeavouring to prove that we are what we profess to be so as to raise the profession in public estimation". He reported that a "handful" of professionals had attempted to form their own society, but that it had been a failure. It was the first recorded attempt at formal organisation.

Kendall obviously had close contact with Mitchell following his arrival in Melbourne in 1880, and within a
matter of months he had persuaded other veterinarians to form an Association, the Australasian Veterinary Medical Association (AVMA), reportedly with Mitchell as presiding President, himself Secretary, and the elderly Mr. Vincent as Treasurer. The members met monthly and proceedings were published in the daily press. The value that the members themselves attributed to this Association can be gauged by the fact that full particulars, including a membership list and the rules, had been forwarded to, and included in, The Veterinarian. This showed another list of Office-Bearers and Members as follows:

President - The Hon. Sir Charles McMahon
Vice-Presidents - J.P. Vincent and Graham Mitchell
Chemist - R.W.E. MacIvor, V.C.S., etc
Botanist - Baron Ferd. Von Mueller, K.C.M.G., M.D., F.R.S.
Counsel - The Hon. H.J. Wrixon

Honorary Members included the British Professors Fleming (President of the RCVS); Simmonds, Brown, Tuson and Cobbold of the London School; Williams and Walley of Edinburgh, and McCall of Glasgow; also M'Eachran and Law from America, Williams of Belgium and Chauveau from Paris. After this impressive list there were but 14 local members. The objects of the Association were stated to be "The advancement of Veterinary Science in the Australasian Colonies, and to guard the general interests of the profession". Sadly, despite its ambitious beginnings, the Association was short-lived, in 1883 becoming a casualty of
the dispute that arose over the purchase of land for an educational establishment.

Immediately following the passing of the Veterinary Surgeon's Act in December 1887, it was decided that steps be taken to draw up a second Veterinary Association, the formation of which has been variously reported. Kendall himself states that a revitalised association, increased by new members recruited from recent arrivals in Australia, and now known as the Veterinary Association of Victoria, was responsible for drumming up support for the Veterinary Surgeon's Bill – that is, that the new Association had been formed before the Act and had been instrumental in initiating its introduction to the House. On the other hand, Hindmarsh (who was at one time the Honorary Archivist for the Australian Veterinary Association), mentions the break up of the Association formed in 1881 and reports that 1890 saw the start of The Veterinary Association of Victoria, - that is, well after the Act was passed.

Once the first Veterinary Board of Victoria (that was formed under the terms of the Veterinary Surgeons Act of 1887) had embarked on its deliberations regarding which of the non-graduates practising in Victoria could become licensed to practice, the Association underwent another change. When the Board drew up its list this was divided into two parts - the first for Members of the RCVS, and the second for non-graduates. This dichotomy caused a lot
of ill-feeling, resulting in a splitting of the Association. The Veterinary Medical Association of Australia (VMAA) was formed mainly of the practitioners registered under the 7-years-practice clause of the Act, while the graduates formed the Royal Veterinary Graduates' Society. The Board Minutes\textsuperscript{34} mention that "4 or 5 disgruntled graduates" were amongst the VMAA membership, without naming them, and Robertson reports that C. Marson was the President in 1891.\textsuperscript{35} As their secretary they chose H.A.M. Christophers, whose services as Registrar to the Board had been dispensed with after several stormy meetings in 1890. There was open hostility between the two groups and members of the VMAA were resentful of the discrimination they felt had been forced upon them by the Board. Again these associations had but a short life. With the passage of time, the RVC graduates would be replaced by graduates of Australian colleges and the composition of the professional association, as well as the Veterinary Board, would change. The 1st Veterinary List of 1888–89 had consisted of 11 graduates and 12 non-graduates, but by 1891 the balance had changed to 18 graduates and 53 non-graduates, the latter's rapid increase being due to the compulsory registration of the new registered men resulting from the provisions of the new Act.\textsuperscript{36}

3.1.2. The \textit{Journal}

In 1882 Mitchell and Kendall, together with T. Chalwyn,
produced the first *Australasian Veterinary Journal*. This was published monthly, but ceased publication after a year. The first number included an Australasian Register of Qualified Veterinary Surgeons as provided by the AVMA; this appears to be a list of those with British qualifications, though there is no specific explanation of the criteria for inclusion. This publishing of the register was also always done in the next publication, the *Australasian Veterinary and Live Stock Journal* which was produced in 1890, during the tenure of the first Veterinary Board of Victoria. The 1882 journal also announced that veterinary science was to be included in the curriculum of the new agricultural college to be established at Dookie. Apart from articles pointing out the desirability of establishing general veterinary hospitals, veterinary schools and a veterinary surgeons bill,37 both journals acted as a vehicle to promote enthusiasm for the veterinarians' cause, reporting comprehensively on local news, including the progress of attempts at enlisting Government aid.

Since the inception of their Association, members of the AVMA had been carrying on an active campaign to raise public awareness, and increasing pressure was being put on individuals and Government departments.38 The major aim was the establishment of an educational institution and, in
1882, these overtures elicited a response. The Minister of Lands, the Hon. Walter Madden, offered the Association a block of land in the Richmond Police Paddock. The Journal, in reporting on this, pointed out that because of complaints from Richmond residents that a veterinary college/hospital would be a public health hazard, the Victorian Board of Health would have to ascertain whether such an institution would be satisfactory from a "sanitary point of view". Despite its size, which some members thought totally inadequate (only a 30' frontage), the AVMA decided to accept the offer in the hopes of bartering it for somewhere else that was more suitable. In the interim, however, this proved to be a source of misunderstanding and disappointment. Mitchell, in his capacity as President of the AVMA, had gone ahead and employed a firm of architects to draw up plans for a veterinary hospital. The Government then bowed to the residents' demands, and cancelled the grant. The AVMA denied liability for the architects' account refusing to admit responsibility for Mitchell's precipitate action, and Mitchell himself was sued. This dispute put too great a strain on allegiance to a fledgling Association, and in 1883 led to its break-up and the consequent discontinuation of the Journal.

In 1884 Kendall gained the backing of the City Council for the erection of a college on a reserve adjoining the Horse Market in Sydney Road, himself offering to guarantee
the interest of 5% on the outlay.\textsuperscript{41} It was then
discovered that the land could not be used as it was
reserved for market purposes only. After these setbacks,
Kendall (in his own words) "determined to establish a
private college"\textsuperscript{42} and he purchased buildings at 38-40
Brunswick Street, Fitzroy, to which, in 1885-6, he added a
hospital and classrooms, initially opening in 1886 as "an
institution for the reception of diseased animals".\textsuperscript{43}

3.1.3. The legislation; The Veterinary Surgeons Act.

1887

Kendall felt it was vital that, before establishing the
College, he should seek protection for his students through
a Veterinary Surgeons Bill that would endorse veterinary
science as a legally recognised profession, setting up
standards for its members and excluding those who did not
fulfil its criteria.

Kendall reports that as Secretary of the new
Association, he was responsible for drawing up the initial
draft of the Veterinary Surgeons Bill, modelling it on the
British Act of 1881 (which in turn had confirmed the RCVS
Charters of 1844 and 1876).\textsuperscript{44} E.M. Pullar recounts that
Kendall's draft was subject to considerable "mutilation"\textsuperscript{45}
and change, whereas Robertson\textsuperscript{46} mentions "slight
modification". Certainly the final Victorian Act is very
similar to the main clauses of the British Act. Introduced
by Mr. J. Bosisto, MLA for Sandridge, the only amendments
listed were for Clause 20, the first part [20(1)] of which related to the criteria for recognition by the Board.\textsuperscript{47} The Hon. H. Cuthbert moved that the Bill be read in the Legislative Council for the first time on the 13th December 1887.\textsuperscript{48} The literature\textsuperscript{49} points out that it was in the Legislative Council, at Dr. Beaney's insistence, that an amendment changed the length of the course to four years; this formed Clause 20(2) of the Act. This was a challenge for Kendall, for in meeting it the Melbourne Veterinary College (MVC) then became the first veterinary school in an English-speaking country to have a 4-year course — those in England and Scotland (as stipulated in the 1881 British Act) being for three years.

The Veterinary Surgeons Act — "An Act to establish a Veterinary Board and to regulate veterinary practice in Victoria" — was carried on 17th December 1887 and came into operation officially on 1st January 1888 (see Appendix 1). Part I stipulated the composition of the Board that was to be set up and its modus operandi, and Part II defined the administrative issues of registration. Part III, Clause 20(1) defined those eligible to register — notably those practitioners who already held a qualification from the RCVS, or from any veterinary school or college recognised by the Board; and those practitioners who did not meet these qualifications, but who had been practising in Victoria as a veterinary surgeon throughout the 7 years immediately
preceding the 1st January 1888. This last clause differed from the British Act, which stipulated a period of 5 years. Clauses 20(2) and 21 gave the exact requirements of subject curricula for examination of students. This clearly placed the responsibility for the examination, and therefore possible registration, of all students qualifying to sit (these being, at this period, students of the MVC) in the hands of the Board.

There appears to have been an agreement between Bosisto and Kendall50 that, on the one hand, if the Act was passed preparations would already be in hand for a veterinary college, and, on the other, that if the college were built and plans made for its opening, the Act would provide protection for its students by legitimising their subsequent professional qualification. The College relied on the Board for its credibility; and in turn, for its own survival, the Board needed a reliable training establishment to produce the future members of the profession. It was an uneasy interdependence and certainly initially the relationship was not a harmonious one.

On Wednesday, 28th December 1887, an Official Dinner and Meeting of a dozen of Victoria's veterinarians was held at Gunslers Cafe, Collins Street, Melbourne, with Mr. Bosisto as speaker.51 It seems probable that this was a celebratory dinner because it was held just eleven days after the passing of the Veterinary Surgeons Act,
immediately following the Christmas holiday. Presumably this meeting was also held so that the veterinarians could then advise the Governor of their own choice of representatives to go on the Board. There being no existing mechanism for election, the Act had included a clause enabling the Governor in Council to appoint the first Board.

It would seem that unfortunately Mitchell still held a grudge against Kendall which appeared to date from the time when he had pre-empted the Association's wishes and had proceeded with obtaining architectural plans for college buildings in 1882-3. Ernest Rivett's name had been included amongst those suggested as Board Members at the first preliminary meeting. He had been 2 years junior to Kendall at the RCVS and then became his assistant for a while at Ambleside. Kendall persuaded him to come to Australia to teach at his College, and he and his family lived with the Kendalls on arrival. Rivett was specifically invited to form a partnership with Kendall over the MVC and was given the honour of delivering the first lecture there (in Anatomy). Within a year he and Kendall were having serious disagreements, the dissolution of the partnership becoming the subject of a court case which Pullar recalls was one of Kendall's "many legal actions". However, correspondence from Bosisto addressed to the provisional Board suggests that the
delay in gazetting the names of Board members might well have been due to the fact that Mitchell had made formal complaints to the effect that Kendall and Rivett were partners in the one veterinary establishment and therefore only one of them should be on the Board. Rivett, who was apparently Secretary of the provisional Board, took strong objection to the contents of Bosisto's letter, pointing out in correspondence to H. Wragge that Mitchell had already complained that the meeting was illegal and that unqualified men were present (referring apparently to Mr. J. Cohn, whose qualifications were from Copenhagen). This discrimination against foreign graduates was to be a source of contention during the tenure of the first Veterinary Board of Victoria. Rivett wrote that "not the slightest objection was ... raised by my election and I fail to see why I should withdraw, and consider that I am not in a position to do so..."

The second preliminary meeting, on 24th April 1888, is recorded in the Minute Book of the first Board, although the first official meeting of the Board did not take place for another two months. It was decided that a deputation should wait on the Minister of Agriculture to try and expedite the appointments to the Board.

When the names were eventually officially gazetted on 22nd May Mitchell's name appeared in the place of Rivett's. On the night of the last preliminary meeting
Mitchell died,\textsuperscript{57} but his place on the Board was taken not by Rivett, but by W.D. Rogerson, the inference being that the Association was unwilling to risk upsetting its friends in government circles.

The first official Board meeting took place on 26th June 1888; the Membership was as follows:

J. Aked (Chairman); grad.Dick 1844; practice-Sandhurst.  
Wm.T.Kendall; grad.London 1873; practice-Fitzroy.  
W.D. Rogerson; grad.London 1867; practice-Kyneton.  
A. Sharp; grad.London 1868; practice-Prahran.  
G. Snowball; grad.Dick 1851; practice-Ballarat.  
H. Wragge;grad.London 1851; practice - Newmarket/ Melbourne.

The three main duties of the Board were (i) to set standards for examination for Membership and the appointment of examiners; (ii) the registration of graduates of recognised institutions, and others in accepted categories; and (iii) the prosecution of those who practised while not fulfilling the recognised criteria and who therefore infringed the provisions of the Act.\textsuperscript{58}

Two factors seem to have been paramount in directing the antagonism of a faction of the Victorian veterinarians towards Kendall. Firstly, certain of them felt that he had upstaged their efforts to obtain a National College (and by this they were referring to a Colonial institution, located in Melbourne) and had even prejudiced their immediate chance of any measure of success.\textsuperscript{59} Kendall's belief that his enterprise was merely a temporary measure, a stop-gap until
the Government stepped in and assumed the responsibility itself, appears to have been quite genuine. However, some of his fellow practitioners obviously were not of the same opinion and there was a strong division of opinion amongst their ranks, as was to be evidenced during the clashes that took place during the tenure of the first Board.

Secondly, there was a certain amount of resentment towards Kendall's Animal Hospital which, by offering alternative treatment, had undoubtedly affected the income of the private practitioner. The attitude towards domestic animals and their illnesses in the nineteenth century was such that Kendall initially found it difficult to obtain cases and he was forced to purchase his patients, selling them on recovery (sometimes back to their owners). But within 18 months the infirmary had treated 500 inpatients (mainly horses and dogs) and had become a definite financial success. Ultimately, Kendall too would find his clientele diminishing as his students graduated and set up practice themselves in Melbourne; but initially the practice did finance his College, whilst earning him the jealous acrimony of some of his colleagues.

The minutes of the first Veterinary Board of Victoria give ample proof that members had strong opinions that they were not afraid to express. Disharmony was evident from the start of the Board's triennium, and seriously prejudiced
the transition of Kendall's College to a recognised training establishment.\textsuperscript{63}

3.1.4. **The educational institution: The Melbourne Veterinary College**

Kendall had opened his "veterinary institute" (Appendix II) in 1885. According to an account of the public opening given in *The Veterinarian* in the new year, amongst "fifty gentlemen interested in horse, stock, and veterinary science", the Chief Inspector of Stock, E.M. Curr, remarked on the need to counteract "the widely-prevailing ignorance of veterinary science amongst landholders and the heavy losses of stock annually resulting therefrom".\textsuperscript{64} Kendall added classrooms to the existing premises so that they could act as a College and the first six students enrolled in January 1888. Kendall presumably thought that once the Veterinary Surgeons Act had become law, he would witness the formal legitimization of his training program.

There could be no examinations until the College was recognised and examiners appointed and this the newly created Board proved extremely reluctant to do. Kendall repeatedly requested approval for plans to examine his students who were finishing their first year's tuition. By delaying taking action, the Board nullified the College's ability to have its students examined, something that was mandatory under the terms of the Act. A sub-committee of the Board comprising Sharp, Wragge and Marson was appointed
on 19th December 1888\textsuperscript{65} to inspect the MVC and to report back to the following Board meeting. By a series of procrastinations, this group managed to postpone any decision-making until the Board meeting held on 17th April 1889. All members were present at this meeting; Wragge\textsuperscript{66} and Marson proposed a ballot on the School in which Kendall should not be permitted to vote. Kendall immediately claimed his right to vote, with the result that the ballot was registered as Yes - 4, No - 3 and the School was recognised. At the very next meeting, on 15th May 1889, Sharp gave notice of a motion to rescind this recognition, declaring:

> After the last meeting in comparing notes it was plain that mistakes had been made and that the voting did not represent the feeling of the Board.\textsuperscript{67}

It is indicative of the conspiratorial machinations that had been going on, that Sharp talks of "comparing notes" when in fact a secret ballot was meant to have taken place. He then launched into a virulent attack on Kendall:

> Mr. Kendall's place is simply a stable and in my opinion only fit for such, the provisions made for teaching appears to me defective in every way especially in Anatomy which is one of the most important branches in Veterinary Science.

The Board as a public body are expected to do their duty, and I may say bound to do so, but in the face of facts which I have stated, depend upon it we should be making a serious and grievous mistake of recognising such an establishment. Let us make an effort to establish a College on something like a firm foundation.
Foreseeing trouble, Rogerson, Marson, Aked and Wragge promptly gave notice "that they wished it recorded on the Minutes of the meeting that they will not be responsible for any law costs or expenses after this meeting."68

Sharp's notice of motion that Kendall's school be not recognised was based on alleged anomalies in the MVC Prospectus69 which he called "an account of misrepresentation which was deceiving and misleading to the Board."70 Sharp's accusations over the staffing at the College were to prove somewhat inaccurate;71 far more serious were the repercussions over the part-time appointment of Professor A.H. Jackson as teacher of chemistry. Kendall had initially arranged with the Pharmacy Board that his students should attend Jackson's lectures at the Pharmacy College but on learning this, the Veterinary Board insisted that these lectures could not be recognised as they had not been taught on the premises of the Veterinary College, implying that these lectures took place at a place of education that was not recognised by the Board. Consequently Jackson had to repeat the course at the MVC, but this in turn led to his being informed by the Secretary of the Pharmaceutical Society, Shillinglaw, that he was precluded from teaching outside the Pharmacy College, and Kendall was also confronted and told to remove Jackson's name from his Prospectus. There is a copy of a letter from Jackson to Kendall dated 10th July 1889 stating
that he was prepared to enter on active duty at the Veterinary College in Term 2 1889, and that Kendall could quote the letter to "prove [the] falsehood" of Shillinglaw's accusations.\textsuperscript{72} An article about this, upon which Sharp based his accusations, appeared in the Australasian Journal of Pharmacy. While Kendall took legal action against the Pharmaceutical Society, the Veterinary Board formally rescinded their recognition of the College. Kendall insisted that a statement from himself be tabled and placed on record, defending the standing of the MVC.\textsuperscript{73} The question that "recognition be not rescinded"\textsuperscript{74} was repeatedly raised at each meeting from July to the end of the year, with Aked and later also Snowball supporting Kendall. Snowball pointing out that "the objections raised by the Board hav[e] been removed".\textsuperscript{75} Even inquiries from both the Minister of Agriculture and the MVC students evinced no positive response.\textsuperscript{76}

Kendall's court case against the Pharmaceutical Society was heard in October 1889 and he was vindicated, though not compensated financially to the extent that he had wished.\textsuperscript{77} Soon after this, at the October meeting of the Board, the motion to have the College recognised was then raised again. The recorded result of "Carried" has been crossed through, initialled (by whom is not stated) and altered to "Lost" (Appendix III).
At the meeting of 18th December 1889 a third letter from the Minister was tabled asking, somewhat impatiently, if the Board had any intention at any time to recognise any veterinary school in the Colony. The Board's reply that they were willing to reconsider any well appointed school to which properly qualified and effective professors are appointed and where every other preparation is made and provided for the effectual teaching of the students was carried on the casting vote of the Chairman. Sharp was absent from this meeting. This is relevant as he subsequently requested copies of all Board Minutes and then tendered his resignation (which was not accepted). He seems by now to have been seriously reconsidering his stance which had been particularly vindictive. At the January 1890 meeting he attacked the Chairman, Wragge (who had taken over from Aked), over his handling of certain registration issues. Sharp disputed the recommendations regarding some non-graduates, especially Mr. McLachlan of South Melbourne. Sharp then proposed "that the Board had lost confidence in the President, Mr. Wragge, and that he leave the Chair." Wragge refused to carry on, adjourned the meeting and left the room with Rogerson, Marson and the Registrar. In a letter to the Registrar written after this meeting Aked admitted:
I was afraid that the termination of the last Board meeting would end in litigation and unpleasantness. The Veterinary Bill had done much harm, it will take the profession a long time to recover.

By the February meeting, Sharp, obviously disgusted by the Board's irregularities, had been won over to Kendall's side. At the meeting on 19th February 1890, six Members were present, along with two strangers, who remained unidentified in the Minutes. Marson was absent. Sharp requested Wragge to ask the visitors to leave. When he refused, Sharp suggested that business should not proceed until they left, but after an hour this was waived. However, Wragge then refused to commence business and, accompanied by Rogerson and the two strangers, left the meeting, removing the Minute Book and papers. The four remaining Members (Aked, Kendall, Sharp and Snowball) presumably considering themselves a quorum, elected Sharp to the Chair and proceeded to dismiss the Registrar and pass a series of vital motions, including the recognition of the MVC (Appendix IV) and the setting up of a Committee of Inquiry, one of the tasks of which would be to look into the Board's handling of registrations. Wragge later defended his actions in a 6-page letter to the Board, but admitted that he felt it to be "impossible that the Board in its present condition can carry out the Veterinary Act correctly... which amply justified an enquiry being made into the proceedings of the Board."
A Special Meeting of the Board was called on 5th March which proved to be the turning point. Despite questions that there might be some doubt of the legality of the meeting, once the Minutes were confirmed they were not challenged. At this March meeting Wragge refused to sign the Minutes of the previous meeting, as he protested that he himself had not been present. Eventually he agreed to leave the room temporarily so that Sharp could resume the Chair in order to sign the Minutes as "Chairman pro tem". At this meeting a Board of Examiners was agreed upon, and the MVC was finally in a position to fulfil the stipulations made in the 1887 Act.

3.2 Registration Issues

As a first step, in 1881 the AVMA had managed to get the names of all unqualified men removed from the list of veterinary surgeons in the "Melbourne Directory" and had followed this by issuing its own record of qualified practitioners living in the colonies. However, after the passing of the Veterinary Surgeons Act the question of the registration of non-qualified practitioners was a most sensitive issue. As the Act legislated for the prosecution of anyone who practised as a veterinarian whilst being unregistered, the law also had to make some provision for those who had been carrying on some type of veterinary service to the community. The Act therefore permitted the registration of those who:
... have been continuously practising in Victoria as a veterinary surgeon throughout the seven years immediately preceding the commencement of this Act.\textsuperscript{87}

The area of contention lay in the Board’s interpretation of the phrase "continuously as a veterinary surgeon". There was absolutely no stipulation about training, ability and type of practice, though to be admitted as Members practitioners may not have been considered guilty of any "offence...felony, or misdemeanour by the Board" (Clause 17). Not surprisingly, unqualified men at first far outnumbered those with formal qualifications.

The first Board consisted entirely of RCVS members who seemed to find in themselves a measure of moral dilemma over the question of whom they should register. Once he had joined the Board,\textsuperscript{88} Rivett regularly drew the Board's attention both to the number of unregistered persons who were practising - he thought that the Board should see "that it was put a stop to"\textsuperscript{89} - and to the calibre of person being admitted to the Veterinary List. With no guidelines to go by, Board Members had a lot of trouble defining the parameters of their own profession. When the RCVS had attempted to draw up its first register, it had been inundated with "various denominations of horse-doctors, horse-surgeons, farriers, cowleeches, cattle-doctors, castrators, spayers and gelders, charmers,
spell-workers, butty-colliers, water-doctors and various other appellations". The Victorian Board did severely restrict its List, but it faced much conflict in doing so.

Initially the Board agreed to post an advertisement in the Government Gazette and in the Argus, Age, Herald, Daily Telegraph and Weekly Times, as follows:--

Notice is hereby given that applications for registration under the (1887) Act will be received and dealt with by 'The Veterinary Board of Victoria' up to 21st November 1888.

This gave those wishing to gain registration only three months in which to apply. Having provided this mechanism, the Board then proceeded to prevent its abuse:--

Notice is hereby given to persons illegally practising as veterinary surgeons or using the term veterinary or otherwise infringing under 'The Veterinary Surgeons Act 1887' on and after the 30th November 1888 be immediately proceeded against by the Veterinary Board of Victoria.

This sounds threatening, but in reality the fines imposed were often so small that they failed even to cover costs, let alone to act as an effective deterrent.

As early as December 1888, Snowball wrote to the Register:

In reply to yours re Registered applicants I cannot conveniently attend the Meeting on the 5th but vote and maintain that the Board adhere to their original decisions, otherwise if influenced and waver by everyone that thinks fit to bounce and bully them, the Board loses that power as Board and becomes a farce and laughing stock.
There is nothing in the Act referring to appeal to the Supreme Court or its having any jurisdiction, and there is no provision that the Supreme Court can register them. I for one insist that the Board carry out its decisions firmly, otherwise they become a mere tool in the hands of the dissatisfied individuals. In event of any appeal, I for one shall be willing to subscribe towards defraying the expenses.93

Apart from frequent disagreements amongst the Board Members, pressure was obviously also brought to bear on them by enraged applicants who had been turned down, as there are several references to threats of legal actions. At one stage Wragge and Marson stated that they "would not hold themselves responsible for any legal expenses", to which Kendall and Rivett countered that the Board should not be coerced into passing applicants who were not eligible94 and Snowball "strongly deprecated the system of bringing pressure to the Board ... by appealing to their representative in Parliament."95

The Board discriminated against unqualified men when drawing up the first three Veterinary Lists. These Lists were divided into two parts - the first for Members of the RCVS, and the second for non-graduates. In the case of foreign graduates an unfair situation arose. At the first full Board Meeting it was agreed that the qualifications of graduates from Veterinary Colleges at "Alfort, Lyons, Berlin, Copenhagen, New York, Bombay, Montreal, Stockholm
and any others that may from time to time be recognised by
the Board" should be recognised. Berne was added to
the list three months later. There were initially two
foreign graduates wishing to register - J. Cohn (later
known as Cohen) from Copenhagen and W. Engeman of Berne.
Despite the alacrity with which the Board had recognised
their Colleges, these two men were registered on the No. II
List of unqualified practitioners. Kendall and Aked
attempted to remedy this situation by suggesting that all
men possessing diplomas be placed on the No. I List for
1890, but this was defeated.
3.3 Later Developments

The dichotomy between the two Veterinary Lists which
had been bitterly opposed by the VMAA was abolished during
the term of the 2nd Veterinary Board (which had been
elected in 1891 at the conclusion of the term of the 1st
Board). In 1901 efforts were made to start both an
association and a journal amongst the graduates of the MVC,
the number of RVC graduates being gradually depleted. But
numbers were still small, and it was not until 1912 that
concrete steps were again taken to form State
associations. In the meantime, veterinarians had been
able to present at meetings of the Australian Association
for the Advancement of Science (AAAS), firstly in the
Agriculture Section, and later at the 14th meeting in 1913
in their own sub-section. At this latter meeting Max
Henry, who had been active in establishing a New South Wales Veterinary Association, gave a paper in which he stressed the need to aim for the formation of an association at a national level—a theme he was to return to again. This provoked general interest and although it was to prove premature, representatives from each State met in Melbourne in early 1914 to consider the proposal. However in the meantime it had been resolved that each State should form its own association with the hope of these eventually merging. Meetings took place at the end of 1913 with the intention of forming a Veterinary Association of Victoria (VAV), the first formal meeting of which was held on 23rd March 1914. Again the criteria for membership were the cause of concern and disquiet, with the same registered men wishing to have equal rights with those who held degrees. However the outbreak of World War I brought all preliminary discussions regarding Veterinary Associations to a temporary halt, until the resumption of meetings of the VAV in March 1920 and of Max Henry's negotiations for a national organisation. The latter came to fruition at the inaugural meeting of the Australian Veterinary Association (AVA) held in Melbourne in January 1921. The third annual meeting in August 1924 endorsed the decision to establish an 'official organ of the AVA' and in March 1925 the Journal of the Australian Veterinary Association was issued, with Max Henry as its
first Editor. Recognising the importance of this innovation and adding to the journal's reputation, one of its sponsors was the Editor of the Medical Journal of Australia, Dr. Henry W. Armit.101
References

1. Veterinarian, XXXVI(424), April 1863, Fourth Series No. 100, 222.
2. Graham Mitchell graduated from the Dick College with a diploma of the Highland and Agricultural Society in 1854, and migrated to Australia soon after.
3. Described in detail in Pullar, E.M. "Foot and mouth disease in Australia with particular reference to the Victorian Incident of 1872", Vic.Vet.Proc., 1964-5, 12-18. This incident served to highlight the need to involve a veterinary service in the diagnosis and prevention of epizootic diseases, as the control of livestock and stock diseases was then the responsibility of the Chief Secretary.
5. Reported in the Veterinarian, XLVI, 1873, p.785.
8. Ibid.
11. Ibid. p.128.
12. Bennett, R. "Proposed establishment of a veterinary college in Melbourne, Australia", J.Nat.Ag.Soc. of Vict., Sept 1874, January and May 1875. These were also reprinted in Veterinarian, XLVIII(566), 1875, 126-131; and XLVIII(574), 1875, 793-797. In 1902 this journal was incorporated with the Journal of Comparative Pathology.
13. Particularly bovine pleuropneumonia which incurred enormous stock losses.
15. The first editor was George Fleming, a brilliant and powerful member of the RCVS Council, who played an important part in the controversy over educational standards in Great Britain (Pugh, op.cit. p.85). It was a reliable and definitive scientific journal. In 1949 it became the British Veterinary Journal.
16. Vet.J., 1, 1875, 284-286, 287-288. As the author of the articles are not mentioned, it is difficult to be sure which articles can be attributed; but from correspondence it can be assumed that at least these two can be attributed to Mitchell.
21. Mitchell, J. Vincent, C. Marson and W.W. McGuire. The latter was studying Medicine at Melbourne University; Vincent was already over 80; Marson became a member of the 1st Board.
22. Kendall, op.cit., undated, 76. Many of the veterinarians practised in the area near Kirk's Bazaar - this is now replaced by Hardware Street, and McKillop Street. Pullar (1961-2) states that Kendall himself first practised in the Royal Horse Bazaar, but Kendall mentions Glazerick several times.
25. Veterinarian, XLVI (542) 4th Series, No. 218 of February 1873 has an obituary for a Mr. Robert Gibton MRCVS of Melbourne, who gained his diploma on May 18, 1849. However, Robertson (see reference no. 32) speaks of Robert Gibton who was also a lawyer, who after graduating in 1851 in London gained a commission in a cavalry regiment, but when he reached Australia failed to be accepted by the Military. He then gave up practice and became Clerk of Courts at Warrnambool, where he stayed for 20 years before practising as a barrister. However, he kept up his interest in veterinary practice and was one of the founding members of the first Association. He died in 1891.
27. There were Branch Secretaries in all colonies and New Zealand (Hindmarsh, W.L. "Historical records of the veterinary profession in Australia, II. Veterinary organisation", Aust.Vet.J., 38, 1962, 508.
32. Hindmarsh, W.L. op.cit., 508. Hindmarsh refers to notes left by W.A.N. Robertson (now held in the Archives, AVA and Melbourne University); however, these are only in a preliminary form and have proved to be inconsistent on several points.
33. Known as Registered Men.
34. Veterinary Board of Victoria (VBV) Minutes Book 1887-1890, 5.3.1890.
35. Robertson, see above, undated, 5. Marson was a "rebel" MRCVS.

38. Kendall, op.cit., 1913, 707-8. Kendall pointed out that Mitchell, Stewart and Chalwyn had often appealed for support through the public press. The Australasian Veterinary Journal [1(6), 1888, 59] mentions that copies of suggestions by the AVMA had been forwarded to each Member of Parliament and to agricultural societies. In 1882 the Veterinarian (LV, 1882, 630) reported that the AVMA had made an application for land to the Minister of Lands.

39. Ibid., 1(7), 71.


41. The site of University High School or the Royal Melbourne Hospital car park.

42. Kendall, op.cit., 1917, 4. In his personal papers and printed articles, Kendall always insisted that he did this in sheer desperation, as an interim measure until the Government recognised the College's worth and took it over. He alleged that the whole arrangement was ultimately carried out at some considerable cost to himself, and was certainly not a means of gaining a measure of personal profit. He wrote "I was losing £1000 a year for 20 years and securing nothing for my services. I had to stand all the expenses and take the full responsibility without any monetary or other help, except that my staff accepted moderate salaries". (Kendall, op.cit., undated, II, p.36). He also makes it quite clear that on more than one occasion he was forced to sell his home and move his unfortunate family to cheaper, rented accommodation, often at some distance from the College, to help cover costs.

43. Australasian Veterinary Journal, 1(7), 1(8). In 1893 Kendall extended the site by purchasing a double block at the rear (55-7 Young Street).

44. Kendall, op.cit., undated, II, 23; op.cit., 1913, 710.


46. Robertson, W.A.N., op.cit., 1931, 205.

47. Parliamentary Debates Vol.56, 1887, 2574. Bosisto was personally known to Kendall, sympathetic and was considered useful as he had also been responsible for getting the Pharmacy Act through the House.
49. Pullar, op.cit., 1958, 43; 1964, 5; Albiston, op.cit., 1951, 53; Robertson, op.cit., 1931, 205; Kendall, op.cit., undated, II, 23. This particular amendment does not appear in the Votes and Proceedings of the Legislative Council, as the aforementioned amendment to Clause 20. Robertson mentions that originally Kendall had proposed a 2-year course similar to that in America and this was the form used in the Bill presented to Bosisto. The requirements for length of course and subjects for examination are clearly stated in Clause 20(2) of the Act.
50. Kendall, op.cit., 1913, 710.
52. Pullar, op.cit., 1958, 45.
55. VBV Minutes 1887-1890. Charles Marson (MRCVS 1855) according to Robertson, ran a hotel in Mordialloc before practising in Melbourne.
57. Pullar, op.cit., 1968-69, 16. Mitchell had retired to his rooms which were also in Kirk's Bazaar, and he apparently died in his sleep. As he often went up country, his absence wasn't investigated until 10 days later, when his body was found.
61. Robertson, op.cit., undated, particularly mentions Wragge, Sharp and Marson - he reports that they even went so far as attempting to get Kendall to go into partnership with them, and when he refused they became very bitter.
63. On one occasion Rogerson was requested to "retract his scurrilous and ungentlemanly remarks about several members of the Board and to tender a full apology", VBV Minutes, 16.4.1890.
64. The Veterinarian, LX, 1886, 769-770.
66. VBV Minutes, 17.4.1889.
67. VBV Minutes, 15.5.1889.
68. Ibid.
69. Sharp culled these directly from an article in the Australasian Journal of Pharmacy of 20.3.1889.
70. The VBV Minutes of 15.5.1889 recorded this statement in full at Sharp's request.

71. The accusations against McBride had a sad sequel. McBride, whose lectures were highly praised by students, had taken over from Rivett, but claimed to have misplaced his diploma. The Board refused him registration, his health broke down and he died in October 1889. The missing document turned up in Victoria in November.

72. Papers of the Veterinary Board of Victoria.

73. VBV Minutes, 19.6.1889.

74. Ibid.

75. VBV Minutes, 21.8.1889.

76. The Hon. M. Graham; letters tabled at meetings of 17.7.1889 and 16.10.1889.

77. Pullar, opera cit., 1957, 103; 1960-6, 40; Hughes, K.L. op. cit., 25.

78. VBV Minutes, 18.12.1889.

79. VBV Minutes, 15.1.1890, see 4.4.

80. Ibid.

81. VBV Minutes, 2.2.1890.

82. Papers held by the Veterinary Board of Victoria indicate that they were Messrs. King and Shaw - 2 newly registered men. There are also notes to the Chair signed by Aked, Sharp and Kendall seeking that these men leave the room. VBV Records, Melbourne.

83. VBV Minutes, 20.2.1890.


85. VBV Minutes, 19.2.1890. (see Appendix V).

86. Kendall, op. cit. 1881, 611.


88. Rivett was nominated to the Board on 16.7.1890, after Sharp's accidental death.

89. VBV Minutes, 17.9.1890.

90. Pattison, op. cit., 1985, 44.

91. VBV Minutes, 29.8.1888.

92. VBV Minutes, 21.11.1888.

93. VBV Records, Melbourne.

94. VBV Minutes, 15.10.1890.

95. VBV Minutes, 17.9.1890.

96. VBV Minutes, 21.8.1888.

97. VBV Minutes, 21.11.1888.


100. Vet.Rec., XXXIII, 1921, 477.

CHAPTER 4. VETERINARY EDUCATION

4.1 The Melbourne Veterinary College

Kendall never made any secret of the fact that he viewed his action in opening his own college as only an interim measure until the Government accepted the responsibility of equipping and supporting its own school, but his very decision to establish an institute of a recognised acceptable standard excused the Government from hastening to pursue further action themselves. There was on-going antagonism from other, undoubtedly jealous, practitioners towards Kendall for establishing a private school for "profit". When Sharp advocated the non-recognition of the MVC and its facilities, his resentment of Kendall was marked:

It is not necessary to give free hospital practice neither does it follow that the interests of private veterinarians should suffer by the introduction of free hospital practice.¹

to which Kendall replied

A veterinary college ... will never afford the facilities for practical training without introducing free hospital practice and so interfering with the interests of private practitioners - and in any case would not be self-supporting.²

Again Sharp's hostility was noticeable

...neither was it the intention of anyone interested in getting the Act through, that a private school should be established for the benefit of a single individual. The intention was and is still to establish a Public College, presided over and managed by a Committee of competent persons...³
Teaching had begun in January 1888 at the MVC but, as we have seen, because of the dilatory behaviour of the Victorian Veterinary Board, it was not until March 1890 that a Board of Examiners was agreed to for the students at the MVC. The first examinations were conducted in June 1890, and the final examinations for the first four students took place in November of the following year. E.M. Pullar lists 61 students as having graduated eventually from the MVC and of these, 24 students transferred to the University of Melbourne Veterinary School when it was formed in 1909.

In 1891 there was an attempt to transfer veterinary teaching to a State institution. With a public institution in mind, Kendall had submitted to the Veterinary Medical Association of Australia four alternative methods for forming a Trust or Directorate. These were, first, the transfer to the Trust by lease of the educational part of the College, with the right of renewal; secondly, the lease of the entire establishment with the right of purchase; thirdly, purchase of the goodwill of the establishment, and lease of the premises with the right of purchase; finally, purchase of the freehold property and fixtures, and of the goodwill of the practice and College, but with a stipulation regarding the retention of the principalship and management for an agreed term. The Association obtained an offer of land at
Spotswood, where they proposed a new school should be erected with Kendall as principal. Presumably this proposal was mooted with the intention of placating those veterinarians who wished to establish a national institution in Melbourne (national at this time, prior to Federation, referring to the Colony of Victoria alone), at the same time easing the financial pressures which, despite Sharp's accusation of profit-making, Kendall insisted were endemic in running a private college. By appointing Kendall as Director, he would still be given a considerable measure of authority. However, even though he himself would be compensated for the loss of his Fitzroy practice, Kendall felt that the proposed new geographical location was poor enough to be impractical and even harmful to the promotion of veterinary education, and the idea was dropped.

Kendall's financial difficulties in supporting the MVC became increasingly acute and the precariousness of his position at last convinced supporters of the profession that an educational institution should be established on a more permanent footing.

4.2 The University of Melbourne School of Veterinary Science

The Minister of Agriculture, The Hon. George Swinburne, suggested that the University of Melbourne's newly appointed Professor of Anatomy, Richard Berry, should
inquire, prior to his leaving Edinburgh for Melbourne in 1906, about the standard of veterinary education in Great Britain, and should draw up "a statement as to the lines on which a model Veterinary department should be instituted."\textsuperscript{10} Berry came from Edinburgh and had had some contact with the Dick College and its Principal, Professor R. Dewar, and he now made special visits to Liverpool, Dublin and London. In due course he reported that

It cannot be too strongly borne in mind that there is now in Great Britain and in other European countries a very decided awakening as to the importance of veterinary science, and there is consequently an important movement everywhere visible for raising the standard of veterinary education.\textsuperscript{11}

Berry was adamant that the expansion of veterinary science was crucial to the wellbeing of the State; in fact, in his report he alluded to the fact that he had previously stressed the need for a strong veterinary department for Victoria. In order to gain the manpower and expertise to implement this, veterinary education should be autonomous and not a part of, or modelled on, the medical course; it should be of a high standard, pathology and bacteriology receiving first priority; and it should be attached to a University able to institute its own degree in Veterinary Science. Ideally, the staff should hold both medical and veterinary qualifications and the head of department must be a trained scientific investigator. Berry also made
valuable suggestions about siting and finance.

In April 1906 a deputation from the University called on Swinburne in order to present this report formally. Preliminary exploratory negotiations followed between Swinburne and Sir James Barrett, Chairman of the University Council. These men provided powerful backing for the veterinary profession. Swinburne was vitally interested in education and his biographer, F.W. Eggleston, indicates that a liberal course of education associated with specific vocational training was central to both his personal and political philosophy. He also recognised the importance of pure scientific research and later supported the creation of the Council for Scientific and Industrial Research (CSIR). One of his chief aims for his Ministry was the provision of an agriculturally orientated education of this kind through the establishment not only of Agricultural High Schools, but also of a Chair of Agriculture and a School of Veterinary Science at the University of Melbourne. In 1908 Swinburne was to be appointed by the Government as one of its nominees on the Council of the University.

However, in 1907 a joint Committee of University and Government representatives had been formed to investigate the terms for setting up a University School of Veterinary Science. The members of this Committee, under the Chairmanship of Barrett, were Professors Berry,
W.A. Osborne and Baldwin Spencer and Dr. R.J. Bull for the University and, representing the Government (that is the Department of Agriculture), the veterinarians W. Macdonald and S.S. Cameron, Dr. T. Cherry (the Victorian Director of Agriculture, to be appointed to the first Chair of Agriculture at the University in 1911) and the Secretary for Agriculture, Mr. E.F. Duffus. Kendall, Dr. W.F. Norris, Mr. E. Bordeaux and Dr. S.O. Wood represented the veterinary profession.15

The Advisory Committee turned down Berry's suggestion to base the expenditure on that given to the British establishments. In order to cut costs at the start it was eventually agreed to utilise existing facilities such as Kendall's hospital and the College of Pharmacy. Initially this was opposed by the University representatives, but, rather than prejudice the chances of opening a new department, they eventually gave way. The Committee recommended that there should be governmental assistance for the first ten years, and that all monies should be administered separately from the general University funds. Although Berry's report had made specific recommendations for a veterinary college, it had made no mention of a research institute. The report of the Advisory Committee, however, states clearly that the scheme that they had to consider was to embrace "(1) Veterinary Education, and (2) Veterinary Research".16 The Committee stipulated that a
Research Institute should be erected, at a cost of approximately £4000, for the investigation of diseases of stock. It should also be used for teaching in conjunction with the University Department and all third year students should do the main part of their work at the Institute. It was suggested that a Pathological laboratory and an Anatomical dissecting room should form the nucleus of the Institute.

At the University of Melbourne Council meeting in March 1908 it had been reported that there had already been some mention in the press about the requirements of a veterinary school, and it was therefore deemed appropriate that a strong deputation should be sent from the University to the Premier, Sir Thomas Bent, to "lay before him the position of the University in regard to the veterinary college and ask for a definite statement as to his proposals".17

Prior to establishing a department within the University there was apparently considerable negotiation with Kendall over a financial settlement for the use of the MVC facilities, and over his own appointment as Lecturer in Veterinary Medicine. As the costs involved in providing a new veterinary hospital would have been well outside the scope of the proposed budget, the committee eventually agreed unanimously upon a compromise. This allowed £200 per annum to be paid to Kendall for the use of his hospital, and his appointment for four years as a lecturer
in Veterinary Medicine at a salary of £500 per annum. He agreed to transfer to the University the students who were already enrolled at the MVC, and that the whole of their fees would be paid to the Veterinary Fund for the new department. This left the Government eventually to find £3250 per annum and £4000 towards building costs, mainly to be incurred in establishing the research institute.

The Regulations for a Degree and a Diploma were soon drafted and in July 1908 it was reported in Council that a letter had been received from the Minister (i.e. Swinburne) setting out the following conditions:

(a) A grant made of four thousand pounds for building and three and a half thousand for equipping a University School of Veterinary Science;
(b) The endowment to be three and half thousand pounds per annum for 2 years, then four thousand pounds;*
(c) The financial management of the School was not to be in the hands of the University but of a Committee of the Council, of which the Minister of Agriculture should be a member;
(d) Teaching to commence in 1909. A Lecturer in Veterinary Anatomy and Surgery to be appointed and arrangements made for the teaching of Anatomy and of Histology and Physiology.

*This was changed to four thousand two hundred pounds.

In August the University formally requested, and was granted, an endowment to be guaranteed for ten years, not to be included annually in the Estimates.
Swinburne's letter ended with his personal wish and "anxiety that every care should be taken to make the School and Institute a decided success, and a credit to both the University and to the Government".  

Melbourne City Council had been granted 2 parcels of land in 1856 and 1878, situated close to the University between Flemington Road and Park Street, the former being designated expressly for the purposes of a "Hay, Straw, and Horse Market". Swinburne persuaded the Council to transfer this land to the Crown, by Act of Parliament, revoking the limitations placed on the first plot.  

This land was then made available for the establishment of a School of Veterinary Science, but with the stipulation that it be owned jointly by the Minister of Agriculture and the University of Melbourne.  

Swinburne was instrumental in gaining the appointment of Dr. John Anderson Gilruth (then Chief Veterinarian with the New Zealand Department of Agriculture), as the Foundation Professor, at a salary of £1000 per annum, the appointment to be for 5 years in the first place. He had first met Gilruth when he was visiting New Zealand in his ministerial capacity in 1906. He was obviously much impressed and recorded in his personal diary that Gilruth was "a strong man". Swinburne insisted that Gilruth should be invited to accept the position, and that the University should pursue his appointment without first
calling for applications.\textsuperscript{25} On 2nd July 1908 the Veterinary Committee presented its Report to Council recommending Gilruth's appointment.\textsuperscript{26} It was an unanimous recommendation and was significant in that it had the approval of both the Government and the University, as well as the veterinarians themselves. S.S. Cameron, one of the Government's representatives, had been instrumental in drawing up a detailed statement of Gilruth's work to present to the Committee. Gilruth had graduated from the Glasgow Veterinary College in 1892 and was admitted to Membership of the RCVS in the same year. The following year he took up an appointment as New Zealand Veterinary Surgeon and from there was sent to study bacteriology at the Pasteur Institute, thence developing a lifelong interest in research. Gilruth had attended two more short courses at the Pasteur Institute in 1901 and 1907 in addition to his original 6-month attachment in 1896. The Institut Pasteur had opened in Paris in 1888 so that research on the great master's achievements in the field of bacteriology could be continued. It is reported\textsuperscript{27} that the Director of the Institute, Eli Metchnikoff, regarded Gilruth as one of the Institute's most brilliant scholars. The list of his original research and investigations was already prodigious.\textsuperscript{28} He was elected a Fellow of the Royal Society of Edinburgh in 1907 and a corresponding Member of the Société de Pathologie Exotique of Paris, and
the extent of his work in New Zealand and his influence in the establishment of the Health Department was recognised by his being given honorary membership of the New Zealand branch of the British Medical Association as early as 1901. In 1906 he was selected by the Transvaal Government to take over from Stewart Stockman as Chief Veterinary Officer there. This offer was transmitted by the Imperial Government to the New Zealand Government, which was so reluctant to lose Gilruth's services that the offer was never passed on to Gilruth himself.

Gilruth's experience in New Zealand made a lasting impression there - his 16-year stay was later referred to as the "Gilruth Era" when "the control regulations inaugurated by Gilruth saved New Zealand from stock losses which it would be difficult to compute in pounds sterling". When he left he received many letters of congratulations and regret. As a New Zealand obituary notice pointed out:

He was possessed of a powerful personality and a superiority complex, dominance was one of his chief characteristics... As Chief Veterinarian and Pathologist of this Dominion, he displayed marvellous executive ability, great scientific knowledge and inexhaustible energy and enthusiasm, which inspired all his subordinates... Trained in the best schools and laboratories of Europe, his research work brought him into the front rank among the investigators of disease throughout the world.
The influence on Gilruth of the time he spent in Paris resulted in an emphasis on pathology and bacteriology in both his research and his teaching, and he continued to encourage this when he became Chief of the Division of Animal Health of CSIR in 1930.

In July 1908 the University Council agreed that Gilruth be engaged as soon as possible, and that his advice should be sought immediately regarding the curriculum and organisation of the veterinary school, and the building and equipment of the institute, before the Council proceeded any further with its own consideration of such matters. In September of that year Gilruth visited Melbourne to discuss the proposals. It is apparent from surviving correspondence that Gilruth himself played an important part in the preliminary moves; exerting considerable pressure to get his own way over the formation of the Department. According to his wife's later recollection,

When the Premier of Victoria invited John Anderson Gilruth to come to Melbourne in 1909 (sic) to discuss building the first Veterinary School in Melbourne one had to travel by sea. He arrived, and then looked for a suitable site to build the new school. The site he chose was adjacent to the Medical School of the Melbourne Hospital, so as experiments could be carried out on animals before passing for human beings. This site was refused by the Premier of Victoria so Gilruth returned to New Zealand by the same boat which brought him. After 3 weeks had lapsed, the Premier of Victoria sent a letter telling Gilruth he could have the site he chose for the new veterinary school.
so he returned, and went ahead with his plans for the first veterinary school in Victoria.\textsuperscript{35}

Swinburne, who had by this time resigned his portfolio, wrote to Gilruth

I was very pleased to receive your kind letter of the 9th and can assure you [I] left the Agriculture and Water Departments with great regret. I took an interest in the work both from a scientific and commercial point of view. It was a great satisfaction to me to get the City Council to grant us 4 acres for the laboratory and they passed it finally last week - also to arrange before I left your annual appropriation of £4200 for 10 years...You therefore start, I trust, feeling confident for the future. I look for great things and see no reason now why you should not make Melbourne the centre of veterinary science for all Australia. I have a profound pleasure in having secured your good self to direct it. I will do all I can to help you when you come.\textsuperscript{36}

The University was indeed fortunate that Gilruth did return to Melbourne.

On 2nd March 1909 an Act of Parliament No. 2174, later incorporated into the University Act of 1890, formally provided for the establishment of a veterinary school in the University of Melbourne.

With Gilruth as Foundation Professor, the University School opened with its first students in 1909. At the Inaugural Dinner,\textsuperscript{37} the Chancellor, Sir John Madden, made a point of praising Kendall and his College. Professor Baldwin Spencer "confessed that Universities had, up to recent times, been rather the homes of conservatism" but that now the University would become the seat of the kind
of learning that would be of assistance to the public and the nation. In his view, the establishment of the Schools of Agriculture (1907) and Veterinary Science were the "most useful developments in recent times". The Lord Mayor followed by pointing out that the City Council was very much aware of the necessity of developing a meat trade and of raising the standard of the food supply, and in a moment of euphoria promised that if it was found that 4 acres was insufficient, and it was necessary to acquire another paddock, no doubt the Council would come to the party. It was an open and tangible recognition that veterinary science could play an important part in the economic development of the country.

4.3 The Veterinary Research Institute (VRI)

Condition 3b of the Government Grant of £4200 per annum to the University for the new Faculty was that results of all "investigation" in veterinary matters should be reported to the Minister and also that

...courses of work in the agricultural colleges in Victoria be utilised for the practical application of the knowledge gained at the University, and that approved courses of work done in this connexion at agricultural colleges will be recognised for the purpose of fulfilling certain of the conditions necessary to obtaining University degrees or licenses in the subject of Veterinary Science.38

Under the terms of the Act, the Foundation Professor of Veterinary Pathology (i.e. Gilruth) in addition became the
Director of the Veterinary Research Institute (VRI), also known as the Stock Diseases Research Institute.

4.4 Syllabus: Course Content

Clauses 20(2) and 21 of the Veterinary Surgeons Act of 1887 had given the exact requirements for the curricula, syllabus and examination of students. In his Inaugural Address at the opening of the MVC, Kendall had pointed out that the Act was unique in stipulating a four year course, and had added that the manner in which the College was attached to a hospital practice meant that students had excellent opportunities of gaining both theoretical and practical knowledge.\textsuperscript{39}

Pullar\textsuperscript{40} gives a list of subjects for these first students:

1st year: Elementary Anatomy; Practical Chemistry & Elementary Physics; Biology (Elementary Zoology and Botany).
2nd year: Anatomy of domesticated animals; Physiology and Histology; Veterinary Hygiene, Sanitary Science, Dietetics and Stable Management.
3rd year: Morbid Anatomy, Pathology and Bacteriology; Materia Medica, Pharmacy, Therapeutics and Toxicology; Principles and Practice of Shoeing.
4th year: Equine Medicine and Surgery; Bovine Medicine and Surgery, and diseases of the Dog, Sheep and Pig; Parasites and Parasitic Diseases.

The facilities at the MVC included a lecture hall, chemical laboratory, dissecting room, museum, library, dispensary and farriery, as well as the hospital. In 1891 a bacteriological laboratory was constructed for "giving
instruction on this now all-important branch of medical science, and for conducting original investigations and experiments on the causes of obscure diseases". By this time, bacteriology had become a separate 3rd-year subject.

Students did not have to have passed a matriculation examination to enter the MVC - they were required only to pass a Preliminary Educational Examination before presenting themselves for the first examination - and therefore when the University took over veterinary education, allowance had to be made for this. Matriculation was mandatory for entrance to the University, so it was arranged that a four-year course should be initiated which led to a Licence in Veterinary Science (L.V.Sc.), and for which it was not necessary to have matriculated. This would be suitable for those students who transferred to the University from the MVC. However, there was also a four-and-a-half year course for matriculated students leading to a Bachelor of Veterinary Science degree (B.V.Sc.). Thus arrangements were made to cater for those students who had moved from the MVC to the University Department, and these remained in force until January 1914. Students who gained the L.V.Sc. were eligible for registration, and special courses were run for those who wished to upgrade their qualification to a B.V.Sc. As well as attaining the B.V.Sc. through
examinations in the fourth and fifth years, it was also possible to attain it by thesis in conjunction with a special examination. Under a rule that was applicable until January 1919, practitioners who had already graduated from the MVC and had been registered by the VBV could take a 6-week postgraduate course and if they also passed a special examination based on the fourth and fifth year subjects, they could be admitted to the Degree of Bachelor of Veterinary Science. The University also made provision for higher degrees of Master of Veterinary Science and Doctor of Veterinary Science.42

One of the stipulations for being admitted to the License was that a student should have attended lectures and laboratory work, and passed examinations, in Pathology with Bacteriology (and in Agricultural Botany with Mycology) at the University, even if he or she had successfully passed the third year at the MVC which included both these subjects. This implies that despite the syllabus having similarities, there was a certain tightening up of the standards expected by the University Department, and an insistence by Gilruth on an expansion of the course content.

The VRI ran a daily outpatient clinic and it was thus able to provide students with patients for their practical training. There were an estimated 1200 patients annually - a heavy demand was from cabbies - the charge being 1s. a
visit. The Institute could cater for up to 24 horses (there were two dark boxes for ophthalmic cases), 30 dogs and cats, and 6 pigs or sheep.43

L.B. Bull44 points out that Gilruth revolutionised the teaching of veterinary pathology in Australia. He emphasised investigation and observation, so that learning through practical experience as an adjunct to the textbook introduced the students to a new approach to learning. Pathology and bacteriology were taught in the third, fourth and fifth years of the curriculum. Albiston also mentions the teaching of parasitology by Dr. Georgina Sweet. Despite its having originally been a minor subject in the curriculum, she developed it into one carrying considerable weight. Sweet, as well as Gilruth, influenced a band of young researchers who were later responsible for break-throughs that would prove of considerable value to the country's agricultural sector.45

R.M.C. Gunn, who initially held an appointment as Lecturer in Veterinary Anatomy and Surgery at Sydney University, declared in his Presidential Address to the AVA in 1926, that

it is well recognised that the best teaching is impossible unless the teacher himself is doing original work and that the function of a school is not only to impart, but also to increase knowledge.46

It was all the more important, therefore, that by the terms of the agreement with the University in Melbourne, the VRI
was able to work in close proximity to the Department, playing its part in the teaching program and building up its own research ethos.

4.5 Closure of the Department

Unfortunately for the Melbourne Department, in 1911 Gilruth joined a scientific mission to the Northern Territory led by Baldwin Spencer, and the following year he resigned from the University to take up a post there as Administrator. He was a great loss to the University, and to the profession, until he eventually returned as Consultant to the new Division of Animal Health within the CSIR in 1929, becoming its acting Chief the following year. His successor at the University, Harold A. Woodruff, did not arrive from England until 1913, and then was only at the University for two years before taking leave of absence in order to depart on active service with the Australian Army Veterinary Corps in France.

The 10-year grant to the University was due to run out in 1918, and this came at a most inopportune time. When there was a world-wide decline in demand for veterinary services, due partly to the increasing mechanisation of transport and the agricultural sector. During the war years many veterinary surgeons had held military commissions, but on demobilisation they found that the automobile and tractor were taking over from the horse, while the low value of livestock discouraged expenditure on
them. Moreover, the country had resorted to using the services of laymen during the war; even the Department of Agriculture had been appointing lay inspectors and was unable to offer the profession any promise of increased employment in government positions. A second Australian veterinary school had been established in 1909, at the University of Sydney. The Victorian Department of Agriculture now suggested that there should be one veterinary school located in Melbourne, and one agricultural school situated in Sydney, and this was accepted by the Victorian Government and officially proposed in June 1918. The situation was considered pressing enough for the University to recall Woodruff from the front in an effort to drum up support for the continued existence of his Department. Meanwhile, the Professor at Sydney University, James D. Stewart, who had been considered unfit for active military service but had been sent to Melbourne as Director of Army Veterinary Services in Australia, had already rushed back to Sydney in 1917 in order to defend his own Department. The efforts of the profession's supporters were partially successful and renewed funding for the Melbourne Department was forthcoming, but this time for only five years. By 1923, when the grant ran out again, the situation had worsened. Veterinarians were being forced to leave the countryside, and with such a poor outlook in private practice it was not
surprising that University enrolments fell.\textsuperscript{50} The situation got so bad that in 1927 closure of the Melbourne School could no longer be avoided. One student, William E. Chamberlin, was sent to Sydney for his final year's instruction but returned to Melbourne for examination, whilst the last two students were transferred to Sydney for their last two years.\textsuperscript{51} The Sydney University Veterinary School which had been established in 1909, was fortunate enough to be supported by a handsome endowment under the terms of the David Berry Hospital Act of 1906.\textsuperscript{52} This gave the Sydney School a clear advantage over Melbourne when, because of falling enrolments, the question of closure was raised. Undoubtedly, the Sydney University Department was in the stronger position economically. Having an established source of financial backing, they were not in the position of having to drum up support from successive governments.

A conference with the Victorian Minister of Agriculture and attended by representatives of the CSIR, the Agricultural Department and the Development and Migration Commission, looked into the question of the future of the Melbourne Department, and it was decided to await the arrival of Sir Arnold Theiler, who had just retired from the world-renowned research at Onderstepoort, South Africa.\textsuperscript{53} Theiler had been invited to Australia at the instigation of the Chairman of CSIR, G.A. Julius, to make
recommendations on the role of the new Division of Animal Health. However, now that teaching had discontinued in Melbourne, the fate of the University Department could be pertinent to any proposals for developments within CSIR; so at the University Council meeting held in May 1928, it was proposed that a Committee should be set up under Theiler's guidance, to look into what conditions for veterinary research could be agreed upon between the CSIR and the University. This Committee consisted of Professors Woodruff, T.H. Laby, W.E. Agar and S. Wadham from the University; Drs. H. Albiston, S.S. Cameron, G. Fethers and E.A. Kendall representing the veterinary profession; and Messrs Swinburne and E. Bordeaux for the Government. Woodruff did not attend any of the Committee's meetings. At this same Council meeting (7th May 1928) it was reported that Woodruff had been offered the position of Director of Bacteriology at the University, a timely vacant position created by the death of Dr. R.J. Bull. Originally there had been two other contenders, but they were not prepared to take the position for the advertised tenure of one year in the first instance. Woodruff's appointment would be open to review after 1928. He was to continue as Professor of Veterinary Pathology on the understanding that he give his whole time and energy to Bacteriology, anything to do with veterinary science being only in an advisory capacity. Despite this,
cost of the salary of £1100 was to be split between the two Departments.

In August 1928 Theiler's committee recommended to the University Council that the Veterinary School should be carried on primarily as a Research Institute on the closure of the teaching, for they agreed that "this laboratory diagnosis work for the Department of Agriculture is of paramount importance in the State". Teaching had discontinued, but the University Council made some provision for the future by recommending that:

the Veterinary School be carried on for the present as, chiefly, a Research Institute, but so that teaching should be readily resumed and the teaching Staff built up when a demand for teaching again manifests itself.

The Faculty of Veterinary Science was never disbanded. This not only enabled graduates to proceed to higher degrees, but also ensured that at any time the University of Melbourne Professorial Board and Council could still consult the Faculty on veterinary matters.
References

4. Pullar, op.cit., 1958, 47. J.W. Cother, H.H. Edwards, J.B. Leitch, A.E. Callow. A fifth student, J.L. Burns, passed his second and final examinations, having taken his 1st examination in Edinburgh. However, he was declared by the Board to be ineligible for registration because he had not attended one recognised college for 4 years. After much correspondence and the usual delaying tactics, Burns was issued with a special certificate in April 1893. He was eventually allowed registration in June 1909. Burns could otherwise have been the first student to graduate from the MVC.
6. Kendall, W.T. Letter to President and Members of the Veterinary Medical Association of Australia, 3.3.1891, Papers of the VBV, Melbourne.
10. University of Melbourne file 1908/73 Veterinary School, Appendix A Report by the Professor of Anatomy in the University of Melbourne as to the requirements of a veterinary institute, 2.
11. Ibid, 2.
14. Ibid, 442. Swinburne resigned from Council in 1913, but was re-elected in 1917 and served until his death in 1928.
15. As listed on the Report of the Advisory Committee to Council, University of Melbourne File 1908/73 Veterinary School. University of Melbourne Minutes of Council for June 1907 give a slightly different composition for the succeeding Veterinary Committee that was appointed to consider the appointment of the professor — viz: Professors Berry, Osborne and Spencer, Bull and Mr. A.C.H. Rothera for the University; Cameron, Cherry, Norris, Bordeaux and Mr. W.J. Colebatch for the Government. Norris was an M.D.
17. University of Melbourne Minutes of Council, March 1908. In 1902 Bent's government had increased the statutory endowment to the University to £20,000 for 10 years and promised £12,000 for buildings and equipment for mining
and agricultural courses if the University could match this sum. £13,325 was raised through the graduates, £3,000 of which was endowed as a prize for scientific research by David Syme (Blainey, G. *A Centenary History of the University of Melbourne*, Melbourne University Press, Melbourne, 1957, 26).

20. University of Melbourne Minutes of Council, August 1907. The first 10-year period ran out in 1918.
22. University Act No. 2174, 2.3.1909; reprinted in University of Melbourne Calendar, 1910.
23. University of Melbourne Minutes of Council, July 1908. In 1910 the Government offered these same conditions for the appointment of the Foundation Professor of Agriculture (Minutes of Council, December 1910). Berry, on the other hand, only received £900 per annum until the death of Professor Halford (Minutes of Council, June 1905). All these emoluments included £100 per annum towards superannuation insurance.
24. Swinburne, G. Personal diary, 5.2.06., University of Melbourne Archives. A qualification that Swinburne rarely added to the appointments listed in his diaries.
26. University of Melbourne file 1908/34 Gilruth, Professor J.A. Report of Veterinary Committee, 2.7.08.
28. Ibid. Over 60 reports and articles are listed by Cameron.
31. Anon, "The 'Gilruth Era'", *NZ.J.Ag.*, October 1945, 397.
32. Gilruth Papers, Basser Library, Australian Academy of Science, Canberra.
34. University of Melbourne Minutes of Council, July 1908.
35. Letter from Mrs. J.A. Gilruth to Dr. Harold Albiston, 19.9.63, Basser Library, Australian Academy of Science, Canberra. Even with allowance for some discrepancy in dates in her recollections as Gilruth's appointment was announced in July 1908, it is unlikely that she would
have been mistaken about his precipitate return home. The Gilruths arrived in Melbourne in January 1909.


37. The University of Melbourne School of Veterinary Science Prospectus, 1909.

38. University Act, op.cit., condition 3c.


40. Pullar, op.cit. 1961-62, p.44.

41. Melbourne Veterinary College Prospectus, 1891, p.7.

42. University of Melbourne Calendar, 1910.

43. University of Melbourne School of Veterinary Science Prospectus, 1924.


45. Albiston, H.E. "Veterinary education in Victoria", Aust Vet.J., 27, September 1951, 256. A zoologist, Sweet was to become the first woman Associate Professor to sit on Council.


47. Pullar, op.cit., 1958, 50.


49. Idem; Albiston, op.cit. 1951, 256.

50. Albiston, op.cit. 1951, 256. Pullar felt that the decline in demand for veterinary services was part of a world-wide recession; in the years 1914-27 the number of veterinary institutions in the United States dropped from 25 to 12 (op.cit., 1958, 50).


52. Clunies Ross, I. "The Faculty of Veterinary Science: A Silver Jubilee number: History of the Faculty of Veterinary Science, University of Sydney: The foundation of the Faculties of Veterinary Science and Agriculture", Aust Vet.J., 5, 1935, 170. Under the terms of his Will in 1889, David Berry bequeathed £100,000 not only to build a hospital at Berry, but to provide for the establishment of agricultural and veterinary schools.

53. The University of Melbourne Minutes of Council, December 1927.

54. E. Bordeaux originally qualified in Lyons, then graduated from the MVC in 1902, obtained his D.V.Sc. from the University of Melbourne in 1928. He lectured on Canine Diseases at the University Department, and was attached to the Agricultural services.

55. The University of Melbourne Minutes of Council, May 1928.
56. Woodruff held this position, which was later converted into a Chair, until he retired in 1944.
57. The University of Melbourne Minutes of Council, August 1929.
58. Idem.
CHAPTER 5. RECOGNITION OF THE VICTORIAN QUALIFICATION

Under the terms of the British Veterinary Surgeons Act of 1881, allowances were made for the recognition of certain qualifications other than those granted by the RCVS itself:

...and a recognised veterinary diploma is a veterinary diploma recognised for the time being by the Council of the said Royal College as furnishing a sufficient guaranty of the possession of the requisite knowledge and skill for the efficient practice of veterinary surgery, and as entitling the holder thereof to practise veterinary surgery in the British Possession or foreign country wherein the diploma was granted.

It was the belief of the graduates of the MVC and later the University Veterinary School that their expertise and knowledge was of a sufficiently high standard to warrant their being granted status in Great Britain. However, successive attempts by Kendall, the Veterinary Board of Victoria and the University to gain affiliation with the RCVS in London were met with stonewalling and resistance.

In the manner of colonial dependency, veterinarians from Victoria were keen to ally themselves with their alma mater in London, in order to boost their own standing in the Australian community; to prove their status as a profession, fledgling though it may be; and to strengthen ties within the Empire. But their desire to do this was also bound to
a wish to uphold their own autonomy and to accommodate their skills to local conditions. Despite the fact that it was the standards of the Australian qualification that were to be the contentious issue, it appeared that the British, for their part, felt threatened by the spectre of colonial graduates coming and taking over their livelihood. That this was an unlikely threat was reinforced not only by the steady number of RCVS Members migrating to a grossly understaffed veterinary service in Australia in the latter half of the nineteenth century; but also later on by demands upon their own decimated Membership in the United Kingdom after World War I. It also turned out that those Australians who had the opportunity to stay on in Great Britain after the war were, for the most part, only too keen to return to their own country.

At the time of the first Australian approaches, from Kendall in 1896 on behalf of his MVC, the RCVS had not formally recognised any colonial or foreign school. The College had strict entrance qualifications and its members took an inflexible attitude towards affiliation with schools outside Britain. But from the colonial point of view affiliation with the RCVS would bolster the status of any colonial college quite considerably.

Under Section 13 of the 1881 British Veterinary Surgeons' Act, following recognition of a School, its graduates would be entitled without examination (after being
in practice for a certain number of years) to registration with the RCVS, albeit on a separate Colonial List. It was this provision that lay at the centre of controversy, for it was an issue that appeared threatening to the British and which without doubt affected their judgement.

In 1889 Professor William Pritchard, then President of the RCVS Council, pointed out

This, I need scarcely say is a very important question, inasmuch as soon as you recognise a school you will be compelled to admit graduates of that school... Foreign and colonial graduates may come in competition with yourselves in this country as practitioners of the veterinary art.²

The following year, Professor Thomas Walley was damning:

I think we must be extremely careful... we may be swamped with colonial practitioners who have a very imperfect education.³

Wishing to acquaint themselves with the position overseas, the RCVS called for a prospectus from various colonial and foreign schools for purposes of comparison. On examining these, the Council, to its embarrassment, discovered that Byelaw 35 of the British Act had been misinterpreted. This Byelaw provided that

A student holding a foreign or colonial veterinary diploma from any veterinary examining body recognised by the Council, should be exempt from attendance on the course of lectures for the first two years, and from the examinations at the end of those years respectively.⁴
But the words "recognised by the Council" had been overlooked, and on several occasions British schools had accepted colonial graduates (reportedly at that time from Canada) into the final session on the clear understanding that, being excused the first 2 years, at the end of the normal 3-year course the candidate would be eligible for examination by the College. Although this procedure had thus already become a fait accompli, Council members felt that the matter was a delicate one and that the practice could not be allowed to continue.

When it received Kendall's request, the RCVS Council saw that recognition would undoubtedly become an ongoing issue involving other countries as well. It therefore formed a "Committee re Colonial Schools". But there was obviously doubt about, even resistance to, the notion of affiliation and the implication of reciprocity. In January 1897 the Committee reported that "the standard (of the MVC) generally was not up to that of the Royal College".

In 1898 the Veterinary Board of Victoria took up the cause on Kendall's behalf. On 1st August it sent a petition to the RCVS, enclosing copies of the Victorian Act, Regulations of the Board, the 1898 Veterinary List of Victoria, and the Prospectus of the MVC. This time the request was "that the graduates of the Melbourne Veterinary College after having obtained the diploma granted by the
Veterinary Board of Victoria may be allowed to be examined by the RCVS, with the object of obtaining the diploma of the RCVS".  It should be noted that the Board was thus not requesting automatic registration, but merely the opportunity for Victorian graduates to gain it by proving their standards of knowledge and proficiency by examination. The Examination Committee set up by the Council of the RCVS admitted that the Victorian curriculum and professional examination appeared to correspond with their own; but they found themselves a loophole - an examination in general knowledge was not compulsory, and this was a "fatal objection". A letter from the RCVS dated May 3 1899 pointed out the "fatal objection" and also that

the course suggested by the Veterinary Board for an additional examination by this College could not be legally enforced, and that this College has no power or right to require a colonial practitioner to pass any test, his right to registration depending on the value of the diploma obtained from the colonial authority.

Although the members of the Victorian Board could read the report in the Veterinary Record, the Council did not have the courtesy to mention in its letter that they considered the MVC curriculum satisfactory. Kendall himself recalled that

the reply was that the only bar to this recognition was the absence of a matriculation examination, which had been provided for in the Veterinary Surgeons Act of Victoria."
In 1901 W.T. Kendall's eldest son, Ernest, was in London on leave from the war in South Africa, and he took the opportunity to attend (and pass) a course at the Sanitary Institute, where he received every encouragement to apply for registration with the RCVS. His visit to the President of the College, Mr. J.F. Simpson, was most cordial and Simpson promised to give the matter his full consideration, stating that affiliation between the Colleges in London and Melbourne could not be refused if "everything was made equal". After calling at the Victorian Agent General's office a month later, Kendall decided not to send a personal request, but to apply through official channels. Despite the acknowledgment in 1899 that the Victorian course appeared acceptable, on receiving this application from the Victorian Agent General in 1902, certain Members of the Committee reporting to the RCVS Council now again attacked the Victorian standards:

Mulvey: The syllabuses were considered at subsequent meetings and not one of them was found to come up to the standard as laid down by this College, and for that reason it was found impossible to recognise them...
Thatcher (solicitor): A fresh curriculum was submitted which I brought before a sub-committee, pointing out where I considered that the curriculum did not meet the requirements of the College. They altered their curriculum very considerably, but it still did not reach our standard...
Mcfadyean: I do not think it at all
follows that because the Colonial colleges have a four years curriculum we are going to grant them the diploma of membership of this College on terms that are in any way different from the ordinary. 14

Mr. J.A.W. Dollar tried to smooth things over by explaining that he had been in correspondence with W.T. Kendall, that it was manifest to him that it was not the desire of the Australians to evade any obligations, and that if we will give them to understand what we want they will make every effort to comply... It is very easy for any person resident in England to know exactly what the subjects are... but the Australian College really wish to know what our examination is, so that they may be in a position to conform to it. 15

Despite Dollar's efforts, however, the application was refused.

Two years later, Simpson raised the matter again in his election address, defending the RCVS stance by attacking the colonials, asking why it was that without exception they appointed British graduates to all their important positions. This was too much. Using the pseudonym "GVMC", one reply in the Veterinary Record stated that in Australasia this was not the case and that in each State there were graduates of the MVC holding important positions; and he noted pointedly that "the Imperial Government was glad to have the services of colonial veterinary surgeons during the South African war". 16 He also reiterated that Simpson "knows very well, or ought to
know" that the MVC curriculum and the subjects for examination were identical to those of the London College.

This was the last direct appeal made on behalf of the MVC, for the next application was made in 1909 on behalf of the University of Melbourne. In anticipation of this, but pointing out that it was likely that distance would preclude a rush on positions in Britain, the Editor of the British journal *Veterinary Record* (William Hunting) suggested

No colonial schools are yet recognised by the RCVS, but this new one may very probably reach our standard at once ... It would tend to the unity of the profession if every department of the Empire large enough to require a veterinary college were to possess one recognised by the RCVS as equal to those in Great Britain."

However it was still not to be.

Although the question of recognition was still not resolved, there was a second aspect to the question that distressed the Australians. This was the use of a "colonial list". Registration as a practitioner could be available to any Veterinary Science graduate from the University of Melbourne by being put on a separate Colonial list once the training and qualification issued by the Department was recognised by the RCVS. However, this was still in no way an acknowledgment by the British that the Victorian qualification was on a par with their own. The British resistance to admitting that the Melbourne
qualification was adequate can only be attributed to their own self-interest. The Australians interpreted it as still implying that the Victorian practitioner was different and unworthy of British Membership, however much the College insisted that the Colonial list signified a "footing of absolute equality with ordinary members of the College".\textsuperscript{18} It was incomprehensible to the Australians that the College should resist recognition of their qualification so strongly, particularly as it was now a formally recognised University degree. The new excuse of the RCVS, that the standard requested by the University might drop or the curriculum become shorter,\textsuperscript{19} could have been safeguarded against; the same safeguards were surely no less necessary for the different colleges in Great Britain and Ireland. From the start, the Victorian bodies had offered to send any information that the College might require, and had been willing to consider any requests that might be made of them regarding teaching and assessment. In 1910 it was clear that several members of the RCVS Council gave sympathetic support at least towards a serious consideration of the Victorian application. W.F. Barrett proposed that the Council draw up conditions for Melbourne to consider, and "that efforts be made to bring about an agreement",\textsuperscript{20} and he was seconded by William Owen Williams, Dean of the new College at Liverpool. Sir John Mcfadyean, on the other hand, was inclined to push the
whole question into the recesses of Council business, suggesting that the Melbourne University Degree Committee should cease to exist - to which there were cries of "No, no". Although Barrett's suggestion was "negatived", there were indications of some degree of backing.

By 1916, support for the colonials was more extensive. In the 16 July edition of the Veterinary Record, the editorial was entirely devoted to the question, and this time the appeal for recognition of the Melbourne qualification was made in the spirit of Imperial unity. Suggesting that the RCVS Council still had insufficient details of the University of Melbourne course, the Editor admitted that it could even be that Melbourne's standards were superior to the British ones.

Referring to the letter in that issue from Harold Woodruff, Professor of Veterinary Science at the University of Melbourne, he pointed out that other degrees from Melbourne University were held in high esteem, and that its medical qualification had been recognised by the British General Medical Council as early as May 1890.

In the veterinary case,

Colonial graduates, debarred from so many important veterinary positions in the Empire, have special professional reasons for desiring recognition; but there are other reasons which should make us anxious to recognise them as soon as we justifiably can. The policy of Imperial unity, which Englishmen are now only beginning to learn, demands that we should treat all such applications from Colonial schools in no narrow or carping spirit.
Unfortunately, the RCVS Council did not take this advice to heart.

In 1910-11 the Council had thrown out Woodruff's first application on the ground that the system of appointing internal examiners was not acceptable to them, even though there was nothing in the Regulations to forbid it. Indeed, the University did let their teaching staff set and mark examinations - it was, as Woodruff pointed out, a common enough occurrence at universities. Incredibly, given the very limited population from which to choose examiners, this had not been the case at the MVC, where the Board had gone to considerable lengths to appoint examiners of high standing and repute who were not staff members.

Woodruff in 1916 provided a detailed explanation of the Victorian examination system, knowing that it had been cited as the main stumbling block five years earlier; but he also declared pointedly that the Members of the RCVS Council were "too much concerned about examinations and too little concerned about sound education". Woodruff also drew attention to the anomaly that students taking out higher degrees conducted by the RCVS Council were frequently examined by members of the London College's teaching staff. He noted that the RCVS had reverted to appointing only one examiner in each subject, and consequently allowed the teacher of that subject to express an opinion of the marking. He included a full list
of his teaching staff, together with their qualifications. He also sent to the Veterinary Record a very full statement of the syllabus and methods of teaching employed in his Department, together with some examples of examination questions, making regular comparisons with the regulations set down by the RCVS. Woodruff had written to the Council of the RCVS as well offering, together with two of his graduates, to meet the Committee that had been formed to consider the University of Melbourne application. This was possible as all three were serving overseas with the Australian Army Veterinary Corps (AAVC). The offer was rejected.

The terms on which the Melbourne University Special Committee recommended that the Council turn down Woodruff's 1916 application were much as before. The President (F.W. Garnet) was as rigid and prejudiced as his predecessors:

if we were to allow this to go through this Council, this request to be acceded to, we could not with justice give an equal authority to each school which is certainly at a minimum as well or better equipped than the Melbourne School of Veterinary Science in the University of Melbourne, to grant degrees which would carry with them at the same time the licence to practice in the United Kingdom. I do not think any one of us can contemplate such a condition taking place.

And this at a time when the number of veterinarians in Britain needed building up after the losses inflicted by
the war! Mcfadyean wished to establish whether the vote was
unanimous. There were two unnamed dissenters; however
there were others who sympathised through the pages of the
Veterinary Record too, the Editor amongst them. He
reiterated his belief that the Council had turned down the
application because they "did not choose to take the
trouble" to inquire further,\(^{32}\) letting their objections
again rest solely on the University of Melbourne methods of
examination, instead of making the effort to effect a broad
and "comprehensive investigation". Several letters
attacked the Council's attitude and G. Mayall wrote "surely
it is the time now, if ever there was a time, to think
imperially, and not insularly and parochially".\(^{33}\)

As a last resort, having been forbidden Membership as
a Colonial practitioner, H.R. Seddon appealed to the Privy
Council.\(^{34}\) To his countrymen's intense disappointment,
his application was turned down and a disillusioned
Woodruff finally gave up, recommending to his graduates
that there was no point in making any further attempt to
gain their Membership.\(^{35}\)

One of the issues that Woodruff had raised in his
application was the fact that in making veterinary
appointments in the British Dependencies and Crown
Colonies, the Colonial Office must appoint a member of the
RCVS. Also he quoted the regulations which stated that
every candidate qualifying for a commission in the Army
Veterinary Corps (AVC) must be a member of the RCVS. Of necessity, this was eventually rescinded during World War I; but despite the President's assurance to Council that there was "no truth whatever" in Woodruff's allegation about appointments made by the Colonial Office, he failed to point out that the granting of commissions in the AVC to colonial graduates was only a temporary measure and brought about by the demand and expediency of a wartime situation, or that the Army would no doubt revert to its original admission criteria soon after the end of hostilities.

After the Armistice, as part of an Australian Imperial Force (AIF) scheme to grant leave for educational purposes, all men of the AAVC were encouraged to apply for courses in the United Kingdom whilst they awaited repatriation. A course in Veterinary Science was proposed at the Dick College in Edinburgh for ten NCO's and men from each Australian Division. However it was quickly pointed out by the Deputy Director of Veterinary Services (AIF) in London, Lt.Col. E.A. Kendall, that although the idea seemed excellent, it might do more harm than good, as any certificate issued for such an elementary and brief course could well be quoted in an improper way on their return to Australia, especially in those States which were not covered by legislation against imposters. The Director General (AIF), Lt. General Sir John Monash, disapproved of the proposal on the grounds that the
expenditure was not justified, and the plan was scrapped. A short course on "Animal Husbandry" was substituted in its place.

For the veterinary graduates, and as a temporary measure only, veterinarians who had been on military service were allowed to spend some time at either the London College or those at Edinburgh and Liverpool. By this interim agreement, after two terms in the case of Melbourne University graduates and three terms for a graduate of the MVC, and after examination, members of the armed forces could then take out their MRCVS.38 Woodruff perceived this as a compromise step and an indignity. His recommendation that those involved should not sit for the examination under any circumstances until the RCVS gave reciprocal recognition of the University of Melbourne degree appears to have been greeted with some dismay by these men. Kendall reported that the AAVC officers were willing to try to gain their MRCVS diploma under these conditions, even though they were temporary; and it was his opinion that the College had made a quite considerable concession considering their previous stand, and had provided an opportunity that should not be missed. He felt that Victoria would be in no danger of risking a poor showing for "we would be represented by the best class of men graduating in Australia".39 In a report that Kendall contributed on behalf of the
Indeed the opinion has been expressed to me by a responsible officer of the College that it was hoped that this first step would lead to a 'rapprochement' between that institution and the Australian Schools. Needless to say, this would be a most desirable result to obtain...

However Woodruff was adamant. He had gone to great lengths in his attempts to secure recognition for his graduates. He had provided detailed information on the Melbourne course, answering criticism and giving further elucidation whenever requested or warranted. His had been a dogged pursuit, coupled with a willingness to cooperate in any inquiry, however spurious the accusation; and his disappointment at the outcome must have been intense, despite the fact that it was probably not unexpected. The British clearly had little intention of giving any ground, even though their own Veterinary Surgeons Act had allowed them this opportunity. Indeed, the ending to Woodruff's reply on receiving the Council's verdict epitomises the feelings of helpless disillusionment that the Australians must all have felt:

the time for argument at the bar of the Royal College of Veterinary Surgeons is over. One had hoped that the Council of 1916 would have had some glimpses of a grander vision than that of mere custodians of the much blessed one-portal. The conception might have occurred to its Council that this
ancient College with its alumni in all parts of the Empire should be the alma mater of other schools of the Dominions - not slavish copies, but free, adult, autonomous, like the peoples among whom they have grown up, and yet like them proud of the relationship, and striving earnestly for the approbation and sympathy of the parent institution. Instead of this the Council appear to have the firm intention to maintain another attitude - circumscribed, unsympathetic, and monopolistic...  

Postscript

Recognition was a long time in coming. In 1936 a recommendation was made by the Veterinary Association of Tasmania that instead of the alternative of Australia taking retaliatory action, a united "intra-Empire" recognition of all veterinary qualifications should be aimed for, in the hope that such an understanding would facilitate an interchange of graduates and create opportunities for postgraduate work throughout the Empire countries. However, the whole issue of the failure to recognise Australian degrees by the RCVS still rankled. Members could not resist pointing out that

the argument advanced by Mr. Bullock to the effect that the DVSM is designed to test local knowledge could be advanced as a very good reason why English graduates were unfitted to practise under Australian conditions.  

The issue of recognition was again taken up seriously after the cessation of World War II. In 1948 the General Secretary of the National Veterinary Medical Association of
Great Britain was quoted as saying that the Council of the RCVS was "anxious to develop some greater reciprocity between the various countries of the Commonwealth". In November of that year the Registrar wrote to the AVA to inform it that graduates of Sydney and Melbourne (followed six months later by Queensland) were at last eligible to have their names on the Colonial Register of Veterinary Surgeons, without being subjected to any test or examination. At the same time he assured the Association that there was no intention of being derogatory of the Commonwealth of Australia in using the term 'Colonial Register', but that at that time, this was still necessary under the 1881 Act, though the RCVS would make every effort to have it renamed. At the present time there are three lists maintained - British, Commonwealth and Foreign - although with Britain's membership of the European Common Market, this will very likely have to be revised.
References

2. Vet.Rec. 2, 1889, 6. RCVS Council Minutes were taken in shorthand and reproduced in full in the Veterinary Record (first published in 1828 by William Percivall, who was joined by William Youatt) for these years, and they were also recorded in part in the Veterinary Journal (founded by Fleming in 1875).
4. British Veterinary Surgeons Act, 1881, Byelaw 35. The Act has 20 sections. An Act gives a specific institution, in this case the RCVS, the right to make their own byelaws (i.e. regulations) which have the force of law, but one subject to that Act. These byelaws do have a secondary status and therefore can be challenged - in this case the Act gave a particular opportunity for appealing to the Privy Council [Sect.15(3)]. This bylaw added a further dimension to the requisite criteria for membership, thus further enhancing a 'closed shop' approach by the British.
5. Consisting of the President (J.F. Simpson), the Principal of the London School (John McFadyean), the Principal of one of the Scottish Schools, Veterinary-Captain Butler, Messrs. Dollar and Mulvey and Professor Edgar.
6. Vet.Rec. 9, 1897, 393.
7. Letter dated 1 August 1898 from H. Christopher, Registrar, Papers of the Veterinary Board of Victoria, Melbourne.
9. Letter from the RCVS to the Veterinary Board of Victoria dated 3.5.1899.
11. The Sanitary Institute of Great Britain was awarded the Royal Charter in 1904 and renamed the Royal Society for the Promotion of Health in 1955.
12. Personal diary of E.A. Kendall, entry dated 13.11.01, personal correspondence file 419.98.24, Australian War Memorial (AWM).
13. Idem, 2.12.01.
15. Ibid.
22. William Hunting died in October 1913. His sub-editor was W.H. Brown, proprietor of their publishers H. & W. Brown. On Hunting's death Brown purchased the goodwill of the journal and continued its publication until
1920, when it was transferred to the National Veterinary Medical Association. Pattison, op.cit., 1985, 145. Brown was thus responsible for this editorial.


25. In a letter to the Veterinary Record Garnet termed this "the most pernicious system of examination in existence"; Vet.Rec. XXIX, 1916, 192.

26. The first Board of Examiners consisted of Dunbar Tweeddale – Staff Surgeon, H.M. Navy; Cosmo Newbery – Industrial and Technological Museum; Messrs. Sharp, Marson, Snowball & Rivett – MsRCVS and Members of the Veterinary Board of Victoria; and Joseph Cohn – MRCVS (Copenhagen). On later occasions they coopted such men as Baron von Mueller, Dr. D.A. Gresswell from the Public Health Department, Professor Cherry, Dr. J.W. Springthorpe.


28. These were appointed by the Veterinary Board. Vet.Rec. XXIX, 1916, 48.

29. Vet.Rec. XXIX, 1916, 107-109, 116-120. From these it would appear that the Melbourne course included considerably more laboratory work, and they also set both written and practical examinations, whereas the RCVS were merely written and viva voce. Also in several cases the RCVS combined subjects – such as physiology and histology – which Melbourne taught separately; the RCVS syllabus makes no mention of parasitology or Sanitary Science. See chapter also on Veterinary Science.

30. H. Albiston confirms that even when several of the graduates, himself included, were doing short courses at the London College following the Armistice before returning to Australia, no attempt was made to interview them – personal communication, 1987.


32. Ibid, 175.

33. Ibid, 192.

34. H.R. Seddon came to Melbourne with Professor Gilruth, and was one of their brightest students. He became the first Director of the Glenfield Veterinary Research Station, New South Wales and on leaving there in 1936 was appointed the Foundation Professor of Veterinary Science at Yeerongpilly, Brisbane.


38. There were 15 Victorians who went to the London College to do refresher courses, but of these it appears from
the Minutes of the RCVS Council that only J. Legg, R. Clark, D.A.C. McNicol and S.H. Whitworth B.V.Sc. from Melbourne, and C.N. Callow GMVC applied for permission to sit the Final Examination for the diploma of MRCVS. Major Heslop, who had previous leave owing in England, managed to complete a postgraduate course to obtain a D.V.H. at Liverpool (Vet.Rec. XXXII, 1919, 24-25). McNicol and Callow gained their MRCVS in 1919 and 1920 respectively, thus presumably disregarding Woodruff's recommendation.

40. Kendall, AWM 3 DRL 6941(6).
42. Aust.Vet.J., XII(4), 1936, 161. Mr. Fred Bullock was Registrar of the RCVS.
CHAPTER 6. SCIENCE: ANIMAL DISEASE

The University of Melbourne Appointments Board in its "Careers for Graduates" lists Veterinary Science as

the study of the health of animals, the prevention of ill-health and the treatment of sick animals. In addition the veterinary profession is concerned with the fitness of meat, milk and other products for human consumption to protect the community from diseases of animal origin.¹

The intention in this section is to indicate how the veterinarian moved from considering merely the care and cure of the sick animal, to the adoption of those other attributes. In doing so, it is necessary to present a brief history of contemporary theories of disease in the nineteenth century. A description will then be given of the most serious outbreaks of livestock disease in Australia and of how each of these was dealt with. An indication will be given of how the approach to animal health moved increasingly towards the diagnosis and prevention of animal disease; and of how a knowledge of comparative medicine and the intertransmissibility of certain diseases between man and animal became necessary for public health. There was, in effect, a scientization of the veterinary art.

6.1 Theory of Disease

Both the contagion and miasmatic theories of the transmission of disease and the notion of 'spontaneous
generation' were still popular in the first half of the nineteenth century. The measures adopted to allay the spread of contagious diseases were typically characterised by the implementation of quarantine measures. For centuries and world-wide, lepers, for example, were separated from the general population, while whole villages were isolated during outbreaks of plague. An extension of the cordons against bubonic plague in Europe in the eighteenth century had been a cordon which controlled trade at the time of cattle plague, and these were kept on long after the demise of those against epidemics of disease in humans. Miasmatists believed that disease was spread by means of the contamination of the atmosphere, particularly by decaying matter and unsanitary conditions. It followed from this that infectious diseases arose spontaneously out of these polluted conditions. This idea was entirely opposed to the germ theory which highlighted the action of specific infectious particles in causing a specific disease. Through the work of Pasteur and Koch, in particular, in recognising that disease was transmissible by anaerobic organisms, the germ theory of disease became generally accepted by the close of the nineteenth century. This coincided with an increase in public awareness of the transmissibility of animal and human diseases, and an acceptance of the importance of comparative medicine (that is, of an understanding of those
aspects of medicine that by similarity between both human and animal, and between different species, can be applied to a wider knowledge of medicine generally), focussing particularly on prevention.

After centuries of recurrent belief in contagionism, in the mid-nineteenth century there was a good deal of questioning as to why this did not seem to provide the perfect antidote to the spread of disease. Indeed by the 1840's there was a strong following for anti-contagionism and again a close interest in the miasma. This had been fired by the popularity of the public health movement, which concentrated on sanitary reform. Filth, it was said, was responsible for disease. The anti-contagionists worked hard for the abolition or relaxation of quarantine laws. E.H. Ackerknecht links this shift in belief to powerful social and political factors, for the imposition of quarantines served to alienate the new class of industrialists and tradesmen by limiting their own power and profit. He also believes that anti-contagionism was "motivated by the new critical scientific spirit of their time", questioning old beliefs and seeking rational explanations.

A disastrous situation ensued after the relaxation of the Quarantine Acts in England firstly in 1825, and again in 1831 and 1841, and this was exacerbated by the new free trade laws in the 1840's, when British ports were opened to
importation of foreign stock and thus to the easy introduction of disease. This meant that there was a total disregard of any quarantine regimes in England at the time of outbreaks of cattle plague in Europe.\(^5\) Despite warnings in the early 1860's from John Gamgee\(^6\) — who campaigned against the dangers of contagious diseases spreading from the Continent — and from European contemporaries, the veterinary establishment in England still insisted that cattle plague (or rinderpest) was no threat to the British Isles. Even if the majority of the profession had been behind Gamgee and had believed that quarantine measures were essential,

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their prestige and status were so low as to make it impossible to combat the contemporary popular beliefs in the spontaneous, miasmic or simply inexplicable origins of infectious diseases, even had they wished to.\(^7\)
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Eventually, after the cattle plague of 1865-67 had exacted a dreadful financial and agricultural loss, England was forced to recognise the wisdom of Gamgee's campaign for the control of contagious diseases of stock, whilst the adoption of his program of slaughter and immunisation was to prove remarkably successful in Australia in the twentieth century.\(^8\) His argument that Britain should have been in an impregnable position regarding the importation of disease, in that she alone was surrounded by a natural barrier, the sea,\(^9\) was very relevant to the
Australian situation. Fortunately for Australia, this was recognised early enough and the relative freedom from enzootic diseases that the country enjoyed was owed, in large part, to the strict importation and quarantine regulations that were insisted upon by its veterinarians from the late nineteenth century onwards.

C.-E.A. Winslow suggests that the layman "perceived the broad truth of contagion", but "the physician knew that such a theory was clearly inadequate". He insists that the resistance of the medical profession to the doctrine of contagion could not be dismissed as merely evidence of hidebound conservatism. It was a questioning of the limited measures of success that such beliefs had evoked, and a search for missing links. Certainly in Melbourne in the 1870's general medical opinion was still "non-contagionist".

Whereas general medical and political opinion had moved from the contagionist viewpoint (characterised by the abolition of quarantine laws, and the fight for sanitary reform), the veterinary profession had wavered. At one time in the 1840's and 1850's the veterinary establishment in England had sided with public opinion, and Gamgee's warning had been merely a voice in the wilderness. His insistence on the need for the enforcement of quarantine laws, however, had been justified in the event. Similarly, the need for quarantine had been ignored at the
first in Australia, but eventually the wisdom of Gamgee's warnings and the urgent need for quarantine regulations were recognised. In this respect, the veterinarians showed a virtually united front against the anti-contagionist views espoused by the medical profession.

6.2 Comparative Medicine

Because of the important link between animal disease and public health, mention should be made of the growing interest in, and acknowledgment of, the intertransmissibility of disease between animal and man.¹² L. Wilkinson has written of the history of this concept,¹³ and points out that it was not until the late eighteenth century that any official recognition of this possibility was mooted by the medical and veterinary fraternities. Medical observation was firstly centred on anthrax, glanders and rabies, and in several cases infection from animal to man, and vice versa, was demonstrated by inoculation or introduction of infected material. In the closing years of the eighteenth century Edward Jenner conducted his experiments on inoculation with cowpox. In 1862 Pierre-Francois-Olive Rayer, having already founded a journal devoted to comparative medicine, was appointed the first Professor of Comparative Medicine and Experimental Pathology in Paris. His work, together with that of his junior, Casimir Davaine, and his fellow Frenchman, Jean-Baptiste-Auguste Chauveau, had inspired Pasteur's work
on anthrax.

By the end of the nineteenth century there was a noticeable emphasis on comparative medicine. In Britain, Mcfadyean founded the Journal of Comparative Pathology and Therapeutics in 1888,\textsuperscript{14} while in Australia, Kendall was instrumental in the formation of a Comparative Pathological Society in 1890. By this time transmission of disease from animal to man had become recognised as a necessary area of inquiry in the domain of public health.

6.3 Incidence of animal disease in Victoria

In the early years of British settlement in Australia, the animals that had been imported kept remarkably free from infectious diseases, and this remained so into the first half of the nineteenth century. This was indeed fortunate considering the casual attitude towards quarantine and import controls during those years. This freedom from disease has been attributed to the fact that the voyages were so long that if by any chance any beast became sickly, it would be likely to die on the trip and be thrown overboard. It appeared to be a case of the survival of the fittest; those animals that landed with the first settlers, having overcome the extreme arduousness of the journey, no doubt owed their survival to their freedom from disease on embarkation in the Mother Country.\textsuperscript{15}

An interesting explanation of this is also given by E.L. French\textsuperscript{16} who suggests that Australia was afforded
some measure of protection by "the absence of indigenous fauna in which introduced diseases could become established or from which local diseases could affect the introduced stock". J.R. Fisher adds a corollary to this in that animal disease was also a by-product of what he termed an "ecological disaster in nineteenth century Australia". Although the damage inflicted on the Australian countryside by both humans and stock was, and is still, extensive, he feels that ecological conditions in Australia may have offered some sort of barrier to the spread of disease. These aspects would certainly have accentuated the apparent ease with which good animal health was maintained, enabling the country to develop a strong pastoral economy. At the same time, they lessened the perceived need, by government and population alike, for veterinary care and research.

The first listed livestock to arrive in Victoria, 10 cattle and 100 sheep, arrived at Portland from Launceston with Henty in November 1834, to be followed eleven months later by 50 Herefords that were landed at Port Gellibrand (now known as Williamstown). By 1837 there were over 2,500 head of cattle and 100,000 by 1842. In the meantime some settlers had brought in sheep with them as they were much easier to transport than cattle. By 1836 there were 26,500 recorded grazing sheep, and this had expanded to a million and a half by 1842.
Sheep had a much lower monetary value than cattle, and in the nineteenth century were used almost exclusively for wool production. It seems to be generally assumed that the first livestock were, on arrival, immune to serious disease, and that in the following decades they were able to adapt to local conditions, still remaining healthy. However, this could lead to deleterious effects. As Kendall pointed out, unimpeded access to virgin territory at first led to such an increase in stock numbers that there was an over-supply, while a consequent depreciation in value resulted in a neglect in husbandry which ultimately lowered resistance to disease.

In fact, in the first half century of settlement in Australia, with the possible exception of highly bred horses, stock losses were generally considered inevitable and even unavoidable. Consequently, faced with a public attitude of resignation and unwillingness to make any economic sacrifice for stock, it is not altogether surprising that so little action was taken against animal disease in these years. Fifty years later, the first Victorian Chief Inspector of Stock, Edward Curr, drew the attention of the Minister of Agriculture (J.L. Dow) to this phenomenon:

...one is led to ask whether it is that stock is not sufficiently valuable to warrant the outlay which the advice of veterinarians would lead to, or that the energy or capital necessary to cope with disease is wanting in the small stock-
owner, for it is this class which suffers most from disease.\textsuperscript{22}

6.3.1. The first recorded outbreak of disease in Australia was of scab in sheep, it being reported in 1830 that "scab and footrot are common among sheep throughout the country".\textsuperscript{23} The first attempt to legislate for control of these outbreaks was defeated in the New South Wales Legislative Council in 1831 due to opposition from some of the pastoralists.\textsuperscript{24} However, a year later, in 1832, the Scab Act provided heavy penalties as a means of controlling spread of the disease, by preventing the movement of infected sheep. The inspectors employed to trace outbreaks were men who themselves had suffered from epidemics in their own flocks. A combination of strict examination and the discovery of the value of a lime and sulphur dip completely eradicated the disease long before it was eliminated in England.\textsuperscript{25} Pullar\textsuperscript{26} points out

sheep scab was directly responsible for the first Australian laws to (a) limit the spread of a disease of animals; (b) control the movement of apparently healthy contacts; (c) create a system of compulsory inspection; (d) quarantine infected properties and districts; (e) accredit specific disease free properties and districts; and (f) conduct eradication on a national scale.

In 1834, whilst sheep scab was still prevalent, flocks were subject to what was termed malignant catarrh or influenza. The disease incurred heavy losses, but
apparently decreased and died out over the next thirty years. The 1838 Act dealing with this disease again aimed to prevent movement of infectious animals, under threat of heavy penalties. Alarm was so great that some pastoralists went to considerable lengths to find out if the disease was as highly contagious as they feared. The evidence that came before the Committee on Catarrh in Sheep (formed prior to the Act) pointed strongly to a widespread belief that this disease, like Sheep Scab, was indeed contagious. It is significant that at this time in England the quarantine legislation was being relaxed and the anti-contagionist viewpoint was still popular.

At this stage none of the Colonies had made full-time veterinary appointments, but a panel of veterinarians could be called upon as needed. Yet when these men were called upon, their advice was frequently ignored by the government of the day. As yet they were merely a collection of individuals without influence in official or political circles.

6.3.2. The first and most serious onset of stock disease in Victoria occurred in 1858 when pleuropneumonia was diagnosed at Darebin, near Melbourne. The incident has been reported in some detail by Seddon and Pullar, who describe how the disease spread from a single beast which had been imported from Cumberland, England. This heifer was said to have been cured from a
previous attack, but had a relapse and died six weeks after
landing in October 1858, having in the meantime infected
others of the herd belonging to a farmer named Boadle.
Boadle sought the advice of Mr. Alexander Brock\textsuperscript{31} who
diagnosed pleuropneumonia, and this was confirmed by
Henry Wragge MRCVS (later President of the 1st Veterinary
Board of Victoria) who recommended immediate destruction of
the whole herd. Unfortunately, this advice was not acted on
at once, and despite Boadle’s warning his neighbours, other
losses were reported. In September 1859, a committee was
formed from local concerned stockowners, and they sought
advice from another veterinarian, John Miscamble. He
reconfirmed the findings of pleuropneumonia amongst
Boadle’s stock, and was supported by both Robert Gibton and
John Pottie. An appeal was organised through the
Melbourne "Argus"\textsuperscript{32} to compensate Boadle and at last his
farm was quarantined and his cattle destroyed. But it was
too late to stop a disaster. Within two years the disease
had already spread into New South Wales, where an outbreak
was reported near Albury in April 1861, and within the
first twelve years after the introduction of the disease,
Australia was faced with an annual loss of 125,000 head of
cattle.\textsuperscript{33}

From our point of view here, there are two important
aspects to this episode. Firstly, at this time there were
no import and quarantine restrictions on imported stock;
and secondly, despite expert veterinary advice being sought, this was initially disregarded.34

In 1863 a Royal Commission was appointed to investigate the disease. Up till this time, general opinion seemed to be that the disease was not contagious. This initially seemed to be borne out by healthy animals brought over from Tasmania for experimental research, it being reported that not one developed any symptoms after a year's investigation. However, no sooner had the report been submitted than the cattle began to die of pleuropneumonia and the butchers who had bought the remaining animals for slaughter found that they too were so diseased that they demanded a refund.35 The Government even sponsored a competition for an essay on the disease and awarded the prize to a Dr. D. Wemyss Jobson, who justified the Government's action and supported the Commission's view that the disease was not contagious, despite his subsequently admitting that he had never seen a case of pleuropneumonia.36

The authorities were forced to admit that their early attempts to prevent the spread of the disease had been useless. Destruction of Boadle's herd was undertaken too late because the veterinarian's advice had not been taken immediately; later, both destruction of stock and the imposition of quarantine restrictions were inadequate because it was virtually impossible to control stock
movement and also because at that time there was no means of distinguishing the carriers of the disease.\textsuperscript{37} It was now necessary to consider new preventive measures.

6.3.3. The only Australian outbreaks of foot and mouth disease occurred in 1871-1872, one in Victoria and four in New South Wales. These coincided with a time when the incidence of the disease was particularly high in the United Kingdom and it was also known to be prevalent in India, Australia's other major source of cattle and horses. Of six bulls that arrived in Melbourne in February 1872, one developed signs of the disease three months later. In the meantime the animal had been inspected, exhibited (with some success), sold and travelled some distance, frequently mixing with other beasts. The entire episode is documented in great detail by Pullar.\textsuperscript{38} It is clear that there was then a general awareness of the seriousness of the situation and vigorous steps were taken to stamp out the disease as soon as a veterinarian, Graham Mitchell, had diagnosed it. Not immediately identifying the malady as serious, the owner of the bull did not call upon Mitchell for nearly a month, by which time cattle and pigs belonging to a tenant farmer and a neighbour also showed signs of the disease. Having diagnosed foot and mouth disease, Mitchell was forced to announce his fears through the public press as at that time there was no other mechanism of informing the authorities;
but despite a state of some disarray because of a change of Government, a mechanism for official inspection was immediately set up. Mitchell's findings were confirmed by other veterinarians and upon their recommendations, all infected and contacted stock were destroyed, in June.

At the behest of both veterinarians and stockowners, a Foot and Mouth Disease Commission was thereupon set up. The First Stock Diseases Act of July 1872 recommended quarantine measures for imported cattle for not less than six months, and if any incidence of the disease occurred during the voyage or on arrival, all beasts, fodder, fittings, clothing and appurtenances were to be destroyed. This was made retrospective to the date of the slaughter of the stock the previous month. The Act also instituted the position of a Chief Inspector of Stock. Less than six months later a Second Stock Diseases Act made even more precise and extensive recommendations for the inspection and quarantine of imported cattle.

In the years between these outbreaks of pleuropneumonia and foot and mouth disease, a hard lesson had been learned and the credibility of the veterinary profession had been greatly enhanced. Although "germ" theory was still a controversial explanation of disease, veterinarians were aware of its implications, and in the main, supportive. After the foot and mouth episode, an increased interest in, and awareness of, the ramifications of animal disease by
the stockowners and an informed public led to the first
demands in the press for a veterinary educational
institution and research facilities in Victoria.\textsuperscript{41}

There are documented cases of anthrax, rabies,
glanders, surra and even rinderpest having been introduced
into Australia during these years, but prompt action by
governments acting on veterinary advice succeeded in
preventing any spread of the diseases that did become
established. Attention also had to be directed to the
prevention of the most devastating of the diseases such as
pleuropneumonia, tick fever, black disease, contagious
abortion and sheep blowfly.

6.4 Prevention

In 1546 the scholarly Fracastorius, physician and
philosopher, published his work on \textit{Contagion} in which he
questioned the nature of infection, and why some diseases
appear contagious, whilst others do not. He came to the
conclusion that living particles, or 'germs' were the cause
of infection. At the end of the following century van
Leeuwenhoek examined microscopic germs, or 'animalcules of
divers sorts' from his own mouth, and thus discovered
bacteria, but did not link them to the cause of
disease.\textsuperscript{42} These were the precursors of what was
accepted as the 'germ' theory, although it was three
centuries after Fracatorius before Pasteur's research led
to a general acceptance of the transmissibility of disease.
The clue to the recognition and success of Pasteur's work lay in his rigorous approach to laboratory research. His early work on fermentation and proof of the improbability of spontaneous generation was by no means a novel investigation, yet by painstakingly building on and extending the work of others it produced the experimental reliability and validity that his predecessors had failed to supply. After successful research on the disease of silkworms, he turned to the investigation of anthrax and chicken cholera, through which he was to discover not only that infectious diseases were caused by specific bacteria, but that inoculation with a weakened version of those bacteria could provide resistance to the same disease. In an experiment with farm animals he injected two groups with a highly toxic dose of anthrax bacteria, and proved that the group which had previously received an inoculation of anthrax vaccine survived, whereas the untreated control group all died. In July 1885 he was able to apply these findings to save the life of a young boy who had been bitten by a rabid dog. At the same time, Robert Koch was doing work on the tubercle bacillus, and in 1882 presented a paper demonstrating, amongst other things, that it was possible to cultivate this microorganism in pure culture and that this particular species or organism could then produce tuberculosis in a healthy animal through inoculation. "Between them [Pasteur and Koch] had ushered
in the Golden Age of Bacteriology and .... the parasitic theory of communicable disease". The way was now open for definitive research into the prevention of disease.

In Australia there is evidence that in the mid-nineteenth century there were some men with definite views on this matter. In 1861 the report of the Pleuropneumonia Royal Commission was a remarkably detailed document which classified pleuropneumonia as "infecto-contagious" and a disease "caused by the introduction of minute foreign matter into living bodies". Furthermore, it stated specifically that the disease

is communicated by vitiated saliva of the mouth, by gangrenous matter proceeding from ruptured abscesses of the lungs, by gaseous expirations from diseased air cells... or by poisonous effluvia issuing from bodies labouring under fatal morbific disorders.44

In 1888, on the advice of two veterinarians in Government Service, Anthony Willows and Edward Stanley, Pasteur was invited by the Government of New South Wales to demonstrate his anthrax vaccine in Australia, and he sent two representatives (Dr. D. Germont and M. Adrien Loir) to carry out experiments at Junee.45

6.4.1. Anthrax, or Cumberland Disease as it was known in Australia, had been prevalent in the Colony and consequently the demonstration of the use of vaccine created widespread interest. The Chief Inspectors of Stock for Victoria, Queensland and Tasmania
and the Government Veterinarians for Victoria and Tasmania (amongst them Mitchell and Kendall) were invited to be present, as well as 'a considerable number' of delegates from Pasture and Stock Protection Boards - there were over 200 people present. The experiment was similar to the initial one that Pasteur himself had carried out in France, and was highly successful. The Anthrax Board declared that the experiment "conclusively demonstrated the efficacy of M. Pasteur's 'Vaccine of Anthrax' as a preventive against that disease, and therefore recommend[ed] its adoption and use". Kendall also learnt their method for the cultivation of pleuropneumonia virus and inspired by this, Kendall and Mitchell returned to Melbourne and reportedly immediately began cultivating lymph for the inoculation of Victorian cattle.

6.4.2. Inoculation against Contagious Pleuropneumonia was in use in Australia in the early 1860's, soon after the introduction of the disease through Boadle's heifer, using lymph obtained from diseased animals. Originally this was done by inserting either a small piece of diseased lung into an incision, or a seton dipped in lung exudate into the tail. The latter had proved more effective, but the former was quicker and easier to effect. However opinions varied as to its efficacy as the vaccine became easily contaminated and reactions in the cattle varied enormously. It was not
compulsory, and there were even some who viewed inoculation as "noxious, ineffective and dangerous", yet the spread of disease was so rapid and devastating that when testing by the Chief Inspector of Stock in New South Wales, Alexander Bruce, and P.R. Gordon in Queensland, served to confirm the positive value of inoculation as early as 1862, the concern amongst pastoralists was great enough for the demand for virus to become so heavy that much of the available product was contaminated, of poor quality and unfit for use. This was due to the crude methods used to collect the vaccine, and also to the fact that it did not stay fresh, or potent, for long. Hirschfeld states that much credit is due to Bruce and Gordon for encouraging Australian stockowners to use inoculation measures, thus saving "millions of pounds", when they were still not being systematically adopted in other countries. Vaccination was particularly popular in Victoria, however it was only a preventive measure, not a cure, and considering the speed with which the disease had travelled into the other colonies, veterinarians and stockowners alike were keen to trace the source and method of its spread.

Although research was initiated at the VRI, it was not until 1932, when Arthur Turner moved from there to Townsville, Queensland that a test (known as the Campbell and Turner complement fixation test) was devised which
proved to be extremely specific. At the same time a culture vaccine was evolved that ensured a high degree of resistance to pleuropneumonia and yet minimised the adverse reactions that had been evident with earlier types. With the new power of detection obtained by the test, vaccination was widely advocated and was indeed made mandatory for all contact animals. This was without doubt the most important veterinary discovery to affect pastoral economy and wellbeing in Australia to that time.

6.4.3. Robertson believes that Kendall was the first to use tuberculin in Victoria, when in 1895 he experimented at the MVC with tuberculin brought from Germany by Dr. J.W. Springthorpe.

On his arrival in Victoria, Kendall had discovered that virus for inoculation against pleuropneumonia was being produced from tuberculous animals by "laymen, ignorant of even the elements of pathological knowledge", and that this was contributing to the spread of tuberculosis in the population. Widespread inoculation against pleuropneumonia was valuable, but if adulterated vaccine was used that spread bovine tuberculosis amongst dairy herds, the human population was at risk from consuming milk from these tuberculous cows.

At the turn of the century, approximately 0.1% of the population in Victoria was officially diagnosed as suffering from some form of tuberculosis; allowing for
probable failure to report cases and risk of incorrect diagnosis, the true figure could well have been higher.\textsuperscript{57} Prior to 1884, bovine tuberculosis was only checked by inspection at the Melbourne City Abattoirs.\textsuperscript{58} However in 1884 both Mitchell and Kendall estimated the incidence of tuberculosis in cattle to be between 10 and 20\%. That year, thanks in large part to their remonstrations, a Board of Inquiry was convened by the Victorian Government to examine bovine tuberculosis with particular relevance to its transmissibility to humans, and to ascertain the most successful method for preventing the disease.\textsuperscript{59} Six veterinarians were amongst the witnesses called and Mitchell and Kendall answered by far the largest number of questions.\textsuperscript{60}

When Kendall had arrived in Melbourne he had found that there was no supervision of, or legislation over, milk production. He suggested in his evidence that the spread of tuberculosis was also due to malpractice through lazy habits and poor hygiene when obtaining the pleuropneumonia "virus". He stated that he had proved experimentally that tuberculosis could be spread by pleuro virus obtained from an animal suffering from both diseases at the same time.\textsuperscript{61}

The Board of Inquiry met nine times in 1884 after which it issued a Progress Report. This was followed later in the year by a comprehensive Final Report. Though no
experiments were attempted, the report vindicated the veterinarians' views and agreed that animals known to be tuberculous should not be used for dairy purposes. From 1887 bovine tuberculosis was made a notifiable disease under the Diseases of Stock Act (1872). Various recommendations were made on quarantine, the dangers of infected meat and the appointment of dairy inspectors, but initially, the controls were not strictly enforced. However, a precedent had been set and in 1896 S.S. Cameron was appointed Veterinary Inspector to the Board of Public Health. Cameron became responsible for promoting inspection of cattle and for a campaign to alert the public to the dangers of infection through the milk supply. The Meat Supervision Act of 1900 established a system of meat inspection, firstly in the Melbourne metropolitan area and later spreading to country centres. Largely due to Cameron's efforts, dairy inspection was started under the Milk and Dairy Supervision Act of 1905. At this stage testing was not compulsory, but the VRD set up a Milk Laboratory for the Melbourne metropolitan area that was responsible for milk testing. Regular inspection of dairies and cattle was initiated by lay inspectors, and followed up by veterinarians if in doubt or at any signs of disease. A lot of the work at the VRD was provided by these inspectors, who would bring in specimens from the field for diagnosis. Later, responsibility for the
inspection system was given to the Department of Agriculture, and Cameron was transferred to the Department as Chief Veterinary Inspector, becoming Director in January 1911. It was Cameron's view that it was a waste of a good man's time to ask one of the very few trained veterinarians to spend hours going through a herd of a hundred cows or more to detect a disease that had maybe a 5% incidence. The initial examination was therefore done by the stock inspectors, who were unqualified officers of the Department of Agriculture; any animals with abnormalities were separated for the veterinarian to examine and diagnose, thus ensuring that no disabled animals were used for the production of milk for human consumption. Cameron built up an efficient service, the extent of which would have hopelessly overstrained the State's resources of trained men; but he nevertheless received criticism from some quarters, especially in the Depression years when numbers in the veterinary profession were falling off, that he was depriving trained men of work, and thus lessening the demand for the veterinarian's services.

Destruction of infected stock was rarely implemented until the Cattle Compensation Act of 1924, which put tuberculosis on the same footing as other highly infectious diseases such as pleuropneumonia, and which by compensating owners for the financial losses incurred by the compulsory destruction of stock went a long way to ensuring the
cooperation of farmers.

In 1930 it was estimated that 8% of dairy cows in Victoria were tuberculous, thus still providing a threat to human health. In 1933 the Department of Agriculture moved towards a solution to this problem. W.T. Kendall's son, Ernest Kendall, was appointed chairman of a committee that investigated Melbourne's milk supply and in the following year became the first Chairman of the Milk Board of Victoria. This Board was established to control the collection, pasteurisation, wholesaling and retailing of milk, but in 1936 the AVA was still sufficiently concerned about the control of tuberculosis to issue a formal statement which emphasised the effects on human health and the country's economy, claiming that it cost Australia half a million pounds yearly. They were adamant that tuberculin testing of cattle was the only way to ensure that the public health could be freed of tuberculosis. From 1937 tuberculin testing was becoming implemented statewide, and accreditation of tubercle-free herds was introduced.

6.4.4. From the latter part of the nineteenth century, there were large economic losses in Australia due to *fasciolosis* (fluke infestation), not only because of death, but also in sheep due to deterioration in value of wool and meat, and in cattle to loss in milk yield. Dr. Georgina Sweet carried out
research on the liver fluke, which has a life expectancy of approximately four months and can produce up to 20,000 eggs daily. Death from heavy fluke infestation can occur very suddenly. Fluke was traced to the freshwater snail, which reproduces and migrates at a rapid rate in summer, and can survive during prolonged dry periods by burrowing into the mud. However, the significance of the liver fluke is that although Black Disease⁶⁶ is caused by a bacterial infection, the way for its growth is paved by the fluke. Black Disease caused very high loss rates, both in revenue to the country and in the cost of attempted prevention and eradication. H. Albiston initiated work at the VRI after World War I on what he termed infectious necrotic hepatitis. One of his research students was Arthur W. Turner who proceeded to isolate the microbe and to ascertain the extent of its link with the liver fluke. In the first instance, to attack the fluke involved bluestoning the pastures and drenching the sheep with a carbon tetrachloride solution. Turner, however, concentrated on formulating an attack on the organism. His first attempts to find a reliable vaccine were not entirely satisfactory, but in 1929 he succeeded with an anaculture prepared by adding formalin to the oedamatiens (naryi) culture, that showed improved results on double or triple application.⁶⁷ In 1936 an alum-precipitated vaccine, applied in a single dose, was developed that
produced a high degree of immunity, and which became the accepted measure for both prevention and control.

In 1926 Turner had gained a Rockefeller Exchange Fellowship and was fortunate enough to spend some time studying anaerobic organisms at the Pasteur Institute and in Cambridge. In his return to Australia he joined the Council for Scientific and Industrial Research and became the Veterinary Officer in charge at the Townsville Research Station. In 1931 he was awarded his D.V.Sc., and his thesis on Black Disease was awarded the David Syme Research Prize for 1932. His examiners reported:

The work reveals a profound knowledge of the subject in hand, its literature and its technique, a critical sincerity combined with a breadth of outlook - an awareness of possibilities - which combination is the essential for any first class research work. The work embodied in this thesis is a comprehensive study, bacteriological, pathological, experimental, and not only constitutes an elucidation of a problem of animal pathology, but is a valuable contribution to preventive veterinary medicine of great economic importance to Australia. The thesis is alike a credit to the author, to the University of Melbourne and to the Commonwealth Council for Scientific and Industrial Research.

In March 1932 he became the first veterinarian to gain a D.Sc. (Melb) for a thesis dealing with the fate of the spores of anaerobic organisms in the animal body.
6.4.5. Bovine brucellosis, or contagious abortion, was another serious problem in cattle and in a very few cases, through ingestion of infected milk or through the skin, was also the cause of an illness similar to undulant fever in humans. In the latter case, it was considered an occupational hazard for those who handled infected cattle, particularly those who accidentally infected themselves when vaccinating cattle. Research on this disease, particularly on the standardisation of the agglutination test that was used for diagnosis, was carried out by Albiston and his team at the VRI, and later, on vaccination, by Seddon at Glenfield Research Station.

In 1954, Ian Clunies Ross, the then Chairman of the CSIRO, in giving the Presidential Address and Kendall Oration at the 30th Meeting of the Australian and New Zealand Association for the Advancement of Science (ANZAAS), divided the history of Australian veterinary research programs into three phases:

The derivative phase - the late nineteenth century to 1914;
The Great Period of Bacteriological and Parasitological Research - 1920-1939;
and finally

Clunies Ross was adamant that:

The distinctively Australian contribution to knowledge of the nature and methods of control of such diseases as pleuro-pneumonia of cattle, black
disease, foot-rot and entero-toxaemia of sheep, and the diseases of ruminants caused by trace element deficiencies of copper and cobalt rank today as classics. In the field of parasitology, and particularly the internal parasites of sheep, Australian work ranked equally with the best done elsewhere.73

This middle period was an exciting and fulfilling time and undoubtedly those twenty years saw an enormous increase in research activity, particularly in the areas of the control of animal disease and the improvement of animal nutrition. It was proof of the benefits accrued through the scientisation of the veterinary profession.74

6.5 The part played by the VRI

Veterinary research activity in Victoria was confined to the VRI, which became part of an Australian network investigating animal health. With the University School's emphasis on training in the new sciences of parasitology and bacteriology, its staff were keen to do work of significance to the Australian economy. Prior to the establishment of the VRI research had been minimal and carried out in isolation, but after Gilruth's arrival in Melbourne the whole orientation of veterinary education and research changed and therefore had an increasing impact on Australia's resources and international trade.

When the VRI was established under the terms of the University Act of 1908, Gilruth automatically became its Director. Its function was to provide both the practical experience necessary for the teaching program of the new
University School, and research and diagnostic facilities for veterinarians and the agricultural sector.

The diagnostic services of the VRI were available to the whole State, not only for governmental work but for the private practitioner, many of whom, though aware and interested in the opportunities opened up by the new routines, had not had the opportunity to gain the skill or know-how to carry them out themselves. In general, by their acknowledgement of the need for the specialised investigation of preventive measures to counteract livestock disease, and the recognition that this could no longer be carried out by therapeutic means and the use of a practised eye, veterinarians were acknowledging the need for scientific expertise. The work demanded a certain standard of training that would have been unavailable and totally foreign to the old horse doctor. The work of testing was labour intensive and time consuming, and the staff worked under poverty-stricken and uncomfortable conditions, but they built up a reputation as a reliable diagnostic institution. Funding always presented a problem, and although the VRI obtained a small income from these diagnostic tests, its charges were very low - so much so that demand did not appear to be affected by the Depression. 75

As noted earlier, the VRI also set up the Milk Laboratory for the Melbourne metropolitan area. In order
to ensure a safe supply of high grade milk for human consumption, it was responsible for the bacteriological examination of milk samples.

The Institute was lucky to attract some of the brightest students from the University School,\textsuperscript{76} and its staff was responsible for initiating much research on animal disease – Albiston, who did a lot of the early work on infectious necrotic hepatitis, and on contagious abortion; Turner, who built on Albiston's work and made a breakthrough in the treatment and prevention of Black Disease that was "of considerable scientific and institutional significance ... an important step in the development of veterinary medicine, particularly immunology"\textsuperscript{77} and on pleuropneumonia; Lionel Bull, who spent the first year of what was to be a brilliant career at the Institute, doing parasitological research with Georgina Sweet;\textsuperscript{78} H.R. Seddon, whose early work on brucellosis achieved international recognition, and who took part in many aspects of the research being carried out at the VRI, particularly that on bovine mastitis and poultry disease,\textsuperscript{79} before moving to the Glenfield Veterinary Research Station as its first Director; Daniel Murnane, the first veterinarian to be appointed to CSIR in 1926, who worked with Turner and also carried out research on the buffalo fly; T.S. Gregory, another CSIR employee on loan to the Institute, who later moved over to work at the
new CSIR laboratory at Parkville in 1938 under Lionel Bull; George Heslop, who was employed as a Veterinary Officer by the Department of Agriculture and, after serving in France during the war, returned to work on pleuropneumonia, specifically on the agglutination test,80 until he moved out of scientific research and concentrated on working with the horse-racing fraternity.

There were close links between the VRI and the newly formed CSIR. On its formation in 1926 one of the Council's first tasks was to survey the possibilities for plant and veterinary research. Harold Woodruff had succeeded Gilruth as Professor of Veterinary Science and Director of the Institute in 1913, and remained until the University School faced closure in 1928. In this capacity Woodruff submitted a comprehensive scheme for veterinary research to the Executive of the CSIR, drawing on his knowledge of existing work being done in Australia. At his suggestion, the CSIR funded eight research positions throughout the country, and also agreed to pay the VRI £750 per annum;81 thus the VRI became heavily reliant on the help given them by the Council.

At the University of Melbourne Council Meeting of 7th May 1928 it was reported that Woodruff had been offered the position of Director of Bacteriology by the University, and Harold Albiston was appointed Assistant Director of the VRI.82 When Theiler's committee recommended to the
University that the work of the Research Institute should be continued on the closure of teaching, it was agreed that
diagnostic work for the Department of Agriculture is of paramount importance in the State, and the Committee concurs with Dr. Cameron's proposal to take over the officers dealing only with the Department's investigations and the Milk Laboratory work.

However, any suggestion that the Department of Agriculture should take over the VRI totally at this time was strongly resisted by the University, which wished the Institute to remain a department of the University in its own right. Yet as the Veterinary School was temporarily closed by the University and the VRI became financially dependent on the Department of Agriculture, though still remaining under the aegis of the University, the staff and the veterinary profession felt that they had been let down, particularly by Woodruff. They felt that the VRI was "an asset, unfortunately not fully appreciated, to the University of Melbourne and the State of Victoria". It was a credit to the staff that they achieved the results they did under stringent and difficult conditions. Financial constraints put a great strain on employees and there was always a need to seek external donations and scholarships. The cooperative work with the CSIR was therefore vital to the Institute's viability and reputation as a research centre.

In 1930, when the Animal Health Division of the CSIR was formed and Gilruth was provisionally appointed Chief,
the already close ties with the VRI were further strengthened.
References

1. Careers for Graduates No. 12: Veterinary Science, University of Melbourne Appointments Board.
6. John Gangee graduated from the RVC, London in 1852. After a year teaching at Dick's School he founded his own New Veterinary College in Edinburgh. He transferred this later to London as the Royal Albert Veterinary College, but financial difficulties ensured its closure two years later. However, Gangee's considerable literary and oratorical skills were employed at great length in warning the country of the probability of cattle plague and campaigning for the legislation of stock control measures and eradication of animal disease. This he did frequently and at length in the Edinburgh Veterinary Review & Annals of Comparative Pathology which he had started in 1858, in the newspapers and at gatherings both in the United Kingdom and overseas. Typical of this is a report of his Opening Address at the International Congress of Veterinary Surgeons held in Hamburg in which he pointed out how great the losses had been to his country and how he had "constantly drawn attention at home to the injury inflicted on the British people by the foreign trade" (Vol.V, 1863, 481)
10. Winslow, op.cit, 182.
animals and man”; also the "term 'zoonoses' was applied originally by Virchow to the diseases of animals that secondarily transmit their contagion to man. Karl Meyer prefers the term 'anthropozoonoses’, indicating animal diseases transmissible to man and vice versa – human diseases spread by animals, in effect”.


18. Ibid., 151.


27. Varying suggestions have been made for the cause of malignant catarrh, and whether it was imported or developed within the colony. There are repeated reports of an influenza-like illness with severe nasal congestion, severely affecting the upper respiratory tract and lungs (Robertson, op.cit., 1932, 310; Hindmarsh, W.L. "Historical Records of the Veterinary Profession in Australia, III, Aust.Vet.J., 43, 1967, 104).


31. Pullar points out (op.cit., 1965-66, 13) that Brock had attended some type of extension course at the Dick College in Edinburgh. He was appointed one of the Honorary Commissioners on the Royal Commission.


34. These did not come into operation in Victoria until after the Stock Diseases Act of 1872, and tightened up further under the Quarantine Act of 1908 with the establishment of a Federal quarantine service.

35. Seddon, op.cit., 1953, 369; Robertson, op.cit., 1933, 31l.


39. A veterinarian did not fill this position until 1910.


41. See chapter 3, pp.43-46.

42. Winslow, op.cit., 142-43.

43. Idem, 310.


45. Whilst they were in Australia, the two gentlemen also hoped to demonstrate the efficacy of the use of chicken cholera as a biological control of the rabbit population. In August 1887, the Government of New South Wales had proclaimed a prize of £25,000 for a process for the extermination of rabbits, which had reached plague proportions. Unfortunately the proposed solution was not particularly successful and was certainly impractical, and the prize was never awarded. M. Loir was Pasteur's nephew and wrote a book on his return - Microbiologie en Australie: Etudes d'hygiène &
de pathologie comparée, G. Steinheil, Paris, 1892. From this it is clear that there was an attempt to set up a Pasteur Institute in Sydney.

47. Robertson, op.cit., 1931, 207.
49. Hirschfeld, E. "On pleuropneumonia", The Australian Pastoralists' Review, 1892, 818-819. The author was Honorary Bacteriologist (M.D.) at the Brisbane Hospital.
50. Patrick Gordon (Chief Inspector of Stock) was so inspired by their visit that he persuaded the government in 1893 to set up and finance a Stock Institute similar to the Pasteur Institute - Clay, A.L. "Patrick Robertson Gordon", Aust.Vet.J., 35, 1969, 321. Seddon points out (op.cit., 1953, 399) that either pleural or lung exudate had come to be termed 'virus'.
51. Hirschfeld, op.cit., 819. It is interesting too, that Pullar (op.cit. 1968-69, 15) stated that Graham Mitchell and Richard Rutherford studied pleuropneumonia in India, continued their experiments in Victoria and Rutherford then went to Edinburgh to introduce their system of producing calf tissue exudate there.
53. This remained in use until the 1960's when it was refined by Huddert (in Queensland) and proved so simple and efficient that between 500-1,000 head of cattle could be tested during the course of a day and the results obtained within hours.
55. Robertson, op.cit., 1931, 207.
56. Kendall, op.cit., 1913, 707; 1916, 42.
57. March 1901 Census, Causes of Sickness and Infirmity: 1170 reported cases of phthisis and other types of tuberculosis in a general population of 1,201,341.
59. The Board consisted of three medical practitioners and two government representatives. Dr. A. Plummer, the Chairman, was a prominent livestock breeder and President of the National Agricultural Society of Victoria; other members were Professors H.B. Allen (Pathology, University of Melbourne), Dr. J. Jameson, (Melbourne City Health Officer), J. Buchanan MLC and the Minister of Agriculture, J.L. Dow, MLA.
63. Seddon, op.cit., 1965, 188.
68. In 1954, at the same time as Lionel Bull, he was made a Fellow of the Australian Academy of Science.
70. Anaerobes (tetanus, black disease, gas gangrene) are organisms that will not grow in the presence of oxygen and therefore present problems for research owing to the difficulty in reproducing the conditions under which these anaerobic bacteria will grow. Ordinary microorganisms are aerobes.
74. Research was also being carried out at Glenfield in New South Wales and in Queensland as already mentioned. H.W. Bennett was working on entero-toxaemia of sheep in Western Australia, and major investigations were proceeding in South Australia on animal nutrition and pasture agrostology.
76. All these workers gained their D.V.Sc. through the University of Melbourne.
79. The first large poultry farm with approximately one million birds, the precursor of the battery farm, was started outside Geelong at this time.
80. This turned out to be not very successful. Report in File AH19, Public Records Office, Melbourne.
82. University of Melbourne Minutes of Council 7.5.28. Albiston was to remain Director of the Institute for 32 years.
83. University of Melbourne Minutes of Council 5.8.29.
CHAPTER 7. VETERINARY SERVICES AND GOVERNMENT AGENCIES

Veterinarians gave their services in an honorary or part-time capacity to government services until the closing years of the nineteenth century, but during the remainder of the period under review there was a shift in veterinary practice from the private sector to employment within government agencies. This was due not so much to a lessening in need for their services within the community as to a widening recognition that the veterinarian could provide knowledge and practical experience in the expansion and improvement of the agricultural sector, and was therefore required to play an important part in government programs. So during the postwar years when it became increasingly hard to make a reasonable living in private practice, employment could be obtained with the government. At a difficult time, the level of expertise in research and service did much to enhance the reputation of the profession.

The earliest appointments to implement the control of animal disease in Australia appear to have been confined to law enforcers such as poundkeepers (the first pound was erected in Sydney in 1811, and a keeper appointed) and slaughterhouse inspectors. A public castrator was appointed in Sydney in 1824 at a remuneration of £25 per annum. The actual enforcement of the destruction of diseased animals was usually in the hands of the police or inspectors appointed specially for the occasion. As a
result of epidemics of sheep scab the 1832 Act provided heavy penalties in an effort to control spread of the disease. At this time the inspectors employed to trace outbreaks were men who themselves had suffered from epidemics in their own flocks. Pullar reports that in 1853, in Victoria, Robert Sheridan and Roderick Forbes were appointed Inspectors at a salary of £500 each, plus a forage allowance of £150 and £100 respectively (a quite respectable sum).

The Board of Agriculture, formed in Victoria in 1859, functioned through the Chief Secretary's Department, but was abolished ten years later. Animal disease control had been carried out by that Department, supervised by those sheep inspectors who had earlier been appointed by the Government, and who now cooperated with the Board. In 1872, influenced by the outbreak of foot and mouth disease and the passing of the Stock Diseases Act, the Department of Agriculture was established as a branch of the Department of Crown Lands and Survey; however it was not until 1882 that the Livestock Department's control of stock diseases transferred from the Chief Secretary's Department to the new Department of Agriculture. In 1890 the Department of Agriculture was established as an independent body.

In 1862 Edward Micklethwaite Curr was officially appointed Inspector of Sheep in Victoria at a salary of
£350 per annum. He was later promoted to Chief Inspector of Sheep and then in 1872, after the passing of the Stock Diseases Act, to the newly established position of Chief Inspector of Stock at a salary of £700 per annum. Up until this time veterinary surgeons had merely acted as consultants to the Government when required, but under the same Act of 1872, Graham Mitchell was appointed Veterinary Surgeon to the government—the first official veterinary appointment in Victoria, although it was only a part-time arrangement. He had already been appointed Honorary Veterinary Surgeon to the National Agricultural Society, and to the Royal Society for the Prevention of Cruelty to Animals on that Society's formation in 1871.

However, the stock inspectors and the men responsible for carrying out importation and quarantine inspection were still those laymen originally appointed under the Sheep Scab Act. An article from the Melbourne Leader reprinted in the British Veterinary Journal in 1878 indicated disquiet about this. It attacked the system whereby men who had been appointed to deal with Scab were still drawing their salaries despite the fact that the disease was by then non-existent and they were incompetent (so it was stated) to deal with anything else. The article is a straightforward attack on Curr who, it said, as head of a Scab department, needed no professional knowledge or technical qualifications, and who now found himself in a
position for which he was unfitted. The article suggested that there should be a veterinarian as head of the department and a staff of four or five veterinary sub-inspectors, working in conjunction with laymen. But this appeared premature and extravagant at a time when veterinary services were only just beginning to be appreciated in the pastoral community, and nothing was done. In 1892 the Argus reported that a deputation had called on the Minister of Agriculture requesting that a qualified veterinary surgeon should be appointed to a full-time position as Government Veterinarian. This deputation apparently consisted of representatives of the Royal Agricultural Society, the Royal Veterinary Graduates' Society, the Australian Sheepbreeders' Association, the British Medical Association (Victorian Branch) and the Medical Society of Victoria. This indicates widespread support for the veterinary profession. The deputation was willing to face the fact that, at the time, the Government was retrenching officers rather than appointing them, but suggested that if the Government could not afford to create a new office, it should at least appoint a veterinarian to the position of Chief Inspector of Stock. The Registrar of the Veterinary Board of Australia (H.A.M. Christophers) confessed privately that he felt there was "no chance of the Government appointing such an Officer" and indeed nothing came of the proposal. Not until W.J. Cother's
appointment as Chief Inspector of Stock in 1911 did a veterinarian hold this position. In 1916 the position of Chief Inspector of Stock was formally combined with that of Chief Veterinary Inspector and at last attention to the health of livestock was consolidated under veterinary supervision.

In 1896, however, on being appointed Principal Veterinary Officer to the Board of Public Health, Samuel Sherwin Cameron had become the first full-time veterinary inspector in the Victorian government service. In his new capacity he was responsible for the Meat Supervision Act of 1901 which introduced regulations for the slaughtering of cattle, and he also became very involved with standards of milk production. He was instrumental in the planning of the Milk and Dairy Supervision Act of 1905, and after the Act was passed he was transferred to the Department of Agriculture as Chief Veterinary Inspector in 1906 in order to oversee the administration of the new dairy regulations and to be in charge of a new Stock and Dairy Supervision Branch. In 1911, the Director of Agriculture, Thomas Cherry, was appointed to the Foundation Chair of Agriculture at the University of Melbourne, and Cameron succeeded him as Director of Agriculture, holding this position until he retired in 1931. At the same time, a small group of veterinarians was taken on as consultants to the lay
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inspectors. As mentioned previously, Cameron elicited a fair measure of hostility from the veterinary profession over his establishment of a team of lay inspectors rather than professionals, to be responsible for the implementation of the milk and dairy legislation.

W.A.N. Robertson took Cameron's place as Chief Veterinary Officer when the latter was promoted to Director of Agriculture, combining this office with the position of Chief Inspector of Stock on Cother's retirement in 1916. His handling of an eradication campaign for cattle in Western Australia in 1923, which prevented the spread of the dreaded disease, rinderpest, earned him the respect of politicians and members of the profession alike. At that time, Robertson was acting in another capacity, as Chief Quarantine Officer (Animals) in Victoria, and was seconded to the Commonwealth Government in order to report on the disease, becoming its representative on the Board that was appointed to control the outbreak.

Initially, quarantine arrangements had been in the hands of each colony, but in 1908 the Quarantine Act was passed bringing in uniform controls and regulations for the whole of Australia. In February 1909, the Chief Inspectors of each State met to sort out the details of a workable system — subjects such as "scheduled diseases, countries from which animals were to be prohibited, periods of quarantine, restrictions and conditions of importation
both of animals and animal products, port of entry, quarantine stations and control of ships' animals, fees and charges. Six months later the regulations emanating from their deliberations became law. The Commonwealth took over the quarantine stations, but the individual States retained responsibility for administration and organisation of the service on behalf of the Commonwealth. The Chief Veterinary Officer in each State also acted as the Chief Quarantine Officer (Animals) for that State. The Department of Trade and Customs administered the Act until 1921, when this was taken over by a new Division of Quarantine which came under the aegis of the Department of Health. As a result of a Conference held in 1925 to review the system, a Commonwealth Division of Veterinary Hygiene was set up within the Department of Health, and Dr. Robertson became its first Director. Thus "commenced a new phase of Commonwealth and State liaison."

Prior to the establishment of the Council for Scientific and Industrial Research (CSIR) in 1926, opportunities for veterinary research had been particularly limited, being the responsibility of the universities or the State governments. However Schedvin points out that Australian universities were primarily interested in and funded for teaching, and that research came a very poor second. In the case of veterinary science, at least the
VRI had been established at the same time as the University teaching department, but its scope was very limited and it suffered from a constant lack of sufficient funding.

In 1916 the Commonwealth Government established the Advisory Council (four years later becoming the Institute) of Science and Industry. Following the example of the British who, alarmed by their own state of unpreparedness and reliance on raw materials from overseas at the outbreak of the war, had introduced a scheme for the encouragement of scientific research, the Prime Minister (W.M. Hughes) had announced that Australia would form its own organisation to promote research in both primary and secondary industry. For all its good intentions, the Institute failed through lack of finance. Despite repeated appeals the Director, Sir George Knibbs, was forced to operate on a shoestring budget which barely covered basic salaries and expenses, let alone any research grants. Currie and Graham liken Knibbs' situation to one of "financial starvation".

In May 1925 a new government under S.M. Bruce called a conference of business, State government and university representatives and plans were drawn up for the reorganisation of the Institute. In June 1926 a bill was passed amending the Institute of Science and Industry Act and establishing the Council for Scientific and Industrial Research. Sir George Julius was appointed Chairman, with
A.C.D. Rivett and W.J. Newbigin as members of the Executive. Newbigin died the following year and was replaced by A.E.V. Richardson.

At the first meeting of the Council, it was agreed that research should be concentrated primarily on five areas, of which animal pests and diseases was one. The Executive sought advice from Harold Woodruff and a conference was convened of leading veterinary pathologists. As a result of this, it was decided that the Council should offer assistance to the current veterinary research institutes, enabling them to continue and to expand their work on problems of most concern to the country's pastoral economy. There is even mention that at this stage the Council was in communication with the University of Melbourne regarding the possibility of taking over the VRI if the Veterinary Department should be closed for teaching.

Also in 1926, the Empire Marketing Board had been set up in Great Britain, on the recommendation of the Imperial Economic Commission, for the purpose of "furthering the marketing in this country [Great Britain]... of Empire products" with a budget of £500,000 in 1926 and £1,000,000 the following year. It was a plan that benefitted both the Empire and the Mother Country, because the Board was intended to encourage the production of raw materials which could be used to manufacture goods in
England's industrial centres. However, because this robbed the colonies of a proportion of their own industrial expansion, it also served to delay their full-scale industrialisation. Finance became available to Australia from this fund for research to improve primary production, and the instrument for the implementation of these plans was the CSIR. Consequently one of the first problems facing the Executive was the appointment of a Chief of a proposed Division of Animal Health, although there was neither an easy, nor immediate, solution. It was hoped to attract someone of international repute with practical, administrative and research experience.

Sir Arnold Theiler had recently retired from the Directorship of the Veterinary Research Institute at Onderstepoort in the Transvaal where he had gained his reputation as the "leading expert on sub-tropical animal diseases and as a pioneering investigator of their bacteriological, toxic, parasitic and other causes". In 1927 he was in London being courted by the Colonial Secretary, L.S. Amery, who was keen to make use of his talents, and who recommended that he attend the Imperial Agricultural Research Conference in Cambridge. There Theiler was able to hold discussions with the Australian delegates, particularly A.E.V. Richardson. George Julius was also in London, and was determined to persuade Theiler, together with J.B. Orr, Director of Britain's Rowett
Research Institute, to visit Australia. His aim was to have them to report on the state of veterinary services throughout Australia, and to plan a strategy for implementing research through the CSIR. In March 1928 the Theilers sailed for Australia, being joined by the Orrs when they reached Ceylon. They faced a full and exhausting itinerary all round Australia and were welcomed enthusiastically by agricultural and veterinary interests. Theiler's chief research interest at the time was phosphorus deficiency and bone disease, and he was sure that he would be able to duplicate his South African findings. Theiler took his brief seriously and his report on "The Health and Nutrition of Animals" was a comprehensive account of the research being carried out. In Victoria, he not only toured the VRI but was taken to various properties to examine local conditions. He visited the abattoirs and Angliss's freezing works; he spent time with Ernest Kendall who was at that time Chief Veterinary Officer of the Department of Agriculture; he visited the Commonwealth Serum Laboratories, the Walter and Eliza Hall Institute, Dr. T. Cherry at the Cancer Research Division, the University School of Agriculture; he had a long interview with Cameron, who was by then Director of Agriculture, who arranged for him to go on the Better Farming Train. Consequently, during his time in Victoria, as in other States, Theiler had an opportunity to
see and discuss a wide variety of problems with veterinarians, agriculturalists and agronomists from academic circles, government departments and services, and farmers. Theiler kept a detailed record of this experience and obviously was vitally interested in everything he saw. His itinerary gave him the background to formulate a Report giving detailed recommendations for implementing a working Division of Animal Health within CSIR. His main advice to the Council [was] to take a wide outlook into the research of animal health. Australia's main industries are those of primary production; they are based on the health of animals. Animal health is national wealth.

Having covered such enormous distances and seen such a variety of people and problems, Theiler was convinced that if the Division of Animal Health of the CSIR was to be successful in its operations, it must not work in isolation from other institutions and departments but, on the other hand, the Chief of the Division should not control or interfere with the independence of those other organisations. Nor should the Division interfere with the work of State veterinary officers and the extension services that they offered. He emphasised the need for consultation and cooperation, and insisted that the new Division must not let its research workers get bogged down in the routine diagnostic work that was already being
covered, but should refer on all such inquiries.35

Theiler proposed the foundation of a Central Research Station in Canberra, supported by existing facilities (amongst them the VRI) and extended by laboratories in Tasmania, at the Waite Institute in South Australia, in Perth and at a sheep research station in Queensland. In addition, temporary field stations should be set up where the need was immediately apparent. He itemised staffing, stock, equipment and fittings. Finally, his "principal recommendation" was the early appointment of a Director or Chief of Division36 and before the end of his trip he had been offered the job. He was offered £2,000 a year with a housing allowance and was promised the right to employ his two daughters and one of his South African assistants.37

The Theilers left Australia in October 1928. Although Theiler himself was interested in the appointment initially, his wife was set against the move. For three months Theiler vacillated, with the Australians applying increasing pressure for an answer. In February 1929 he turned it down, but said he would consider coming out for one year to act as an adviser to the scheme, even if it was in a restricted form. Rivett, bitterly disappointed at his failure to attract Theiler on a more permanent basis, reluctantly agreed to the one-year appointment. However, with provisional bookings made, everything was cancelled two months later when Theiler was informed that he was
medically unfit for a move.

Both Theiler and Orr were "determined to promote inter-Dominion cooperation in research" and Part VI of Theiler's report was devoted to this approach. Theiler intimated that "problems are no longer considered to interest only one part of the Empire, but the Empire as a whole". He pointed out that veterinary research work was more economical in Australia than Great Britain, and urged that the CSIR make the Empire Marketing Board aware of this.

Theiler also noted that there was a marked shortage of trained scientific investigators and that it was therefore vital that the CSIR should promote postgraduate study in institutes overseas where there were more opportunities for research. He also felt it advantageous to encourage an exchange of students or research workers. This shortage was also acknowledged in the Council's 3rd report in 1929.

Theiler's proposals were no doubt in keeping with Australia's needs as a pastoral nation, but having been "given every encouragement to plan on a grand scale", they were well beyond the financial capacity of CSIR. Combined with Theiler declining the Director's position was a general tightening of the economy, and as a result the implementation of his main recommendations was deferred. It was decided instead to make greater use of the existing
research facilities, especially those connected with the universities. Theiler had also been consulted about the closure of the University teaching department in Melbourne in 1928, but as the VRI was kept on as a facility for diagnostic testing and postgraduate research, an opportunity was presented for cooperation with the CSIR.

In 1930 the Division of Animal Health was formally established and, the Executive having failed in its bid to attract someone of international stature, J.A. Gilruth was provisionally appointed Director. Gilruth had come to Australia originally with an impressive record, but he had been absent from veterinary research since he left the University to become Administrator of the Northern Territory in 1912, but he was more than able to meet the challenge of the position and provided effective and popular leadership to the Division until his death in 1937.

Although the pastoral industry was affected by the general downturn in the country's economy in the latter half of the 1920's, it decided to launch an appeal to set up a Pastoral Research Fund. At a conference of the Australian Wool Growers Council and the National Council of Wool-growing Brokers of Australia in June 1927 it was decided to impose a voluntary levy of 2s. per bale on wool, with the hope of establishing a capital fund of £200,000, the income from which could be utilised for pastoral research. The fund did not reach this target, but in
1930 the Australian Pastoral Trust was established after £44,000 had been collected. Approximately £2,000 per annum was made available from this, for five years, for research within CSIR on the investigation of the health of sheep. It was an act of support for the Council on the part of the country's farming community at a time when they were beginning to feel the effects of the Depression, and when it was becoming increasingly difficult for research to attract funding.
References


7. They were not paid a retaining fee, but a daily rate was agreed to, with travelling expenses - Robertson, op.cit., undated, 20.


9. The writer felt that Curr was grossly overpaid, and also that as an inspector of scab in sheep it had not been necessary for him to have any detailed or technical knowledge of animal disease. Scab is caused by an insect which is detectable to the human eye, and therefore inspection could be carried out by anyone without qualifications. Undoubtedly this was written by someone who had an axe to grind. J.R. Fisher (op.cit. 1984, 159) comments that Curr's record as Chief Inspector was undistinguished and marked by a "dislike of veterinary surgeons" arising from a sense of his own inadequacies - a feeling obviously reciprocated.

10. Argus, 9.6.1892.

11. Christophers, Letter dated 10.6.1892. to J. Keene RVS, Papers of the Veterinary Board of Victoria, Melbourne.

12. Cother had been the first student to graduate from the MVC and had joined the Victorian Department of Agriculture in 1897.

13. The Chairman of the Board, Dr. A. Gresswell, was a keen supporter of the veterinary profession - he had two brothers who were veterinarians in Great Britain. Dr. Gresswell also acted as an examiner at the MVC.

14. Cameron emigrated from Cumberland, England to join the Staff of the MVC in 1889 and had then gone to Dunedin, New Zealand in 1895 as Veterinary Offier.


16. See p.150.

17. Robertson won the W.T. Kendall scholarship which earned him free tuition at Longerenong Agricultural College in 1892-3. He entered the State Service as Veterinary Officer in 1906.
18. Robertson introduced herd testing in Victoria in 1912 and a new method of branding and earmarking stock, and was responsible in establishing the cattle compensation fund. He was appointed Chairman of the Cattle Tick Control Commission in 1925.


22. Even Germany.

23. Sir John Monash had turned down the position.


25. The others being plant pests and diseases; fuel problems, especially liquid fuels; preservation of foodstuffs; forest products.


27. Idem.


31. Cherry had been awarded a cancer research fellowship at the University of Melbourne with funding from the Federal Government in March 1925 to investigate any evidence of a relationship between cancer and tuberculosis.

32. These trains were used as a means for the Department of Agriculture to keep close contact with the farmers and primary producers. They were used in an advisory capacity, providing a forum for demonstration, informative exhibits, addresses and exchange of ideas. There were even classes for farmers' wives. The train always had veterinarians amongst the staff.

33. Gutsche, op.cit., 392.

34. Theiler, op.cit., 63.

35. Ibid, 59-60.

36. Ibid, 63.

37. Gutsche, op.cit., chapter 24. Theiler was well aware from the start that he was being wooed by the Australians, and that they hoped he would take the position.

38. Ibid, 393.

39. Theiler, op.cit., 60.

40. Ibid, 61.

41. 3rd Annual Report, CSIR, Government Printer, Canberra, 1929, F.291. referred to the shortage which was felt in "a world-wide movement for the greater application of science to all industry, whether primary or
secondary". The Universities felt that opportunities were given to CSIR for postgraduate study that were being denied them because of the stringency of their budgets.


43. It was an appointment of which no doubt Theiler approved, for in his Report he writes of the "privilege" that he had in meeting Gilmour (p.11) - a compliment reserved for him alone.


46. 4th Annual Report, CSIR, op.cit.
CHAPTER 8. AUSTRALIAN ARMY VETERINARY CORPS

The other main area of the public service where veterinarians had for some time played an important role was the Army. During the period under review, Australian veterinarians twice responded to the call of the Mother Country, being engaged at the front in both the Boer War and World War I. It was beneficial to the veterinarians that the Army should acknowledge its need for their services and also for them to be accepted on an equal footing to the Army officers. It was also apparent to the veterinarians that they should control their own activities within the Army. However, as in the aspects of civil life already discussed, in order to consolidate their standing, veterinarians were obliged to justify their role in the eyes of the government and the military administration through the value of their therapeutic and preventative services under war conditions.

Prior to Federation, each colony maintained its own defence force with a few veterinary surgeons attached to mounted units. The earliest record relating to veterinarians and the military in Victoria is of R. Gibton who had been offered a commission in a cavalry regiment in England after his graduation from the RVC in 1851, but who had decided to emigrate and seek appointment to a military unit in Victoria instead. He was apparently unsuccessful in his application. However 20 years later
in Victoria, H. Wragge and G. Snowball were officially attached to the defence forces in 1872 as inspecting veterinary surgeons, as was Graham Mitchell in 1874, all three serving on a voluntary basis.²

L.C. Whitfield has reported that a Veterinary Department was formed in 1886 in Victoria under the aegis of the colonial Defence Department, and the veterinary surgeons were granted honorary rank. In 1890 both veterinary and medical staff were required to wear the uniform of their unit, but remained unpaid.³ By 1892 some form of remuneration was being paid for service, though no travelling expenses were reimbursed and the veterinarians always had to supply their own horse. William Snowball, a Major attached to the Victorian Mounted Rifles and a nephew of George Snowball, had also been engaged as an Inspecting Veterinary Surgeon. In a letter to the Assistant Adjutant General he pointed this out and argued as well that the salary that veterinary surgeons were offered was very inadequate for the work they did.⁴ Snowball also emphasised that the Veterinary Department was "numerically deficient" and that a "special and distinct department" should be formed for other veterinary surgeons who could then be called upon when necessary. It is apparent from an annotation to the letter that this suggestion was received favourably.

The first active service listed for an Australian
veternarian is that of A. Willows, who died of typhoid fever in 1885 while returning from the war in the Sudan. Fourteen years later the Boer War broke out, and during the course of hostilities 25 Australian veterinarians volunteered for service. Of these, two graduates of the MVC, Ernest Kendall and H.S. Ruddock, were promoted to Veterinary-Captain with the 1st Victorian Mounted Infantry and the 2nd Mounted Rifles respectively. They were typical of the 16,000 Australians who saw service in South Africa for, apart from some of those who embarked with the first contingents, the Australians were nearly all part-time soldiers who, buoyed by a patriotic sense of duty to Queen and Empire, went off to the war ill-prepared and with no significant military instruction.

In England, acknowledgement of the value of the veterinary surgeon in the Army had been a long time in coming, and by the Boer War veterinarians were still not given the authority to control their own activities. In 1891 the Veterinary Service had been centralised and renamed the Army Veterinary Department, with the Principal Veterinary Surgeon (PVO) becoming a member of the War Office Staff and given the title of Director-General. A change in the War Establishments in 1898, however, was detrimental to the veterinarians, for it made no provision at all for the care of sick animals in the field but
instead enlarged the Remount Department, which had control over the supply and transport of animals to the Army at the front; also, although the service of the PVO was retained, there were no administrative staff to carry out his orders.9 Hence at the outbreak of war, the British Army had no effective veterinary service at all.

The previous year, following Queen Victoria's Diamond Jubilee on 22 June 1897, Britain's Secretary of State for the Colonies, Mr. Joseph Chamberlain, had chaired a colonial conference at which defence plans had been a significant part of the agenda. Britain was keen to establish an imperial defence force reserve in an attempt to strengthen her own military capabilities, at the same time wishing to ensure direct control of such a force by the British parliament.10 Certainly when war was declared, the British colonies responded promptly to the call to arms, but official responses from the Australians were guarded.11 Their troops - initially senior officers were not required from Australia - formed one Australian regiment, but "the deployment and control of Australian troops were handed over entirely to British authority".12 The Australian veterinary volunteers were thus immediately affected by the lack of any organised British veterinary service.

With the onset of war, organisation of the British veterinary service, and provision for staff and treatment
facilities, proved woefully inadequate. The loss of animal life was horrendous and in the main due not directly to war service, but to gross mismanagement resulting in appalling debilitation, disease and starvation. The enforcement of a ration scale at starvation level on mounts that were unfit, unconditioned and untrained, combined with a low standard of horsemastership in the British forces, led to enormous animal wastage in what has since been declared "a deliberate sacrifice of animal life and of public money". To make matters worse the Remount Department, with an inexperienced staff, was made responsible for the control of veterinary treatment; yet it was not until 1900 that a veterinary officer was put in charge of that Department.

Sick and debilitated animals were returned to the Remount depots, to be mixed with new arrivals from shipboard. Instead of rehabilitating the trained troop horse, the British relied increasingly on importing horses, and Australian veterinarians often travelled to the Cape in charge of a ship's load of remounts. E.A. Kendall travelled with such a load and reported that they landed at Durban in splendid condition and it was generally remarked by the Embarking Officer what a great difference in class and condition compared to a shipment of American horses from New Orleans which were landed at the same time. Our horses were greatly in advance of the others and admirably suited for the work of mounted infantry in South Africa.
Smith reports, though, that Australasian horses required time to acclimatise to South African conditions - "all big leggy horses failed; but others did well if given time". Thus as there was to be again in World War I, a divergence of opinion existed on the worth of the Australian remounts.

Having arrived in South Africa, the Australian veterinarians were deployed on a regimental basis as were the British officers, but there was no administrative organisation. Smith mentions that the exact number of serving colonial officers was unknown and remarks that the lack of documentation "is evidence of how completely their organisation was out of touch with the Veterinary Service of the Regular Forces". That the British had not got this documented themselves was not altogether surprising taking into account the poor organisation of the British contingent, and it seems unfair to pass the blame on to the colonial forces. Indeed, very little is documented of the services given by Australian veterinarians in the Boer War. They had to enlist for a minimum period of one year and a majority continued to serve in the Commonwealth Military Forces on their return to Australia.

Throughout these years, it seemed that the War Office in London did its best to delay the implementation of an organised Service under the control of veterinary
officers. The Veterinary Service had been placed under the Remount Department with disastrous consequences and, despite strong and repeated representations from the Council of the RVC, any change had been strongly resisted. Even a proposed deputation to the Secretary of War was refused by the War Office.\textsuperscript{21} The Australian volunteers found themselves working in the same abysmal conditions, under constraints that were considered by the Council of the RVC as "degrading, and as lowering professional status."\textsuperscript{22}

After peace was declared, in Great Britain there was a Royal Commission on the War, and a Court of Inquiry on the Administration of the Army Remount Department. The latter Court was an attempt to explain the high animal wastage, but the Remount Service was responsible for the purchase and transport of animals, and consequently the terms of reference of the Inquiry did not cover the campaign after animals had reached South Africa. It therefore failed to examine the cause of the losses. As it was primarily an evaluation of the Remount Service, not one serving veterinary officer was called to give evidence.\textsuperscript{23} Major-General Sir Frederick Smith, who was appointed Director-General of the Army Veterinary Service in 1907, attempted to make up for this deficiency in his account of the War, in the hope that it would stimulate interest and necessitate the reorganisation of the Veterinary
Department. In the Foreward to Smith's book, Field Marshall Evelyn Wood declared

The interesting work by Major-General F. Smith is a severe though just indictment of a Nation which prides itself on its love of horses. It would be difficult to exaggerate the importance of the study of this book by all Army Officers... there is everything to be gained by the publication of avoidable failures in Army administration.24

Previously, the veterinarians on their own had not had enough influence to be recognised by the government and the military as a force to be consulted and reckoned with. But amidst public remonstrations in the press, in 1902 a committee, called the Hardwicke Committee after its Chairman, the Earl of Hardwicke, was formed to inquire into the structure of the Army Veterinary Department. This proved a turning point, conferring non-compound rank25 on all Departmental serving officers and creating the Army Veterinary Corps from serving N.C.O.'s and men.26 Eventually in 1913 the veterinary service was dissociated from the Remount Department and made responsible directly to the Army Quartermaster-General (QMG).27 By the outbreak of World War I in 1914 the British veterinarians were running an efficient military service.

In Australia the first federal government, believing that the country needed a professional soldier with experience and knowledge of military administration to head their newly-founded military force, requested Britain
to send them a commander, and in 1901 Major-General Sir Edward Hutton was appointed. He had had wide experience of serving with colonial forces, particularly in the Boer War, and prior to that had been commandant of the New South Wales militia. He therefore seemed to fulfil all the criteria for a successful appointment. Hutton believed in the Colonial Secretary's plans for the Empire, particularly that of forming an imperial military reserve with components from the colonies which could be called upon in time of war. He was adamant that a veterinary department was a vital necessity to the army in the field, and it was his belief that this department should make use of the administrative experience gained by the Medical Services. Consequently he reported:

A scheme of organisation is in course of preparation for the formation of a veterinary department on the lines adopted for the Army Medical Corps.... the veterinary department is as necessary for the maintenance of efficiency of the horses required by the army in the field as the medical service is for the well-being of the officers and men themselves.

In 1904 the Veterinary Department was organised under the administration of the Director General of Medical Services, and in 1909 the name was changed to the Australian Army Veterinary Corps (AAVC). The South African experience had shown that it was absolutely vital that the veterinary officer should be able to call on fully trained subordinate
personnel and with the formation of the AAVC, enlistment of men into such units as the remount and transport services became possible. In 1911 provision was made for a section of the AAVC to be formed with a permanent complement of serving officers and other ranks.

Kendall, in his position as the PVO, 3rd Military District (Victoria), pointed out that veterinary officers were offered a lower probationary rank than that offered to those in the medical services. [so] that existing officers in the A.A.V.C. feel that they are placed at a distinct disadvantage as professional men in not being put on the same footing as the medical services in this matter and in this I thoroughly concur. I may also add that prior to the organisation of the Commonwealth Forces no such difference existed between the two services. In both cases first appointments were made with the rank of Captain and I think this practice could be reverted to with decided advantage to the Corps and Forces generally.

In the eyes of the veterinarians this was a clear and unfair anomaly, and in 1913 it was removed.

The following year the administration of the AAVC was once again entrusted to the Director of Remounts in the QMG's Branch. Fortunately for the profession, the QMG (V.C.M. Sellheim) favoured the appointment of a veterinarian as Director of Veterinary Services; but the claim that "a professional arm of the service should be
controlled or directed by a professional officer" was vetoed by the government on the grounds of financial expediency. In June 1916, the PVO's of the 1st, 2nd and 4th military districts wrote to Headquarters requesting a reconsideration of the situation. This appears to have been part of a concerted appeal, because on 12th July 1916 a resolution of the Veterinary Board of Victoria was also conveyed to the Minister of Defence, suggesting "the advisability of bringing the Veterinary Department into line with the principle established under the Imperial Forces."

The organisation of the AAVC was now to be finally modelled on the central administrative system of the reformed British service, one which Henry claimed "was found so greatly superior to other types of organisation in the Great War". In each Division the Deputy Assistant Director of Veterinary Services (DADVS) was responsible to his Assistant Director of Veterinary Services (ADVS). Each of these ADsVS would report to the DVS of either the BEF (British Expeditionary Forces) or AIF (Australian Imperial Forces), who in turn were under the direct control of the Director-General of Veterinary Services at the War Office (DGVS). This principle of decentralising the services into smaller, more immediate, units at the grassroots, yet ultimately being answerable to a central authority, was crucial to the smooth running of
veterinary services during the final years of the war.

At the outbreak of war Ernest Kendall (by now Lieutenant-Colonel) was appointed Acting Director of Veterinary Services in the AIF. As Acting DVS, and later DVS, Kendall was to be responsible for the entire organisation of veterinary services for the AIF, which also included the supervision of those veterinary officers who made recommendations to the remount service. At long last, with the full approval of the QMG, a veterinarian had taken over the organisation of the veterinary section of the Australian Army. Max Henry spoke for all the profession:

It was a profound relief for all veterinary officers ... to get away from the absurd and obsolete system whereby the veterinary services were placed under the Director of Remounts ... The A.I.F. would never have possessed an efficient veterinary service unless this reform had been carried out.37

Prior to the formation of the Australian Remount Branch in 1911-12, horses had been hired for use by the Army, but by 1914 an organisation to purchase, receive, train and issue remounts had been established at thirteen permanent and three temporary depots, each purchasing board consisting of a purchasing officer and a veterinary officer.38 Originally these veterinarians were members of the AAVC or in government employment, but after mobilisation the services of the few private practitioners who were not serving at the front were sought, and an
Australian Army Veterinary Reserve was formed. The Veterinary Services Department was responsible for the health of the horses purchased by the Remount Branch both before and during transportation to the front line, as well as for organising and training personnel for service overseas. Trainees underwent a three-month course of instruction as veterinary attendants prior to embarkation.39 Ernest Kendall was responsible for these services until October 1915 when he proceeded overseas, being succeeded firstly by J. Penrose and then by Professor (Major) J.D. Stewart from Sydney University.

In December 1915, Brigadier-General Sellheim, who was by then Commandant of the AIF HQ in Cairo, had cabled the Department of Defence in Melbourne that he was in favour of Kendall being officially appointed DVS for the AIF (as he was also in favour of the appointment of a Director of Medical Services to the AIF). It had been agreed by the GOC, General Birdwood, that the AIF veterinary establishments should be closely allied with the British establishments, and so by serving on Sellheim's staff, Kendall could administer and coordinate the Australian veterinary services in France and Egypt, cooperating closely with his British counterpart (Major-General J. Moore).40 Initially, Kendall himself wrote that as he was already consulted by the DVS (BEF), his official appointment seemed unnecessary;41 however, his excuse
was over-ruled and undoubtedly his appointment added considerably to the standing of the Australian veterinarians. Kendall was later moved from France to Headquarters in London, from where he was to organise the demobilisation of both the animals and men of the AIF on the cessation of hostilities.

Altogether 125 veterinarians joined the AIF. Initially two mobile veterinary sections (MVS) accompanied the Light Horse to Egypt in December 1914, the Victorian section being under Captain Will Kendall. They were left with the task of attending all the horses after the majority of the men of the Light Horse Regiments had proceeded to Gallipoli as infantry. These two sections were then disbanded and the Australian Army was reorganised into four divisions. The Service ultimately included a Veterinary Evacuating Station, 5 MVS, and a hospital for 1250 horses at Calais; there were also 5 additional MVS in Palestine, under the command of Captain John Kendall, which operated under very onerous conditions.

It is perhaps difficult to distinguish between the intensity of extreme discomfort endured in the desert and in the horrors of the European 1916-17 winter. Ernest Kendall summed this up - "Personally I do not know which is the lesser evil, an Egyptian summer or a French Winter in the North. Anyhow they are both damnable". Towards the end of the war the DDVS in charge of each Division kept
detailed reports, or War Diaries, and these survive as an exact record of the extent and efficacy of the veterinary services. Some ADsVS completed additional histories as appendices to their war diaries, or separately for the Australian War Records Section. Henry's description of the First Somme Campaign gives a fair impression of the conditions in France:

The worst difficulty to contend with was the mud, which was everywhere making one mile of work equal to ten on a good road, which clung to the tails and hair of the coat and formed hard balls and lumps which made grooming a torture to the animal and an almost impossible piece of work for the man. Next was the wind which cut across the open country like a knife and in those units which had not had sufficient energy to provide a wind screen took condition off the animals at an alarming rate. The roads were in a fearful condition and owing to the mass of traffic horses were unavoidably kept in harness for hours longer than was necessary to do the work with consequent irregular feeding and watering and further loss of condition. On top of this the ration was cut down, remounts became difficult to obtain, the hospitals were overcrowded with sick animals and units had to hold horses on their lines long after they should have been evacuated. As a consequence of the continued exposure to wet and mud, the impossibility of cleaning and drying the legs, and the very foul condition of the ground any wound in the legs became a serious matter...In the early part of the winter for some reason or other the Infantry Bdes, became so short of shoes as to be practically immobile, and in many cases of hoof injury had to be evacuated which should have been saved (sic).
John Kendall wrote a draft of a special veterinary history of the campaign in Egypt and Palestine. Here the searing heat in summer was exacerbated by shortage of water; the enemy had blown up water supplies in their retreat and the animals often had to survive on saline water or go without altogether, on long marches of 40-80 hours' duration. The durability of the Australian horses was commented upon favourably but in reality the fact that they had had time to get acclimatised to the desert conditions over the period of the Gallipoli campaign, combined with the practice of the Australian mounted troops walking their steeds at a fast pace that did not entirely exhaust them, rather than the British habit of trotting, certainly contributed to their hardiness. It was a tribute to the men who trained and looked after the animals that the losses were not considerably higher. In instructions to units it was frequently emphasised that the primary task of the Service was the prevention of sickness and this involved setting up the best regimes in such areas as feeding, grooming, quartering, transportation and inspection that were possible in combat circumstances.

In contrast, the Turks lost a large percentage of their camel transport through surra and mange, and captured horses had to be vigorously mallein-tested as glanders was endemic in their ranks. It is estimated that 1.5 million doses of mallein were used in France alone throughout the
war. Captured German documents showed that the enemy had to contend with a considerable amount of contagious disease and there was a very real risk that captured animals could introduce these diseases and spread them amongst the animals of the AIF. Even captured equipment was often destroyed for fear of risking infection in Allied stock, and if it was necessary to use horse-drawn transport vehicles, these had first to be thoroughly disinfected.

The DVS (BEF), Major-General Sir John Moore, published "An Appreciation of the part played by animals during the War 1914-1919", and he lists the total number of admissions and re-admissions of horses and mules belonging to the Expeditionary Forces to veterinary hospitals and depots in all theatres of war as 2,526,549, of which 78% were cured and returned to duty. John Kendall estimated that the total losses during the entire campaign in the Egyptian sector did not exceed 16% of horses, mules and donkeys, and 30% of camels per annum. Both John and Will Kendall and Max Henry made particular mention of the hardiness, usefulness and reliability of the mule.

Veterinary officers reported that the commonest ailments they had to treat were mange, P.U.N. (picked up nail) and the effects of mustard gas. Any serious outbreaks of glanders, lymphangitis and stomatitis, which had been the cause of great losses in the Boer War, were
quickly eliminated by systematic mallein testing in the former, and effective control by the immediate slaughter of all diagnosed cases and isolation of contacts.\textsuperscript{56}

Towards the end of the campaign the number of battle casualties, exacerbated by appalling conditions, put a great strain on the resources of the veterinary services. Despite the cooperation of the veterinary schools in Australia, which hurried through the completion of graduate training by cutting out vacations, the supply of officers from the home country was quite literally drying up. To help counteract the shortage of attendants, men were given the option of working as attendants on being discharged from hospital, rather than returning to lines of communication - a system that worked so well that the British followed the Australian example.\textsuperscript{57} Courses of lectures were provided for Transport Officers and Sergeants, and Schools of Farriery were set up to provide a six-week training course in order to overcome the shortage of shoeing smiths - a move which not only helped to meet the manpower crisis in the extended services of the veterinary sector, but also prepared volunteers for a career on their repatriation.\textsuperscript{58}

After the Armistice the Defence Department in Melbourne decided that the danger of introducing disease was too great to warrant the return of any horses to Australia, and therefore that all animals should be disposed of overseas.
The British War Office was not prepared to take over the animals of the AIF and the GHQ decided that the veterinary services should take over responsibility for the disposal of the 32,880 animals concerned.59 These were graded and the majority sold to local buyers, the balance being humanely destroyed.60

In 1916 it had been agreed that 25% of Majors of the AAVC should be promoted, and Majors T. Matson, W.A. Kendall and L.C. Whitfield were promoted to Lieutenant Colonel.61 However, there was an underlying disquiet over the issue of promotions and commendations. In their personal correspondence with the DVS, several officers commented on the idiosyncrasies of the promotion process. To an observation that "Woodruff's promotion has caused some comments: and not only in AAVC circles but in Divisional circles generally, I reserve my comment",62 Kendall replied

The promotion of Woodruff was as big a surprise to me as any one. As a matter of fact that is quite wrong. I haven't the faintest notion how it came about. His name was not submitted and he has certainly never appeared in A.I.F. Orders as promoted to Lieut-Col. The error has been pointed out to A.I.F. Hqrs, London.63

To his brother Will, he wrote

Unfortunately the Birthday allotment is generally very much smaller than New Year and there may as usual not be enough to go round. Strictly speaking the DDVS of the Corps should see that the interests of his representatives on Div. Hqrs are not overlooked but what
can you do with a chap like the one in question.64

and John Kendall to Will

I am pleased to hear your fellows are doing so well, hope Se[e]lenmeyer gets his M.C. but I dont see where you come in in regard to recommending him, for it has been plainly put to me here that I don't do any recommending - for that comes from the Brigadier under whom the VO & OC of section are. Even the DDVS of Corps cannot recommend his ADVS (as we are still designated here): we are put up by the Act.Q only to GOC and then to GHQ and then on one occasion I did do so but nothing has come of them and when one has a Chief who is one eye N.Z. there is very little hope of doing anything to suit for ours have worked like Trojans ... I guess I have a man here who can work some and I doubt if there are any others to beat him and that is Robin; he is a sniffer and does everything so thoroughly but as usual in military honors they are so often given to the wrong men, particularly in our kind of branches.65

John Kendall eventually received an O.B.E. and the DVS, Ernest Kendall, a C.M.G. In October 1919 the Secretary to the RCVS, Mr. Frederick Bullock, informed the latter that

In consideration of the conspicuous services you have rendered to the Allied Forces during the Great War, you were elected an Honorary Associate of this College.66

Even with the increasing mechanisation of armed forces, 10 MVS were formed under the reorganisation of the Commonwealth Military Forces in 1920. In 1929 the position of Director of Remounts was amalgamated with the DVS at GHQ and a year later the AAVC was authorised to issue its own distinguishing badge incorporating the winged horse, Pegasus.
Early veterinary services to the military had been very disorganised and, as was demonstrated during the Boer War, proved under-utilised and even ineffective. This had been exacerbated by tacking them onto the Remount Service under men who were totally untrained and unprepared to handle such a service. It was therefore not altogether surprising that military command, through misinformation and ignorance, undervalued the role of the veterinarians and ended up with a horrific disaster of mammoth proportions on their hands. It was no wonder that there was a public outcry in Great Britain. With the consequent reorganisation of its veterinary department, the British Army was able to integrate the corps within its own hierarchy, yet at the same time give the veterinarians autonomy to run their own outfit.

It had likewise taken some years before Australian veterinarians could consolidate their professional standing within the military organisational structure. They had voluntarily been put in the position of being answerable to the British during the Boer War, and in World War I had worked in close cooperation with them, and this no doubt went some way in raising their standing in veterinary circles in the United Kingdom and in consolidating their position in Australia. It was ironic that just when their true potential was being recognised, the change to mechanised warfare would entirely alter their function.
References

1. Robertson, op.cit., undated, pp.3 and 18.
5. Robertson, op.cit., undated.
6. Whitfield, 1951, 226; Robertson, ibid, 119.
11. Calder, op.cit., 76.
16. Letter from E.A. Kendall to Minister of Defence, 16.4.1901, Australian Archives (Victoria) MP 84/2 Captain E. Kendall, Visit to England to study the British Army Veterinary Department 1901 Item 1901/2784 Horses used in South African War.
18. He estimates there were 55 colonials, so Australia had produced nearly half of these.
21. The Council was informed by the War Office that they must await the conclusion of the war before any further consideration could be given to their case—Smith, op.cit., 1927, 205.

22. Ibid, 207.


25. An army rank which stands on its own and is on an equal footing, rather than being linked particularly to a specialist ranking; e.g. Major Smith as opposed to Veterinary Major Smith.


27. Ibid, 254.


30. Idem, 228.

31. Idem, 229: Report upon the Department of Defence, Pt.I., 1.7.1914.-30.6.1917. Government Printer, Melbourne, 314. Prior to the outbreak of war the AAVC consisted of 5 permanent PVO's and 21 Militia officers who were required to attend training camps each year.

32. Minute paper dated 20.5.13., Australian Archives (Vic), Department of the Army CRS B 1535, Correspondence files 1919-1942, 856/23/10.

33. Letter from Major A.P. Gribben dated 14.7.13. to the District Commandant, 2nd Military District drawing attention to the Veterinary Services being placed under the administration of the Director of Remounts, Written Records, file 419/98/24, Australian War Memorial (AWM).

34. Letters from Major A.B. Cory dated 1.7.16. (1st District), Lieutenant-Colonel A.P. Gribben dated 29.6.16. (2nd) and Major C.A. Loxton dated 28.6.16., Written Records, file 419/98/24, AWM.

35. Letter to the Hon. the Minister for Defence from the VBV dated 12.7.16.


38. Report upon the Department of Defence, idem, 302.


40. Cable from V.C.M. Sellheim dated 12.12.15. to Secretary for Defence, Melbourne, Written Records, file 1001/9, AWM.

41. Memorandum dated 10.2.16. from E.A. Kendall, Written Records, file 1001/9, AWM.

42. For instance, he is included with the British at a conference of senior French and British Veterinary Services held at Abbeville on 12th January 1918, Written Records, file 419/98/24, No.3, AWM.
43. Two were killed — Captains C.N. Seelenmayer and J. Ridley; H.M. Bradley died whilst on active service.

44. The mobile veterinary services were small units which acted as intermediaries between the front and the hospital. Henry allies its duties to those of a field ambulance [Henry, M. op.cit. 1929, 152].

45. Four of W.T. Kendall's five sons were veterinarians. Ernest and Will both volunteered for service in South Africa, and were joined in World War I by John. Hector stayed in the family practice in Melbourne. They also had a sister Winifred ('Sis') who also served in World War I as a nursing sister.

46. Kendall, E.A. Letter to Captain J.S. Penrose dated 3.10.17., personal correspondence file 419/98/24, AWM.

47. These War Diaries were produced in triplicate and one copy of each is deposited in the AWM. The length and detail of these reports varied, but they provide a valuable insight into the day-to-day running of a division. Those of Will Kendall and Max Henry are particularly detailed and informative, while others are more succinct.

48. Henry, M. Written Records file D1001/13/50, AWM.

49. A letter dated 13.5.18. from the Hon. W.A. Watt, Acting Prime Minister to the Hon. the Premier of New South Wales speaks "in glowing terms of the Australian horses of all services...and... that the hardships of desert travelling have proved that the Australian horse stands out as being superior to the horse of any other country". In fact this was a somewhat unrealistic claim. Henry himself pointed out from the field to the Chief Inspector of Stock (letter 6.10.18.) that certainly the horses were the equal of others, but that for sentimental reasons the units did all they could to cure them if wounded - "it is no inherent quality of the horse and if neglected he does just as badly as any animal". An unsigned letter states that rather than the Australian horses giving the 'greatest satisfaction' when shipped abroad, "only the Veterinary Service prevented it being an appalling scandal". There were undoubtedly some prejudiced and wild statements. (Written records, file 1001/33, AWM).


52. Memorandum 25.5.18. re German animals captured by the 1st Aust.Div.Hq. Ms. History, box 20/21, AWM.

53. Moore, ibid.

54. The Camel Corps presented a special problem for the veterinary services, as extremely heavy losses have been reported from previous campaigns. J. Kendall quotes one Russian campaign where one animal survived out of 12,000 — consequently a mortality of only 30%
seems quite an achievement. Surra and manage were most frequently treated. (Ms history 468, box 20/11, AWM).


57. Conversations with Mrs. Wynne Spicer, daughter of E.A. Kendall.

58. Henry, op.cit., 1931, 56-7; Kendall, J. Completion of a summary of the veterinary service, Egyptian Expeditionary Force, during the war, from the time an animal becomes a casualty until it is fit to be returned to Remounts, Ms history, DRL 6941, No. 5, AWM.

59. E.A. Kendall personal correspondence file, ibid.

60. In the Middle East there was general disquiet over selling horses to local buyers, who were considered cruel and callous to animals, and permission was obtained to have them destroyed if they could not be taken by the British (Letter from E.A. Kendall to Major-General J. Moore, DVS BEF, personal correspondence file, ibid; Fethers, G. An Elephant in my Garden: recollections of an Australian vet, Queensberry Hill Press, Melbourne, 1980, 18-20.


64. Letter from E.A. Kendall dated 15.3.18. to W.A. Kendall, personal papers of W.A. Kendall.


CHAPTER 9. SUMMARY AND DISCUSSION

The theme throughout this thesis has been the insistence by veterinary practitioners in Victoria that they considered their work was not only in the interests of good animal husbandry, but was vital to the wellbeing of the Colony, and that the quality and reputation of their labour was the result of their specific skills and training. As such, they felt, their discipline should be recognised by the public and government alike as worthy of professional status with all the responsibilities, as well as rewards, that this entails. It was thus important that in order to set them apart as a profession, legislation should recognise their special training by differentiating between those practitioners who had gained that qualification and those who were unqualified. The veterinarians based the formal structure of their profession upon the British model and succeeded in gaining all the appurtenances that align with the establishment of a profession, and distinguish it from other organisations; but it is my contention that it was only with the scientisation of the veterinary art that these Australian practitioners were able to gain a sufficiently authoritative standing in the community, based on competence and knowledge, to warrant attaining professional status in the eyes of others outside their discipline. It was at this point that the Australian veterinarians were
able to break the dependency that tied them to the Mother Country, even as they still accepted the need for cooperation within the Empire; and to establish their own identity as a force of some importance at home, and start to gain a measure of recognition overseas.

In the nineteenth century animal husbandry had been well served by a small band of men who had probably seen their role as purely that of practitioners who treated sick animals, and did the most that limited knowledge and opportunity permitted to prevent the spread of disease or entry of exotic diseases into the country. However at the end of the century a whole new world was opening up to the veterinarian. Attitudes towards disease were changing. It was now possible to pursue an intellectual examination of the course and cure of animal disease, thus helping to find out how that knowledge could assist in preventing the spread of disease and in maximising the productive efficiency of the country's animal resources. It was no longer pertinent to think of the veterinary surgeon's job as purely looking after sick animals. Indeed, in a conference address given at the University of Queensland in 1966 in which he attempted to define the role of the veterinary profession, G.R. Fallon insisted that the veterinarian's primary service was to the human population. He pointed out that the practitioner, whether in the private or public sector, communicates not with
animals but with their owners, and that it is in this social context that an assessment of the profession's decision-making and authority must be made.¹

During the period under review, despite the enthusiasm and diligence with which a few veterinarians pursued the legal and procedural ramifications of having their profession recognised in Victoria, there were enormous external pressures that had a lasting effect on the profession. Positively, there was the accommodation to the new scientific revolution, the veterinarians' participation in the Boer War and particularly World War I and the impact this made both in England and Australia within and without the profession, the efficiency of the Australian quarantine services, the importance given to animal health on the formation of the CSIR. Conversely, there was the threat posed to the well-being of veterinarians by the post-war economic recession and the introduction of motorised transport. Concomitant to these influences was the position that veterinary science would take within the framework of Imperial science and an Australian scientific culture.

The notion of Imperial science has been examined by historians of science, and the extent to which veterinary science can be integrated into this and the influence it had on the development of veterinary science as a profession, should be considered. In a wellknown
paper, George Basalla outlines a 3-tier developmental model of scientific expansion. He depicts Stage I as a voyage of discovery when the European visitor to a new land, whether trained scientist or amateur, studies and collects its flora and fauna and returns to Europe with the results of his work. As a result of observations of new and perhaps exotic species the visitor may find his beliefs and assumptions altered or transformed, and although investigations may be influenced by trade and settlement prospects, ultimately his work is related to his own scientific culture. Stage II Basalla terms a period of Colonial Science, when scientific activity increases in the new country, slowly developing an identity of its own yet still clinging to its inherited European traditions. The source of education and institutional attachment is still in the Mother Country. Working in inferior conditions and in small numbers can disadvantage and weaken scientific expertise. Colonial science is "dependent science... dependent upon an external scientific culture and yet not a fully participating member of that culture". The third and final stage is when the country begins to establish its own scientific tradition, which Basalla believes is independent of the previous metropolitan influences. This has been preceded during the transition between the second and third stages by the creation of scientific organisations and a pervading sense of nationalism.
However, whether the new tradition can ever completely divorce itself from the influence of its progenitor is questionable.

Roy MacLeod\(^4\) accuses Basalla of generalising and making unrealistic assumptions. MacLeod feels that there is a need to incorporate social, political and economic influences into this interpretation, and sees Imperial Science as taking place in a 'moving metropolis' that allows for change. He recast Basalla's model into five phases (Metropolitan, Colonial, Federative, Efficient Imperial and Empire/Commonwealth), each incorporating three 'Aspects of Scientific Practice' - institutional ethos, social/political characteristics and economic/technological functions. Barry Butcher\(^5\) believes that Basalla's model has "come to grief" and suggests that if MacLeod's view of "Science as Imperialism" is correct is might be possible to provide an explanation for the integration of science and culture. However, despite these criticisms of Basalla, his paper was an influential one and his model one on which succeeding critics could build and adapt, as well as question.

It is of little value to consider veterinary science in Australia solely in terms of developmental stages, for it must be examined in the broader context of how the profession's success was also dependent on social, political and economic factors. Certainly the
veterinarians who initially strove to have their training and expertise accepted in Australia did bring their traditional values with them, and based much of their process of planned institutionalisation on that in Britain. But it had not taken them long to realise that demand and practice were very different in Australia from the home country, and that they would have to start afresh to persuade public and government that their professional advice and expertise were needed. The shift from the position of 'colonial science' was slow, but ultimately veterinarians did succeed in gaining their own national identity. What they did not do completely, however, was to extricate themselves from the subtle influence of Mother Country. They reinforced those ties when they went to South Africa and Europe to fight for Queen/King and Empire; and again when the brightest of the veterinary students went overseas for postgraduate study, returning to Australia with the tangible benefits of acquired knowledge and the intangible influence of the bond with their host institution. The enthusiasm with which members of the profession, as well as the government, universally greeted the overseas experts, Orr and Theiler (who was, after all, the British choice for a colonial position), also reveals the desire to seek external (and in this case, Imperial) expertise. In later years veterinary science could not be divorced from imperial objectives, as its practitioners
were to benefit indirectly from Empire Marketing Board funding through their involvement in research with CSIR. It suited what Butcher describes as the British ideology of 'Imperial Vision', and at the same time enabled the veterinary profession to play a large part in strengthening the nation's pastoral economy. The antithesis was, of course, increased governmental involvement in veterinary affairs. Despite this, the members managed to keep their own professional ethos.

In the early years of 'colonial science' the practitioners who arrived from England soon found that conditions in Australia were very different from those in the home country and such that their education and experience had frequently done little to prepare them; for the veterinary surgeon was "called upon to do things here which at home he never dreamt of", "for not only do we occasionally meet with cases absolutely new to us, but frequently we come across some so widely differing from those described as to be hardly worthy of the same name". With the influx of immigrants and itinerant workers to the goldfields there were also a large number of unqualified and bogus practitioners, and even before this, in the 1840's, Gibton mentions the need for members of the RCVS to distinguish themselves in the public eye from these others. Demand for service had, however, been minimal and there were few qualified practitioners. Expenditure was
allowed on valuable horseflesh but, in the main, stock values were so low that it was felt that treatment was not warranted for them.

There were, of course, exceptions. Geoff Raby has written of the field experiments carried out by several pastoralists in New South Wales that were described in some detail at the Inquiry that was held in 1835 by Dr. George Bennett into the nature and causes of catarrh. These included autopsies to observe the physical effects of the disease, and experiments that attempted to establish whether it was contagious. Their observations led those involved to conclude that "the most effectual means of preventing the extension of the disease was the immediate separation of the healthy from the diseased animals, and the destruction of the latter". Although results varied and were at times misconstrued, these were interesting attempts by the agricultural, or pastoral, population to make a systematic and scientific examination of a problem; but they were carried out in isolation and are a clear example of what MacLeod terms colonial scientific practice. Raby uses this case to claim that veterinary science had its Australian origins at least as early as the time of this outbreak of disease in the 1830's. It is true that this may well be significant in that it provides praiseworthy evidence of an inquiry of a scientific nature, but it was not supported by educational
or technical training to facilitate problem solving and was therefore very limited in its scope. The problem was of a pastoral nature, it did not necessarily mean that the practice of dedicated science by a veterinary profession had arrived in Australia; it was merely the forerunner of things to come.

It was not until these and other, unorthodox, methods failed to bring results, and it became recognised that a certain level of expertise and knowledge would be required for successful treatment of animal disease, that a call slowly developed for services of a more professional nature. However, the demand for the services of a veterinary surgeon, that is the creation of a market, did eventually come from the agricultural sector (the National Agricultural Society), an external body that carried considerable political backing, as it had in France and England. This backing provided the impetus to legalise the formation of the profession, but did not overcome governmental indecision and sloth. From the start of opening his College, Kendall realised that if the training he offered could be recognised as an academic program offered by the University it would also be more prestigious and would therefore benefit the students' status as professionals. Likewise Kendall also insisted that practitioners should be protected by law through registration with the Veterinary Board of Victoria. This
was not only to protect his own students by making sure that their qualification was the legitimate one to be attained in Victoria, but was also to safeguard the membership of the profession. It is an example of the drive for exclusiveness and the "monopolistic advantage" that Carr-Saunders and Larson refer to.

It was also typical of the feelings within the veterinary profession that despite the wish to be recognised and accepted as part of the Empire family, the Australians wished to have their own autonomy. Although Kendall and his colleagues based their legislation upon the British Act, they placed their own interpretation upon this. Yet although they wished to be autonomous, they would have liked British approval.

Those practitioners who held membership of the London College jealously guarded their rights and were, in the main, very reluctant to admit others into their brotherhood. The immediate challenge to their authority was presented by the clause that allowed registration of non-qualified men of seven years' standing or more. This threatened the hold they wished to have over their profession, for it meant that within a few years there were sufficient registered men for the Members of the London College to find themselves in the minority. It was a short-sighted view for the number of registered men was restricted and finite, but the undignified wrangling and
acrimony between members of the Board, and between MRCVS
and Registered practitioners, was undoubtedly harmful to
the profession at a time when a dynamic and unified group
leading the decision-making would have enhanced their
respectability and standing in the pastoral, academic and
parliamentary communities as well as in the eyes of the
general public. However, as Hughes points out, acceptance
as a profession can frequently be accompanied by
conflict between different factions - in later years there
was to be resentment between the general practitioners and
members whom they considered too academically or research
oriented. This does not appear to be unusual; Larson, for
example, has noted that "conflict and struggle around
who shall be included or excluded mark the process of
internal unification of a profession". However this faction-fighting also affected the
formation of a professional association and, despite
several attempts, it was some years before one was to be
successfully organised in Victoria. It is difficult to
run either a professional association or a journal within a
restricted and small population, let alone one that is
divided both internally and geographically. As Max Henry
pointed out, one of the positive outcomes from the
contribution made by the AAAC in World War I was the
cooperation and comradeship which developed between men
from different States and this helped the profession to
think in terms of larger, national organisations.\textsuperscript{13}

A scientific journal backed by a small membership has little chance of achieving international recognition, and throughout this period (and thereafter) the most reputable journals for the Australian reader were probably the English publications. Likewise, it was (and still is) regarded as an honour to be recognised by the RCVS and the Royal Society. It was opportune and advantageous to gain additional expertise overseas, especially in prestigious establishments like the Pasteur Institute, which both Gilruth and Turner attended. This in no way should belittle the importance attached to the formation of an Australian association and journal, and the establishment of Australian undergraduate and postgraduate qualifications. The process of gaining British, let alone international, recognition for the latter was not entirely a question of educational standards and competence, but had decidedly social and political overtones. It was a time when veterinarians in England were wary of the stability of their position and many of them viewed the possibility of practitioners from the colonies coming to Great Britain as a distinct threat to their own living, however unlikely this might be. Even their agreement, as a temporary measure, to let members of the AAVC who had served during World War I sit for their membership was most reluctantly given. During the period when Sir John Mcfadyean was the
most powerful and influential member of the College, his comments were unfailingly deprecatory and rejecting of the colonial qualifications.

Some Members of the London College, with their own standards and sets of rules, migrated to the colony of Victoria, and there proceeded to practise their chosen profession in their new home. Jealously guarding their self-perceived superiority, they were joined by a fresh breed of practitioners - not only the registered men but those trained in Victoria. These young Victorian graduates wished to have their qualifications accepted on an equal footing with those in Great Britain and ultimately, in the years after World War I to have their scientific endeavour recognised as belonging to the world of Metropolitan science, instead of merely as a product of a lesser science, that is, of Colonial science. The British attitude was condescendingly paternalistic and, despite inconclusive comparisons, repeatedly insisted that the Victorian qualification was inferior. Not only failing to take the opportunity to extend their influence over their colonial brothers, they actually discouraged such links and accentuated the Australians' isolation. It was a total rejection, at this time, of the opportunity to embrace unity, and resulted in a mistrust of the British that was felt for many years amongst the Australian profession and led, if anything, to a more determined
application to original veterinary scientific research under conditions indigenous to Australia.

Strong imperial ties however, fostered the Australian response to the call to aid England during the Boer War. Australian veterinarians joined up and were assimilated into the British forces, working under them as part of their organisation. In World War I, however, the AAVC worked as an independent unit within the BEF. It was the British who requested Ernest Kendall's secondment to their HQ and the relationship seemed to have been a harmonious one.

England may not have imposed its conditions and ideals on veterinary science in Australia - in fact, the Mother country showed not the slightest interest in the early struggles of the profession there - but veterinary science ultimately did develop a political and economic role that was accentuated by the ties that existed within the Empire.

It was fortunate for Australian veterinarians that Britain was interested in the primary industries of Australia. It meant that at a time when there was very little financial backing for veterinary research from any local sources, the British were willing to underwrite Australian research efforts for the sake of their own interests. The establishment of the CSIR and the decision of the Empire Marketing Board to invest in Australian
primary production hastened the formation of the Council's Division of Animal Health. L.S. Amery, the British Colonial Secretary, was a keen advocate of partnership and cooperation within the Empire, and consequently of the vision of Imperial science. He recommended Theiler for the position of Director of the Division, a decision enthusiastically endorsed by both Rivett and Richardson.

An important feature of the CSIR was its involvement with the Imperial aspects of science for, as Boris Schedvin points out, it enabled it to become the focus for Australia's contribution to imperial research collaboration. However, Rivett made it clear that he did not wish the CSIR to become dependent on Britain, nor the Australian scientists to act as mere junior technicians carrying out merely routine work. He realised that it was vital that the CSIR built up its own standards of research by working in the most advanced fields that it could, even though this should not rule out cooperation between scientists in different parts of the Empire. Workers in the animal health field owed much to this philosophy, for with the help of the CSIR, scientific investigation into areas vital to an increasing world-wide market led to the development at this time of veterinary research as an important, viable force. In a letter to F.L. McDougall, who represented the CSIR in London, Rivett wrote
regarding the Animal Health Division... [Orr] thinks that our fundamental problems might very well be referred to laboratories in England, Scotland, or elsewhere, and that we should concentrate upon the application of their results...if we make it a practice...we shall run the risk of definitely lowering the standard of ability in our own workers... It will never do for us to hand over fundamental problems to Britain. We must let our own men try their teeth on them since only in that way can they themselves reach a high level of efficiency.18

Rivett's view was in line with the nationalistic ideals that were surfacing at the time and yet managed to run parallel to the spirit of imperialism. It was an example of what MacLeod terms "defensive imperialism" rather than the full-blown and trusting "imperial unity" that could follow with newly established self-confidence.

At a time when the importance of scientific research in agriculture and primary production was being accepted generally by government and public alike, the orientation of veterinary education had been moving to accommodate new scientific advances, and this served to alter the role of the veterinarian.

In the year that Kendall established his College, he and Graham Mitchell attended the demonstration of the use of vaccine in Junee carried out by Pasteur's representatives, and they immediately began cultivating lymph for the inoculation of cattle in Victoria. Kendall had prided himself on the curriculum at the MVC and had
included pathology and bacteriology as examinable subjects, however it was Gilruth who revolutionised teaching in veterinary science when he took on the chair of the new department at the University of Melbourne. Not only did he revise the undergraduate syllabus, he also encouraged his brightest students to take up postgraduate research. He had the added advantage here of having a research institute attached to his department. By this time attitudes towards disease investigation and veterinary advice had changed markedly. There were outbreaks of contagious diseases and because of the increasing movement of stock and size of herd this posed greater problems and higher losses. Government departments were seeking veterinary services and stockowners wanted advice. With the advent of scientific diagnostic methods and the recognition that the trained veterinarian was capable of performing a unique service in the community, the profession's role was gradually becoming acknowledged by the pastoralists.

However, routine diagnostic testing was not sufficient on its own. More important was the search for methods of preventing the spread of disease and improvement in the health of animals through good nutrition. There was also the issue of animal disease transmissible to man, and these aspects of veterinary science could only be successfully handled by an expanding program of scientific research.
This was all the more important because many of the problems were peculiar to Australia. As Ian Clunies Ross, Chairman of CSIRO, declared:

It is doubtful if any other group of research workers of comparable size anywhere in the world has made a greater contribution to the well-being of the livestock industries of their country.\(^\text{16}\)

However, funding of research was to be a continual problem. In 1926 Professor J.D. Stewart gave the presidential address to the Veterinary Science Section at the eighteenth meeting of AAAS. Probably echoing the thoughts of many other scientific leaders in their particular fields, he pointed out that Australia lagged seriously behind other countries in the poor research facilities that were available for veterinary scientists.\(^\text{17}\) Both Stewart and Theiler were insistent on the need for increased funding for research and expanded facilities. Alas, in the light of government cutbacks during the economic recession, their recommendations were not to be met, despite the importance being attributed to Animal Health.

The closure of the University of Melbourne school was an enormous disappointment that is still felt with sorrow by older members of the profession. Yet despite this blow, the services of the veterinary scientist and of the practitioner in government service were still in demand and recognised as vital to the stability of a pastoral
Breeding champions and working with the racing establishment was a lucrative and high status occupation, but the majority of practitioners in private practice faced a reduction in demand at a time when mechanisation was taking over from the horse in transport and on the land; however attitudes towards domestic pets were changing and some veterinarians could diversify by taking on such tasks as milk testing. The work of the general practitioner and of the man in government or corporate employment were frequently to overlap, with the recognition that cooperation in the prevention of disease by such measures as quarantine, inoculation and improvement in nutrition was central to the wellbeing of a country that relied on its agricultural sector. Accelerated programs for the examination of meat and dairy products helped to raise the country's standards of health and to ensure the quality of the produce. It was encouraging to those involved that the pastoralists, the medical fraternity and even the military had recognised that veterinarians had an important role to perform; in fact, they were reliant on the veterinarians' services to help their own performance.

In order to keep up with general demand and new technology, veterinary education had had to incorporate new scientific knowledge into its curriculum, and to encourage postgraduate students to pursue original research. In this the profession seems to have been more than
successful; some of the research, for instance that of Seddon and Turner, was of the highest standard and represented important breakthroughs. Both Theiler and Orr were impressed by the work that they found being done and Seddon's account of the International Veterinary Congress that he attended in London in 1930 makes it clear that Australian scientists were well up with current trends and in some cases ahead of other countries.\textsuperscript{18} After the formation of the CSIR, research became oriented towards improving productivity as well as reducing losses through disease prevention, rather than acting simply as a diagnostic tool, and this emphasis was indicative too of the drive towards increased markets and a healthier economy. New methods of stock management by increasing concentration and turnover also enhanced the risk of spreading disease, hence the importance of inoculation, and of the educational programs run by veterinarians for the agricultural sector, such as the Better Farming Trains and instruction for the extension services of the Department of Agriculture.

Conclusion

At the end of the Introduction, a number of questions were put which encapsulated the purpose of this thesis. These tended to revolve around the role that the veterinary profession carved for itself in Victoria. Even though the
veterinarians succeeded in getting legislation introduced which validated their formal position, this alone was not sufficient to ensure their being recognised by the wider community, nor did it lead to a market for their services. A viable profession is one whose services are needed and which can shape its activities to meet this role, and to succeed in attaining this, veterinarians had to mould their image to meet the changing demands of society.

In the nineteenth century and the years prior to World War I there was a need for someone to look after the sick animal, particularly the horse. It was the task of the veterinarian to prove that this person should be a qualified practitioner, and not a charlatan or purveyor of quack medicines. Later a worldwide economic recession made it difficult for veterinarians to make a living (this having been exacerbated by technical progress and the age of mechanisation) and restricted their research horizons. In addition, the internal stresses within their group did little to strengthen the veterinarians' public image. It was all the more crucial therefore, that they should remedy this and find their own identity and, what is more, feel comfortable with it.

Veterinarians had to rely increasingly on the agricultural sector, having to persuade pastoralists that veterinary services were necessary to animal health.
At face value, veterinarians did offer a practical and valuable service. Both Kendall and the University of Melbourne went to some lengths to provide a sound training of sufficient intellectual standard to prepare young practitioners for active work within the community, or for research work that would lead to breakthroughs in the prevention, diagnosis and treatment of animal disease. But the veterinarians were not necessarily a united body. In the confines of AVA meetings there was serious questioning as to whether the right students were being picked to do veterinary science, and whether their training did prepare them adequately for their own and the community's future. Certainly the closure of the University Department was a great blow and led to some gloomy prophecies not only about the lack of sufficient support for the profession, but also of the place that the veterinarian could aspire to in those times of great stringency and competition.

However, these dismal prognostications were not entirely justified. Men of Gilruth's and Bull's calibre realised that the new role of the veterinarian as a scientist could not only make a valuable contribution to the country's welfare and economy, but would also enhance the veterinarian's standing in the public eye. In turn, this would ultimately stimulate demand in the private sector.
It led also to an increase in the number serving in government agencies where much valuable work was being carried out, and although there were some successful and popular practitioners in private practice, those veterinarians in corporate employ improved the profession’s image by extending the range and volume of its activities. The high standard of veterinary research and the success of some of the public programs (for instance, activities designed for the farming community, the quarantine services and the AAVC), coupled with the ability to diversify and adapt in tune with the changing fortunes of the country, eventually ensured the success of veterinary science as a professional body. The veterinarian had managed to work harmoniously alongside other professionals and this also had helped to endow the profession with the authority to make valuable recommendations to government.

To William Tyson Kendall and Graham Mitchell must go the credit for the legal establishment of the veterinary profession in Victoria together with the opening of a school for training future practitioners. The measure of their success in having veterinary science accepted by society lay, though, in proving that veterinarians were able to offer a valuable and necessary service to the country which no others could provide satisfactorily.
Sir Arnold Theiler later put this need succinctly: "Animal health is national wealth". Kendall and his successors ensured that their profession won acceptance and was able to put this maxim to good effect.
References


3. Ibid, 613.


8. Ibid, 318.


10. Ibid, 192.

11. Hughes, op.cit., 661.

12. Larson, op.cit., xii.


20. Theiler, op.cit., 63.
APPENDIX 1

VICTORIA.

ANNO QUINQUAGESIMO PRIMO

VICTORIAE REGINAE.

No. DCCCCLVI.

An Act to establish a Veterinary Board and to regulate Veterinary Practice in Victoria.

[17th December 1887.]

Whereas it is expedient that provision be made to enable persons requiring the aid of a veterinary surgeon for the cure or prevention of diseases or injuries to horses or other animals to distinguish between qualified and unqualified practitioners: Be it therefore enacted by the Queen's Most Excellent Majesty by and with the advice and consent of the Legislative Council and the Legislative Assembly of Victoria in this present Parliament assembled and by the authority of the same as follows (that is to say):

1. This Act may for all purposes be cited as "The Veterinary Surgeons Act 1887," and shall come into operation on the first day of January in the year of our Lord One thousand eight hundred and eighty-eight, which date is hereinafter referred to as "the commencement of this Act."

2. The sections of this Act are arranged in Parts as follows:
   - PART I.—The Veterinary Board of Victoria.
   - PART II.—The Veterinary Register of Victoria.
   - PART III.—Registered Veterinary Surgeons.
   - PART IV.—Miscellaneous.

3. In published as a Supplement to the 'Victoria Government Gazette' of Friday, 16th December 1887.

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3. In this Act, unless inconsistent with the subject-matter or context, the following terms shall have the meanings hereinafter respectively assigned to them (that is to say):—

"Veterinary surgery" shall mean the art and science of veterinary surgery and medicine.

"Registered veterinary surgeon" shall mean a person whose name appears in the Veterinary Register of Victoria, prepared in pursuance of the provisions of this Act.

PART I.—THE VETERINARY BOARD OF VICTORIA.

4. The Governor in Council may appoint a Board consisting of not less than five and not more than seven members under the style of "The Veterinary Board of Victoria" hereinafter in this Act termed the Board.

5. No person shall be appointed or elected president or member of the Board for more than three years, but any person appointed or elected a member of the Board shall upon the expiration of the term for which he was so appointed or elected be eligible for re-appointment or re-election. The Governor in Council may from time to time remove the president or any member of the Board.

6. A quorum of the Board shall consist of not less than three members thereof. In the absence of the president from any meeting of the Board one of the members present shall be elected chairman of that meeting.

7. The first members of the Board including the president shall be appointed by the Governor in Council without previous election for a period of three years. Provided that no person shall be so appointed who does not appear to be eligible for registration as a veterinary surgeon of the United Kingdom under the Act of the Imperial Parliament known as "The Veterinary Surgeons Act 1881." If any vacancy occur in the office of member of the Board during the period for which the first members of the Board are appointed the Governor in Council may fill such vacancy by appointing without previous election any registered veterinary surgeon; and the person so appointed shall hold office until the expiration of three years from the date of the appointment of such first members and no longer.

8. On the expiration of the period for which such first members are appointed to hold office no person shall be eligible to be appointed a member of the Board unless he be a registered veterinary surgeon nor unless he have been elected to act as a member of the Board by the registered veterinary surgeons; and no person shall be appointed president unless he be a member of the Board and have been elected by the other members thereof to act as president. Every election of a person to act as a member of the Board shall be held in the manner prescribed by regulations to be made by the Board subject to the approval of the Governor in Council.
9. The Board may from time to time appoint a registrar and any other officer or officers whom they may require for the purpose of carrying out this Act and shall have power to remove the same at any time.

10. The Board may with the approval of the Governor in Council from time to time make alter or rescind any regulations for the purpose of carrying this Act into effect. Such regulations shall not have any effect if they be repugnant to any law in force in Victoria or to the provisions of this Act nor until they have been confirmed by the Governor in Council and published in the Government Gazette.

11. The Board may examine upon oath any person who attends before it or take a solemn declaration from any such person; and if any person wilfully knowingly or corruptly make any false statement upon such examination or in such declaration or utter or attempt to utter or put off as true before the Board any false forged or counterfeited diploma degree licence certificate or other document or writing, he shall be guilty of a misdemeanour, and being thereof duly convicted shall be liable to be imprisoned for any period not exceeding one year.

12. The president of the Board may by writing under his hand summon any person to attend before the Board for the purpose of being examined with respect to matters within the jurisdiction of the Board, and every person duly summoned as aforesaid who does not attend after reasonable expenses have been paid or tendered to him or attending refuses to be sworn or to make a solemn declaration or who refuses to be examined or to give evidence or to answer all such questions as the Board may legally ask of him shall incur a penalty not exceeding Five pounds.

PART II.—THE VETERINARY REGISTER OF VICTORIA.

13. The Board shall from time to time cause the names of all persons certified by the Board as duly qualified for registration as registered veterinary surgeons to be registered together with their respective places of residence and a description of their respective qualifications in a book or register to be kept by the Board for that purpose in the form in the First Schedule hereto or to the like effect, and such register shall be called "The Veterinary Register of Victoria." Any person so registered so long as his name continues to be enrolled in such register may be described in any Act of Parliament or in any regulations as a "Registered Veterinary Surgeon."

14. Before examination or registration under this Act such fees shall be payable as are set out in the Second Schedule hereto or such other fees as may from time to time be fixed and determined by any regulation made by the Board in accordance with this Act, and the said fees shall be paid to the registrar of the Board for the purposes of this Act.

15. The
15. The Board may from time to time make the necessary alterations in the registration of the place of residence and qualifications of any registered veterinary surgeon, and may from time to time write or cause to be written a letter to such registered veterinary surgeon addressed to him at his last known address to inquire whether he has changed his place of residence. If no answer be returned to such letter within a period of six months from the sending thereof, the Board may erase the name of such registered veterinary surgeon from the Veterinary Register of Victoria, but may restore his name to the said register upon his personal application and the production of satisfactory proof of his former registration.

16. Every registered veterinary surgeon on changing his place of residence shall give notice thereof to the Board. Every deputy registrar appointed under "The Registration of Births Deaths and Marriages Statute 1885" or any Act amending the same upon receiving information of the death of any registered veterinary surgeon shall forthwith transmit notice thereof by post to the president of the Board, and upon receipt of such notice the president shall cause the name of such veterinary surgeon to be erased from the Veterinary Register of Victoria; and every such deputy registrar failing to transmit such notice as aforesaid within two months from the date of his receiving information of any such death shall be liable on conviction to a penalty not exceeding Five pounds.

17. If any person have been convicted of any offence or of any felony or misdemeanor which in the opinion of the Board renders it unfit that his name should be on the Veterinary Register of Victoria, the Board may subject to the approval of the Governor in Council refuse to register the name of such person under this Act or in the event of such person being registered at the time of such conviction may cause the name of such person to be erased from the register, and upon such erasure such person shall cease to be a registered veterinary surgeon."

18. The Board shall in the month of January in each year cause to be printed published and sold a correct list of the names of all registered veterinary surgeons, and in every such list the names shall be in alphabetical order according to their surnames, with the respective places of residence of such veterinary surgeons; and such printed lists shall be called "The Veterinary List of Victoria for 18..." followed by the number of the year in which it is published.

19. A printed copy of such list for the time being purporting to be so printed and published as aforesaid or a copy of the Government Gazette purporting to contain any regulation made by the Board shall be prima facie evidence in all courts of justice and in all legal proceedings whatsoever that the persons specified in such printed list are registered veterinary surgeons duly registered according to the provisions of
of this Act or that such regulation is duly made (as the case may be); and the absence of the name of any person from such printed list for the time being shall be evidence until the contrary is made to appear that such person is not a registered veterinary surgeon.

PART III.—REGISTERED VETERINARY SURGEONS.

20. No person shall receive from the Board a certificate that he is duly qualified for registration as a registered veterinary surgeon unless he have attained the age of twenty-one years, and—

(1.) Unless he hold a certificate or diploma of competency as a veterinary surgeon from the Royal College of Veterinary Surgeons of Great Britain or from any veterinary school or college recognised by the Board under the regulations made under this Act; or unless he have been continuously practising in Victoria as a veterinary surgeon throughout the seven years immediately preceding the commencement of this Act; or

(2.) Unless he have been a veterinary student for not less than four years at some school or college recognised by the Board, and have passed an examination in each of the following subjects before the Board or before examiners appointed by the Board; and such examinations shall include the following subjects:—

- Materia Medica
- Pharmacy
- Medical Botany
- Practical Chemistry
- Toxicology
- Anatomy of the Horse and other Domesticated Animals
- Physiology and Histology
- Morbid Anatomy
- Pathology and Pathological Toxicology
- Diseases of the Horse and other Domesticated Animals
- Veterinary Medicine and Surgery
- Therapeutics,

together with any subject bearing upon veterinary practice which may have been prescribed by the Board with the approval of the Governor in Council. The Board shall grant a diploma to such students as pass such an examination.

21. The Board shall have power to control and direct all examinations in veterinary surgery and medicine and such other subjects relating to veterinary practice as may from time to time be approved of by the Governor in Council and specified in regulations made by the Board. The Board may grant or refuse to such persons certificates of competency skill knowledge and qualifications to exercise the profession of veterinary surgeon. In the case of rejection a rejected candidate may present himself for re-examination after a period of three months has elapsed.
22. The Board shall permit any person appointed by the Governor in Council to be present during the progress of any examination held under this Act.

23. It shall not be lawful for any person unless registered under this Act to pretend to be or take or use the name of veterinary surgeon or veterinary practitioner or use the term "veterinary" in connexion with any other name or business, or to use any other name, title, addition or description by means of initials or letters placed after his name or otherwise stating or implying that he is a fellow member, graduate or licentiate of any veterinary school or college unless he has proved to the satisfaction of the Board that he is entitled to such name, letter or description. Every unregistered person so offending shall forfeit and pay a sum not exceeding Fifty pounds, to be recovered in a summary manner before any two justices of the peace by any person suing for the same in any Court of Petty Sessions; provided that any person who feels himself aggrieved by any such conviction or order of justices may appeal therefrom to the next Court of General Sessions of the Peace, in accordance with the law for the time being in force relating to appeals from justices to Courts of General Sessions of the Peace.

24. Every registered veterinary surgeon shall be entitled to sue in any court of competent jurisdiction for his fees and charges for veterinary services, attendance or advice rendered by him and also any medicines supplied by him for veterinary purposes. And no person shall be entitled to recover in any court of law any fee or charge for performing any veterinary operation or for giving any veterinary attendance or advice or for acting in any manner as a veterinary surgeon or practitioner or for practising in any case veterinary surgery or any branch thereof unless he be registered in accordance with the provisions of this Act.

25. The application of every person who applies for a certificate of qualification from the Board as the holder of a certificate or diploma of competency from the Royal College of Veterinary Surgeons of Great Britain or any veterinary school or college duly recognised by the Board in accordance with this Act shall be accompanied by the certificate or diploma on which he bases his application together with the declaration in the form in the Third Schedule hereto.

PART IV.—MISCELLANEOUS.

26. Nothing herein contained shall extend to or interfere with the business or with the rights and privileges of any registered pharmaceutical chemist in supplying drugs in the ordinary course of such business nor with the business of wholesale druggists.

27. Any
27. Any deputy registrar or other person who wilfully makes or causes to be made any falsification in any matter relating to the Veterinary Register of Victoria and any person who wilfully procures or attempts to procure himself to be registered under this Act by making or producing or causing to be made or produced any false or fraudulent declaration certificate or representation either verbally or in writing, and any person aiding or assisting therein, shall be deemed guilty of a misdemeanour and shall on conviction be liable to a penalty not exceeding Twenty pounds and to imprisonment for any term not exceeding six months.

28. If after the expiration of a period of six months from the date of the first appointment of the Board any person not being a registered veterinary surgeon under this Act practices or attempts to practice as a veterinary surgeon, or offends against the provisions of this Act or any regulations made hereunder, shall on conviction thereof be liable to a penalty of not exceeding Ten pounds for each offence, and in addition to imprisonment for any period not exceeding three months.

Nothing in this Act shall prevent any person from being liable to any other penalty damages or punishment to which he would have been liable if this Act had not been passed.

29. All offences under this Act shall be heard and determined and all penalties imposed by this Act shall be recovered in a summary manner before any two or more justices, and all penalties when recovered shall be paid to the Board to be applied towards the expenses of carrying this Act into effect.

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APPENDIX 3:

The Veterinary Board of Victoria,
extract from Minutes of Meeting
15.10.1889.
APPENDIX 3

In the local paper when any person in a district is found to be infringing the act. — Carried.

Notice of Motion given by Mr. Shaw at the last Meeting. "That Mr. W. J. White of Prowman, be appointed to the Board of Directors of the Melbourne Veterinary College."

Notice of Motion lodged by Mr. Kendall, with the Registrar on the 7th inst.

Proposed by Mr. Martin

Seconded by Mr. Martin — That the Motion be postponed to the next meeting of the Board.

Notice of Motion lodged by Mr. Kendall with the Registrar on the 7th inst.

Proposed by Mr. Kendall

Seconded by Mr. Kendall — That the Melbourne Veterinary College be recognised by the Veterinary Board of Victoria, until 1st January, 1887, according to the Veterinary Surgeons Act 1887. The regulations made thereunder as a school or college duly recognised within the meaning of Section 26 of the Veterinary Surgeons 1887.

The letter from the Minister of Agriculture re Mr. Kendall’s School was then dealt with.

Proposed by Kendall (Mr.)

Seconded by Mr. Aird — That in reply to the first two questions be answered in the affirmative by the Board. — Carried.

Proposed by Mr. Kendall

Seconded by Mr. Aird — That in reply to the third question in the letter, the Board will reconsider the question of recognising Mr. Kendall’s School at their next meeting. — Carried.

Tale of Thanks to Mr. Kendall — Meeting then adjourned.

Confirmed

Melbourne

20 Nov. 1889.

Henry Cross
Chairman
APPENDIX 4:

The Veterinary Board of Victoria

Extract from Minutes of meeting

19.2.1890.
APPENDIX 4

be dispensed with. Carried unanimously.
Proposed by Mr. Aird.
Seconded by Mr. Snowball.

That—Mr. Aird be appointed Registrar.
Carried unanimously.
Moved by Mr. Snowball.
Seconded by Mr. Kendall.

That—if the President fail to put motion which have been proposed and seconded a mandamus be applied for, to compel him to do so, according to law—
Carried unanimously.
Proposed by Mr. Snowball.
Seconded by Mr. Aird.

That—a special enquiry be made into the registration of persons registered at the December meeting 1889—
Carried unanimously.
Proposed by Mr. Kendall.
Seconded by Mr. Aird.

That—the Veterinary List for 1890 be issued like the Veterinary Register of Great Britain, with date of diploma and name of College after each name, and that registered practitioners be placed in a List by themselves with date of their registrations—Carried unanimously.
Proposed by Mr. Snowball.
Seconded by Mr. Aird.

That—the Melbourne Veterinary College at Brunswick St., Fitzroy, be recognized by the Board, under Subsection II, Clause 20, part III of the Act—
Carried unanimously.
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