



HIGHLIGHTS OF THE COLLECTION

MEDICAL HISTORY MUSEUM



UNIVERSITY OF MELBOURNE



This book presents fifty specially selected items from a collection totalling more than 6000 pieces and representing some four centuries of Western medical history. It gathers together leaders in medical practice, research, teaching and related disciplines to bring to light the fascinating stories and people behind each unique artefact. In this way the book reveals the breadth and depth of the Medical History Museum Collection and hopefully will generate wider curiosity and interest.

The publication of this volume celebrates the sesquicentenary of the founding of the Melbourne Medical School in 1862.



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UNIVERSITY OF MELBOURNE

EDITED BY JACQUELINE HEALY

MEDICAL HISTORY MUSEUM, UNIVERSITY OF MELBOURNE

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Melbourne Medical School, 1864; photograph; image: 14.1 x 20.0 cm; mount: 17.0 x 22.2 cm

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FOREWORD

Acknowledging the significance of the Medical History Museum and its collection through the publication of this highlights catalogue is a key element of celebrations surrounding the 150th anniversary of the Melbourne Medical School at the University of Melbourne.

Established by a grant from the Wellcome Trust, the Medical History Museum opened in April 1967. It is an important collection in the Faculty of Medicine, Dentistry and Health Sciences, comprising over 6000 items covering the history of the Melbourne Medical School and the broader history of medicine in Australia and overseas.

This publication brings together prominent members of the medical profession, other related disciplines and medical historians who have written on fifty items in the collection. Contributions from the founder of the Medical History Museum and inaugural curator, the late Professor Emeritus Kenneth F Russell (1911–1987), and his successor Professor Emeritus Harold Attwood (1928–2005), have also been included through extracts from their publications.

Items featuring in the catalogue have been selected to represent key aspects of the collection—from Roman surgical instruments to memorabilia from the Medical Students Society—reflecting its breadth and diversity. The Medical History Museum Collection has continued to grow due to the generosity of benefactors associated with the Melbourne Medical School. Major gifts from the Wellcome Institute, the Australian Medical Association Victoria, the estate of Graham Roseby, Sir Russell and Lady Grimwade, Professor Carl de Gruchy and his sister Denise de Gruchy, medical alumni, their families and many others have been crucial in building this valuable historical and cultural resource.

I thank all the authors for their contributions to this anniversary publication. I also sincerely thank our many benefactors for supporting this very special collection at the University of Melbourne that celebrates and documents the rich legacy of medical history.

Professor James A Angus, AO

Dean, Faculty of Medicine, Dentistry and Health Sciences

Past and present deans of the faculty, and hospital buildings, 1898, Rae Bros Photo-Process House; print on paper; 24.5 x 19.2 cm



THE MEDICAL HISTORY MUSEUM: A COLLECTION ON THE MOVE

In 2012 Melbourne Medical School celebrates 150 years since its establishment in 1862. Vice-chancellor Anthony Colling Brownless, a person of great vision, was determined that the medical program at the University of Melbourne would be a rigorous five-year course, with standards higher than equivalent training in any medical school in Britain. After consulting with Sir James Paget in London, Brownless developed an initial proposal in 1857; however, it took five years of determined negotiations to secure the school's modest beginning, without its own premises or professor. When George Britton Halford commenced in 1863 as professor of anatomy, physiology and pathology, classes were held in a shed erected at the back of his private rooms. Photographs of the early Medical School, Brownless in academic robes and Halford's dissection class and associated material are all part of the Medical History Museum Collection. So it is most fitting that the museum play an intrinsic part in celebrating this major anniversary, hosting two major exhibitions and producing a catalogue on the highlights of the collection.

Over the years many people have assisted in the establishment and development of the Medical History Museum and its collection. It was Professor Kenneth Russell's passion for medical history that resulted in the establishment of the museum in 1967 with the support of a grant from the Wellcome Institute. As head of the Department of Medical History, Professor Russell was responsible for the museum until 1981. During this time a major donation by the Wellcome Institute of the Savory and Moore pharmacy from London was installed in the museum in 1971. For the next sixteen years Professor Harold Attwood was curator; he further developed the collection through donations and like Russell wrote extensively on the history of medicine. The following decade emphasised the cataloguing and display of the collection. Lisl Bladin (1997–2001) then Ann Brothers (2001–09) systematically catalogued and digitised the collection and produced a comprehensive exhibition program. More recently Susie Shears (2009–11) transferred the catalogue to a state-of-the-art web-based system. The database will go online in June 2012 as part of the 150th anniversary calendar of events, providing improved access to the Medical History Museum Collection. The current curator, Jacqueline Healy, was appointed in October 2011 and this catalogue is her initiative.

Thomas H Maguire, **Anthony Colling Brownless**, 1850; lithograph on paper; 36.9 x 29.0 cm. Gift of Mrs Andrea J Brownless, 1969

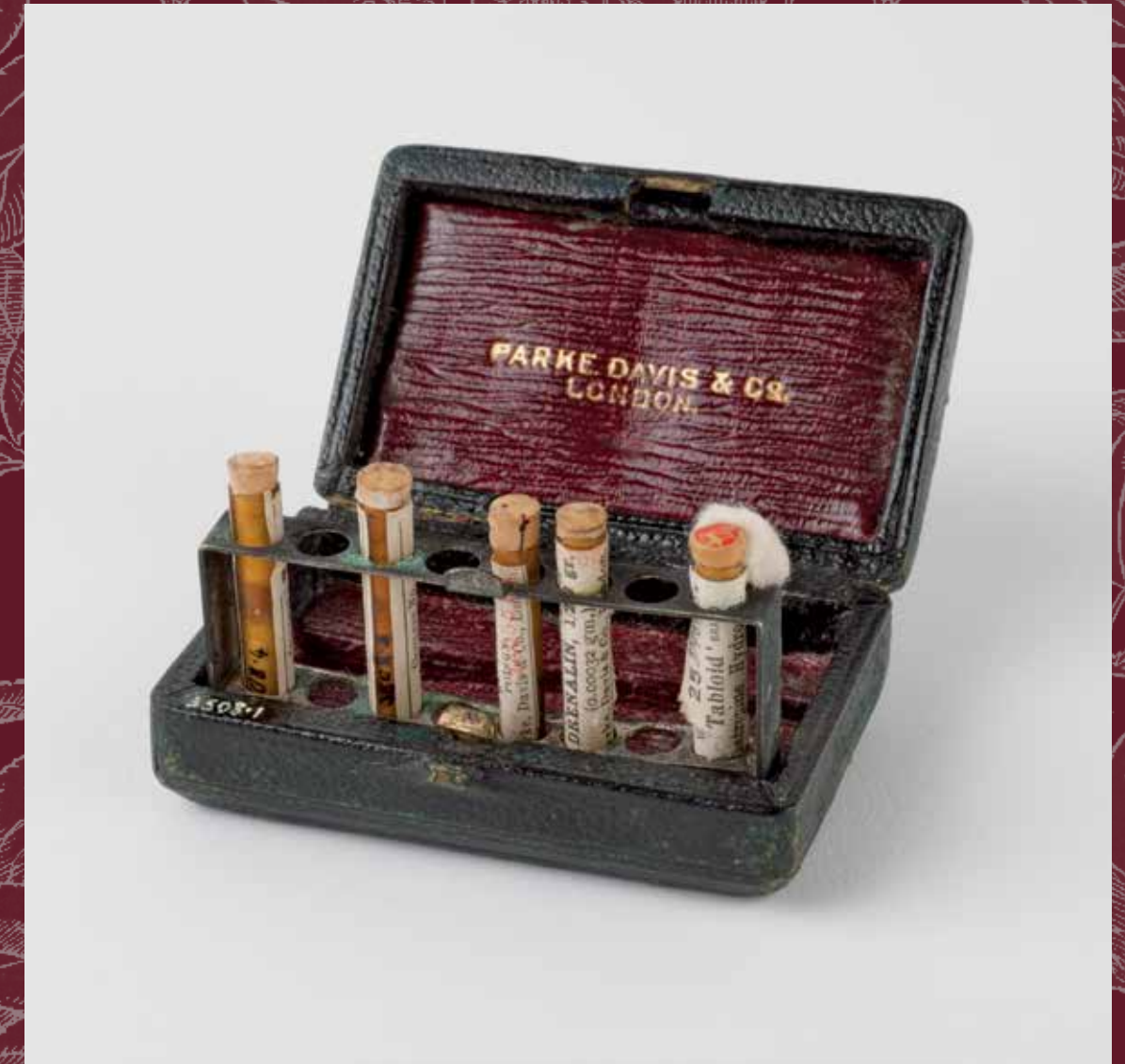
The next stage of the museum will be its relocation to the ground floor of the Medical School Building to increase accessibility to students, staff and the general public. This move will enable the display of more of the collection and will enhance the involvement of our students in the study of medical history. This exciting development will happen in 2013.

The Medical History Museum and collection would not exist without the foresight and generosity of donors. The initial grant of funds from the Wellcome Institute and gift of the Savory and Moore pharmacy installed with funds from a private benefactor were pivotal contributions. The Australian Medical Association Victoria Collection was loaned to the University when the association's own museum closed in 1994. This collection was formally donated in 2011, greatly enhancing the Medical History Museum's historical material. Many alumni of the Melbourne Medical School, and others, have contributed material to the collection, greatly enriching its significance.

I take this opportunity to thank all the donors to the Medical History Museum. I also thank the many distinguished contributors to this catalogue, from the medical profession and other disciplines. I am sure you will enjoy this insight into the highlights of this intriguing collection.

Professor James D Best

Head of the Melbourne Medical School



Parke Davis & Co., **Tubes of tabloids in case**; metal, glass, paper, cork, cottonwool, wood, leather, gilt and brass; 5.9 x 3.8 x 2.1 cm. Gift of Dame Annie Jean Macnamara, DBE

HIGHLIGHTS OF THE MEDICAL HISTORY MUSEUM COLLECTION

It is a challenging task choosing fifty items from a collection consisting of over 6000 pieces covering more than 400 years of Western medical history. This selection makes no attempt to be comprehensive but relies on key items to generate wider curiosity and interest. Some of the items celebrate major examples of human endeavour and scientific discovery. Others appear so mundane or ordinary that they might normally be overlooked. Yet their distinct provenances all enrich our knowledge of medical history.

The Medical History Museum's purpose is 'to encourage appreciation and understanding of the history of medicine and its role in society through direct engagement with the collections. The museum stimulates active learning about the history of medicine through research, teaching, and dialogue among communities of students, faculty, scholars, alumni and the wider public.' Since its inception in 1967, the Medical History Museum has developed a diverse and varied collection encompassing documents, photographs, artefacts, ceremonial objects, medical and scientific equipment and associated research material. It has grown through gifts from graduates, families and institutions. The core of the collection relates to the history of the Melbourne Medical School but has expanded to encompass the history of medicine in Victoria, Australia and internationally. This catalogue brings together leaders in medical and related disciplines to write about fifty items, revealing the breadth and depth of material in the collection.

The photographic collection encompasses some of the first photographs taken at the University of Melbourne, including its founding professors, buildings, clinical schools and students. The earliest photograph of the Medical School was taken in 1864, showing students in the anatomy dissecting room working under the supervision of Professor George Britton Halford (1824–1910) (cat. 3). There are also pictures of medical students from 1877 to 1931, revealing the changing profile of the student population and the teaching hospitals (page 4). Significant images include William Carey Rees, one of the first three medical students in 1862 (cat. 6) and the first women, admitted in 1887 (cat. 7). As well, there is a poignant portrait in military uniform of Gordon Clunes McKay Mathison, appointed as the first director of the Walter and Eliza Hall Institute of Medical Research but never taking up the post, dying in 1915 from war wounds (cat. 21). Other photographs capture activities in the broader community; for instance a rare image shows a mock field hospital set up at Seymour in 1910 (cat. 20).

The history of medical practice in Victoria is a major theme. There are documents, diplomas, illuminated addresses and other records that reveal the efforts of physicians



and surgeons to provide a medical service in Victoria's early colonial days, before the establishment of the Melbourne Medical School. Of national heritage significance is the petition from physicians, surgeons and apothecaries practising in the Port Phillip District in about 1842, addressed to the Governor of New South Wales and requesting the formation of a Medical Board of Victoria (cat. 11). A certificate of registration from the Medical Board of Victoria for Isaac Wallace dated 1864 (cat. 13) shows their endeavours were not in vain. At this stage many doctors were trained overseas. A hospital admission ticket issued at the Royal Infirmary in Edinburgh (cat. 14) shows the daily life of a medical student in the nineteenth century. Much of this documentation was part of a loan to the University in 1994 of the Australian Medical Association Victoria Collection, which in 2011 was generously donated to the Medical History Museum. A silver clock inscribed 'To Dr. A.E. Rowden White. From two grateful patients ...' was presented to the Medical History Museum by the AMA to commemorate the occasion (cat. 10).

Other documents and commemorative items show the respect and esteem in which leading academics and practitioners were held. A stunning example is an illuminated address for Harry Brookes Allen (1854–1926), the first Melbourne graduate to be awarded a professorship in the Medical School. Presented for his contribution to organising the 1889 Intercolonial Medical Congress, it was signed by more than sixty leading members of the medical profession (cat. 5). An aesthetically humbler but equally impressive document is an epistle to Peter MacCallum signed by his afternoon class in 1925, grateful for 'his skilled, zealous and inspiring work' (cat. 9). *The Brownless Memorial Supplement* to the *Alma Mater* journal in 1898 is a tribute to the life of Anthony Colling Brownless (1817–1897) and the growth of the Melbourne Medical School, showing the three important early buildings (cat. 2). By contrast, a French snuffbox made of pressed walnut commemorates the initiator of phrenology (cat. 15).

Not to be overlooked are the ephemera such as menus and invitations that create the fabric of social history. A Medical Students' Society annual dinner menu, 8 November 1899 (cat. 8), shows the skull and crossbones logo still used by that group today, while an invitation to Dr Hewlett to the Exhibition Building refers to Australian Commonwealth celebrations (page 13).

A diverse collection of notebooks and registers provides insights into the lives and work of some remarkable individuals. Lecture notes taken by John William Springthorpe in 1878 provide the only example of Professor Halford's teaching methods (cat. 4). Whereas

the student notebooks of Mary De Garis represent an important woman graduate who commanded a medical field hospital in Serbia in the 1914–18 war (cat. 22), the records of John Cade’s early lithium treatments in the 1940s–50s reveal the development of this ground-breaking therapy (cat. 29). Harold Attwood’s personal reflections show his inquisitive mind and interest in poetry (cat. 30).

In 1971, the c. 1849 Savory and Moore pharmacy was presented to the museum by the Wellcome Institute. The interior celebrates Regency mahogany cabinetwork with a serpentine-fronted display case, shelves for pharmacy bottles and gold-labelled herb drawers (cat. 1). Other gifts of important collections from the Pharmaceutical Society of Australia, Victorian Branch, Graham Roseby estate and Sir Russell and Lady Grimwade bequest build on this aspect of the collection—pharmaceutical heritage. Glass jars, ceramic pots, carboys, handpainted specie jars, measures, mortars and pestles illuminate the practices of early pharmacists who prepared medicines individually. They include a seventeenth-century English storage jar for elderberry juice (cat. 31) and a pair of Italian *albarelli* (cat. 32) that reference earlier storage jars from Syria. An early tribute to Australian nationalism is a glass specie jar decorated with an unofficial coat of arms used before the Federation of the colonies in 1901 (cat. 33).

Early treatments made extravagant claims for cures. Dr Sanche’s ‘Oxydonor’ (cat. 19) claimed in the 1890s to treat ailments ranging from asthma to diphtheria, while the ‘Improved patent magneto-electric machine for nervous diseases’ of 1885 (cat. 18), was the original ‘shock therapy’ machine. Other items’ power was based on superstition, such as the preserved caul of John Decimus Blandy, born in 1802 (cat. 46). Believed to protect the owner from death by drowning, Blandy brought this item with him on his journey by sea to Australia.

Of national significance are three display cases (cat. 17) from the Melbourne International Exhibition of 1880–81, held in the Royal Exhibition Building and made by renowned Melbourne cabinetmaker Charles Beecham. Other important late nineteenth-century items are the medicine chests which held vital supplies for practitioners in remote areas. Smaller versions were kept at home for self-administration. These individually crafted boxes feature specially designed compartments for holding stoppered bottles, drawers for scales and weights, tiny mortars and pestles and other mixing equipment. Dr James Naphthine’s medicine chest (cat. 16) was used in Port Fairy, Victoria, about 1890 and

Invitation to Dr HM Hewlett and Mrs Hewlett to attend a ‘conversazione’ at the Royal Exhibition Building, 1901;
print on paper; 25.0 x 36.9 cm





a syringe (cat. 37) was contained in the medical bag of Dr James Jamieson who initially practised in Warrnambool. An 1885 stethoscope (cat. 36) was based on Laënnec's 1816 invention, a simple but significant advance in clinical practice. An important innovation for Australians in towns newly carved from the bush and in rural areas was the early snakebite kit manufactured by Felton and Grimwade, which includes an instruction sheet for personal use (cat. 34). Felton, Grimwade & Co. were wholesale druggists and manufacturing chemists in Melbourne and also distributed drugs such as 'Ethyl chloride for local anaesthesia' (cat. 25). Referring to major discoveries, the collection has a rare ampoule of sodium penicillin G (cat. 35) made by the Commonwealth Serum Laboratories; it is a survivor from one of the earliest batches of parenteral penicillin to be made available to Australia's civilian population in the 1940s.

Obsolete practices are revealed through medical and diagnostic equipment, which map the development of technologies beginning with Roman surgical tools (cat. 49). Some key examples were used in the context of the battlefield. A remarkable example is the amputation kit made around 1800 and believed to have been used in the Peninsular War (1807–14) between France and the allied forces of England, Spain and Portugal (cat. 23). Prior to the use of anaesthetic, swift action by the surgeon was crucial for the patient's survival. Lister's carbolic spray machine (cat. 24) shows methods used to reduce wound infection during surgery in the late nineteenth century. Australians made major innovations with blood transfusion before World War II. Dr Julian Smith developed direct person-to-person blood transfusion equipment (cat. 26) and Dr Ian Jeffreys Wood and Dr Colin Wallace Ross devised the Soluvac transfusion apparatus (cat. 27). Similarly Professor Gerard Crock's collection of ophthalmic microsurgical instruments illustrates advances in this field since the early nineteenth century. A boxed set made by J Weiss & Son, London, reveals ophthalmic instruments used in the 1890s (cat. 38).

Dame Hilda Stevenson (1893–1987), through her philanthropy, contributed significantly to the development of paediatrics in Australia. The Medical History Museum Collection has many items used in the late nineteenth and early twentieth centuries in this field. A picture from 1874 (cat. 48) shows the modest beginnings of the Royal Children's Hospital on Spring Street. Dame Annie Jean Macnamara (1899–1968) is remembered for her ground-breaking work with children suffering from viral poliomyelitis. She gave many items to the museum including a tiny black leather-covered case containing a small tube-holding rack (page 9).

Noteworthy examples of scientific and laboratory equipment include the X-ray tubes (cat. 44) developed and made at the University of Melbourne around 1905 by the electrical

engineer and physicist William Stone, a pioneer of radiology. Similarly Alfred George Fryett, another non-medical graduate, contributed to the advancement of radiology in Melbourne with his remarkable skiagram prints from around 1900, as shown in his image of coronary arteries of the heart (cat. 45). Developments in microscopy are demonstrated by items such as a model of Leeuwenhoek's first microscope of the 1670s (cat. 40a) donated by Professor Carl de Gruchy, the kerosene microscope lamp (cat. 41) used by Professor Harry Brookes Allen, a microscope (cat. 42) by Powell & Lealand purchased for Professor George Britton Halford and a rare photograph of Henry Grayson with his micro-ruling machine of about 1912 (cat. 43).

Artworks such as portraits of prominent medical practitioners are another fascinating aspect of the collection. There are several images of Anthony Colling Brownless; illustrated here is a lithograph dated 1850, two years before he arrived in Australia (page 6). A more notorious character, James George Beaney, is represented by a plaster figurine (cat. 12) standing dressed in frock coat with rolled-up sleeves, a discarded bottle and cork referring to his fondness for champagne. Renowned Australian artist Eric Thake was commissioned by paediatrician Peter Jones in about 1960 to illustrate surgical procedures. These skillfully rendered diagrams (cat. 28) represent a relatively unknown aspect of this artist's oeuvre. Victor Cobb, known for his depictions of significant Melbourne buildings, captured the School of Physiology in an etching dated 1921 (cat. 39). A very recent acquisition is a stamp (cat. 47) honouring the contribution to paediatrics of Dame Kate Campbell. This was issued in April 2012, coinciding with the Melbourne Medical School's 150th anniversary.

Rare books have always been an important part of the medical holdings. These are now housed in Special Collections of the Baillieu Library. *I discorsi di M. Pietro Andrea Matthioli* was the standard text on medical botany for European physicians during the later sixteenth century. This 1568 edition (cat. 50) was acquired by the Baillieu Library to celebrate the Medical School's anniversary.

The Medical History Collection is an important resource for students, staff and the broader community. I thank all the contributors for their insightful commentary and interest in the collection. Special thanks are due to Dr Laurence Simpson and Dr Geoffrey Kenny for assisting with the selection of the items. These fifty pieces are just some of the many treasures in the collection—a starting-point for further exploration.

Dr Jacqueline Healy

Curator, Medical History Museum



A NOTABLE PHARMACY COMES TO MELBOURNE

The University of Melbourne has been presented with the fittings and furniture of Savory and Moore's pharmacy, formerly of 29 Chapel Street, Belgrave Square, London. This generous gift from the Wellcome Trust had the enthusiastic support of Dr FNL Poynter, Director of the Wellcome Institute of the History of Medicine, who had opened the Medical History Department in 1967. The pharmacy has been re-erected in the Medical History Museum in its original form, including a reduced facsimile of the bow window, and was officially opened by the Chancellor Sir Robert Menzies on 1 June 1971. The mahogany shelves, drawers and cupboards are in an opulent late Regency style well proportioned to the narrow but deep shop, making it a unique attraction probably unparalleled in Australia.

The pharmacy was originally opened in 1849 at 29 Chapel Street as one of the branches of Savory and Moore's main shop in New Bond Street. Constructed in a converted portion of a Georgian terrace house, it supplied the needs of the fashionable inhabitants of Belgrave Square and of Buckingham Palace nearby; in the window was the notice of warrant of appointment to HRH The Duke of Edinburgh, with his coat of arms. When the shop closed in 1968, Savory and Moore presented the fittings to the Wellcome Institute. The reconstructed shop has been developed as a museum exhibit to show the types of drugs available in the latter part of the nineteenth century, when all medicines were compounded on the premises by the pharmacist. In this regard the majority of the bottles and jars came from Palmer's pharmacy, Ballarat, most with their contents of the period 1870–90; all these are strictly contemporary with the ones originally in the Chapel Street shop. There is also a small display of pre-1920 drugs manufactured by Burroughs Wellcome and other firms.

This gift to the University of Melbourne is yet another example of the generosity of the Wellcome Trust, which was created by the will of Sir Henry Wellcome for the purposes of advancing medical research in any part of the world.

Professor Emeritus Kenneth Fitzpatrick Russell

References: This is an edited extract from an article written by KF Russell in 1971.

Cat. 1 **Fittings from Savory and Moore pharmacy, London**, c. 1849; glass, wood; 2.50 x 1.96 x 10.08 m;
Gift of the Wellcome Trust, 1971

A MAN OF GREAT VISION

Thomas H Maguire's portrait of Dr Anthony Colling Brownless (1817–1897) (page 6) is dated 1850, two years before its subject emigrated to Melbourne, and twelve years before he was to found the Melbourne Medical School. The picture deserves a special place in our collection not just because Brownless founded the school, but because it was made before providence found him and cast him in the role of formative influence on the future of medical teaching, research and practice and the University of Melbourne.

In 1850 Brownless was about thirty-three and would have had little comprehension of the life awaiting him in distant Melbourne, Australia. His medical tuition had been protracted for the era, commencing in 1834 with an apprenticeship and postponed repeatedly due to illness and trips abroad to regain his health, until he graduated in 1841. His surgical training at St Bartholomew's Hospital in London and a few years' practice were followed by postgraduate work in Liège, an MD at St Andrew's Hospital then election to the Metropolitan Dispensary, Fore Street, and Royal General Dispensary, Aldersgate Street. Illness still dogged him though, forcing first his withdrawal from private practice and then, in 1852, his emigration to Australia: to Melbourne, of course, on the cusp of gold fever.

When he died in 1897, in his eighty-first year, Sir Anthony Colling Brownless had determined the innovative five-year curriculum for Australia's first medical course, championed the Medical School as a faculty, then led the University of Melbourne as vice-chancellor for twenty-nine years and as chancellor from 1887 until his death. These achievements were recognised widely and well, as evidenced by the *Brownless Memorial Supplement*.

We treasure these items because they were produced at the opposite ends of the career of a man who started with a solid background but an extraordinary potential, and the strength of character and organisational vision that empowered him to become a great medical and educational leader. These items are precious because they remind us of the potential careers and contributions awaiting each of our students.

Professor James A Angus, AO

Cat. 2 Cover, *Brownless Memorial Supplement*, 1898, Rae Bros Photo-Process House; print on paper; 24.5 x 19.2 cm



DISSECTION CLASSES IN THE NEW MEDICAL SCHOOL

Eighteen sixty-four marked the second year of dissection classes in the University of Melbourne's new Medical School, and the first in the newly constructed dissecting theatre on the Madeline (now Swanston) Street frontage of the University, between Grattan Street and Tin Alley. The dissecting theatre was in the southern wing of the new building. The final position was not that chosen by the committee entrusted with the building of the Medical School, which had expressed a preference for a position nearer the other University buildings; objections from other members of the University about the olfactory proximity of decaying bodies consigned the Medical School to the farthest point of the grounds. Others in the medical community were not happy with the position of the new building, being of the view that the Medical School should have been located near a hospital. The first year of dissecting classes had been held in the hastily refurbished stables behind the house of the first professor of anatomy (and pathology and physiology), George Britton Halford, opposite the new building.

In this clearly posed photograph we can see the porter standing in the background and the whole cohort of first- and second-year students dissecting two cadavers on two tables. From the left they are OV Lawrence, TR Ashworth, P Moloney, F Long, A Mackie, Dr GH Featherstone (demonstrator), Professor Halford and WC Rees. In the pre-asepsis era students would often leave dissecting classes to attend clinical classes in the hospitals without necessary precautions.

Such small numbers of students were to be a feature of the school for a number of years. Not only was there significant opposition to the Medical School from within Melbourne's medical fraternity and the University, but many students still preferred the cheaper courses being offered in Britain. Apart from the difficulties encountered in attracting students, Halford also regularly bemoaned the scarcity of available cadavers for dissection.

Dr Ross L Jones



Cat. 3 **Anatomy dissection class**, 1864; photograph, ink and watercolour; 49.3 x 55.8 cm

INSPIRATIONAL TEACHER 'EXCEPTIONAL AND STRIKING'

The lecturing style of the Melbourne Medical School's first professor, George Britton Halford (1824–1910), has been described as 'exceptional and striking', deliberately planned to develop 'in us [medical students] the spirit of investigation; he gave us things to do and didn't do them for us'. On the other hand, his inaugural lecture was assessed retrospectively as strong on rhetoric and literary allusion, but weak on scientific interest.

Given these differing perspectives on the style and content of Halford's communications at a time when he was shaping the early Medical School, the 1877 lecture notes hand-written by one of his bright students—the effervescent John Springthorpe (1855–1933)—constitute compelling reading. The fact that they are the only surviving representation of Halford's teaching adds to their importance.

They tell us that Halford's *modus operandi* was to describe and assess the latest findings by various named scientific investigators, employ a show-stopping demonstration or two to make some salient points, and then articulate conclusions which, hopefully, students had already reached themselves. His lecture on saliva was a case in point. First, Halford presented students with the findings of various investigations on the make-up of the salivary glands, their nerve and blood supply, and the composition of their secretions. Then he mixed starch and iodine, added saliva and shook it. By the end of the lecture, in less than thirty minutes, not a trace of starch remained. In the meantime, Halford discussed the influence of various stimulants on salivary secretions, and methods for analysing its chemical constituents. Only as the lecture concluded did Halford reiterate the functions of saliva, most of which he had already deftly illustrated: as a promoter of digestion, as an essential intermediary in the sense of taste, and as a lubricant of the mouth, teeth and tongue, enabling the rapid movements of speech.

He was indeed a skilled communicator of scientific insights, who could also illustrate key points through entertaining showmanship.

Dr Ann Westmore

Cat. 4 John William Springthorpe, **Notes taken at Professor Halford's lectures**, 1877; ink, pencil on paper, leather and cardboard; 19.5 x 23.4 x 3.0 cm

Dr Golding Bird noticed such urine became changed from a yellow to green on decomposition. 2 drops of H. Ac instantly precipitate Cystine. The ppt undissolved by Heat or liq. Acids ∴ could not be the ^{urates} ~~urates~~ - instantly dissolved by Caustic Ammonia, and beautiful 6 sided crystals obtained if the solution be exposed in watch glass to evaporate in air - this is the characteristic reaction of Cystine - crystallizes in 6 sided tablets to square prisms - not much clinical significance except that it may lead to Calculus - origin probably from the Liver as comb like that of Taurine - supported by Scherer's discovery of it in Liver of Syphilitic patients. Xanthine - only found 4 times in Calculi - chiefly connected with Uric Acid containing only 2 atoms less of O. ^{Stöcklin and Frisch} Leucine & Tyrosine occasionally found in Urine - ^{and Typhoid Fever} - ^{occasional} diagnostic of Acute Yellow Atrophy of the Liver, and depositing on standing a ^{greenish yellow} sheet like bundles of Acicular crystals. Xanthine, Hypoxanthine, Leucine & Tyrosine Creatine / Creatinine are all recognised as intermediate steps in the ^{depressive} ~~depressive~~ Metamorphosis of arcticised tissue of which the ultimate steps are Urea Uric Acid H_2O CO_2 ∴ not surprising that ^{they are} found in small quantity in Serum / Blood. By retardation of this Metamorphosis appear in the Urine

II

The Phosphates
I. The Earthy Phosphates {
1. Amorph. Phos. of Lime = Bone Earth
2. Cryst. - - - - - = Stellar Phosphate
3. Ammon. Magnes. Ph. = Triple phosphate

(1) and (3) usually ppt together. Found together in the same Urine

PIONEERING MEDICAL ADMINISTRATOR AND GOVERNMENT ADVISOR

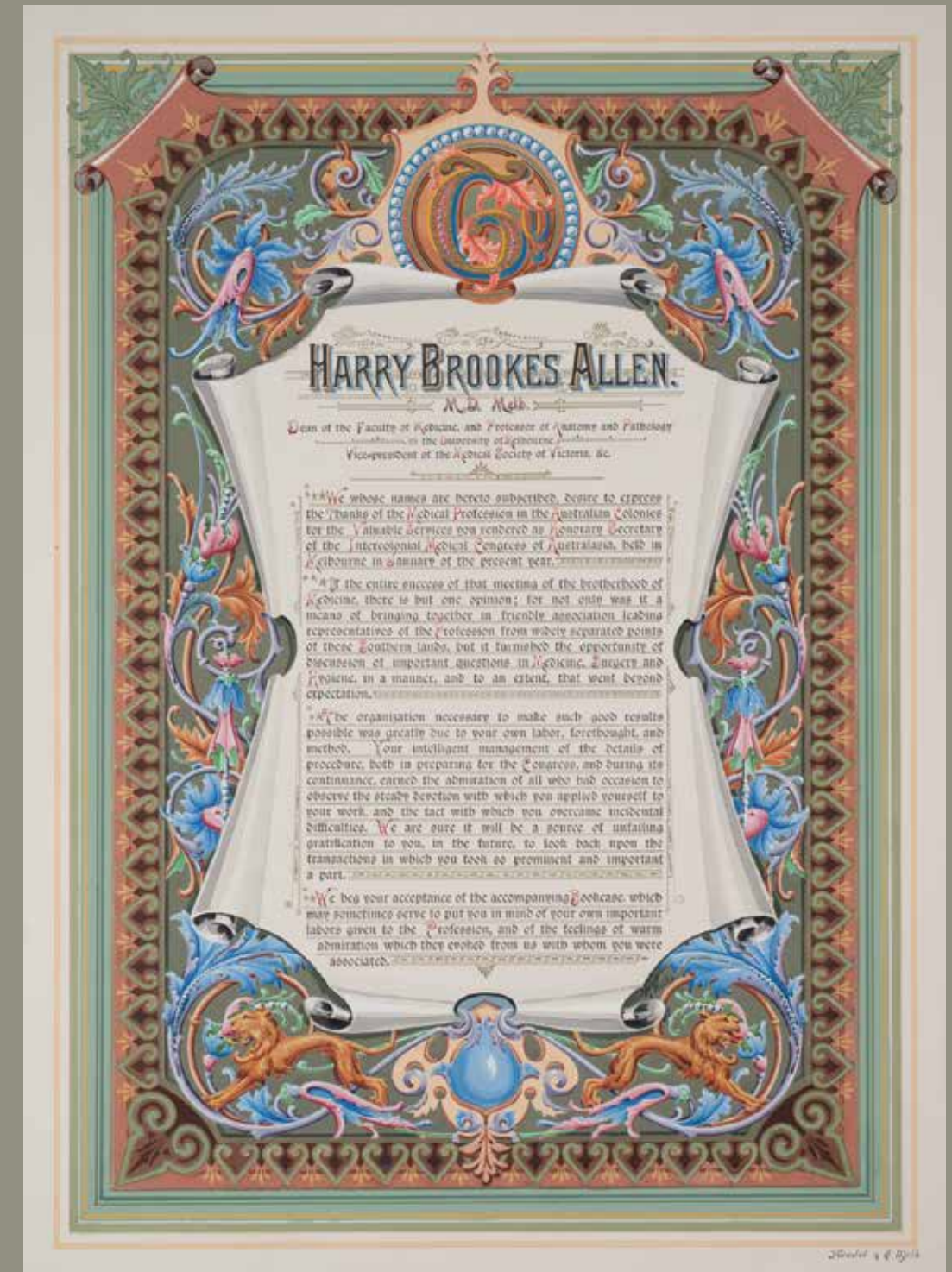
Harry Brookes Allen (1854–1926) became the first Australian-born professor at the University of Melbourne in 1882, when a reform of the Medical School split the foundation chair of anatomy, pathology and physiology into two, with Allen being appointed professor of anatomy and pathology, and his teacher, the foundation professor George Britton Halford, retaining his first love, physiology. As well as serving as dean for extensive periods, Allen took on numerous positions as a medical administrator and government advisor, perhaps most importantly playing a major part in the introduction of Melbourne's extensive sewerage system in the late nineteenth century.

One of Allen's many achievements was as organising secretary for the Second Intercolonial Medical Congress, held in 1889 in Melbourne, for which he was recognised by this illuminated address. With the difficulties posed by the great distances in the Australian colonies, lack of unification of medical qualifications and challenges in maintaining professional standards, such meetings played a vital part in informing doctors of recent advances in medicine, and in maintaining professional solidarity and esprit. The latter was particularly true at this time, when control over the treatment of the populace was highly contested, both within the university-trained medical profession and between the university and numerous other medical practitioners. The conference took place in January and amongst the 550 delegates could be found the crème de la crème of Australia's medical and biological scientists. President of the congress was the surgeon Thomas N Fitzgerald, the first Australian to be knighted for services to medicine.

Allen's contribution to the 1889 congress was just one small part of a life devoted to the health of Victorians. His contribution to the development of the Medical School and the important leadership he took in medical Melbourne cannot be overestimated.

Dr Ross L Jones

Cat. 5 Troedel & Co., **Illuminated address presented to Professor Harry Brookes Allen**, 1889; leather, gilt, ink, paint, paper and cardboard; 54.8 x 42.6 cm





A SYMBOL OF THE COLONY'S PROGRESS

William Carey Rees (1843–1879) was one of the three original students of the Melbourne Medical School and, along with Patrick Maloney, was the first to be awarded a Bachelor of Medicine degree from the University. Rees was born in Isleham, Cambridgeshire, where his father served as a Baptist minister. In 1859 he arrived with his family in Victoria, after the Baptist Missionary Society had encouraged his father to emigrate to the rapidly expanding colony. Rees's time at the Medical School was marked by the arrival of George Britton Halford as the first professor of anatomy, physiology and pathology, but the number of students graduating remained insignificant compared to the influx of British-trained medical practitioners.

Following graduation Rees was, for a short time, resident medical officer at the Melbourne Hospital, before accepting a similar position in Adelaide. In 1869 he returned to England where he passed the Membership of the Royal College of Surgeons. Returning to Melbourne in the early 1870s, Rees settled in South Yarra and became, in many respects, a model practitioner: an active member of the Medical Society of Victoria; holder of a series of honorary appointments at the Melbourne and Children's hospitals; and a contributor to the *Australian Medical Journal*. His burgeoning career was, however, cut short when he succumbed to a 'carcinoma of liver' on 11 April 1879 at the tender age of thirty-three, leaving a modest estate of £752 to his wife and two children.

Strangely neither the *Australian Medical Journal* nor the Medical Society of Victoria chose to memorialise Rees's short life and career. Was this the result of his youth, or the fact that, according to an obituary in *The Argus*, 'he had not entirely escaped collisions' with his professional colleagues? Perhaps, as well, his medical education counted against him in a colony populated by migrant medical practitioners educated in the British Isles. Significantly, for *The Argus* Rees's life 'thoroughly illustrated the completeness of the medical education our own University is able to afford', and he thus became a symbol of the colony's progress.

Dr James Bradley

References: *The Argus*, 12 April 1879, p. 5; Basil S Brown, 'Rees, David (1804–1885)', *Australian dictionary of evangelical biography*, online edition, http://webjournals.ac.edu.au/journals/adeb/r_/rees-david-1804-1885/, accessed 31 January 2012; Public Record Office Victoria: online immigration indexes; register of births, deaths and marriages; register of probate; KF Russell, *The Melbourne Medical School, 1862–1962*, Melbourne University Press, 1977.

Cat. 6 **William Carey Rees**, c. 1870; photograph of drawing; 13.3 x 8.0 cm

REMARKABLE, TENACIOUS AND VISIONARY WOMEN

It is difficult for us today to imagine the challenges faced by women in becoming doctors in the nineteenth century. These first female medical students were admitted to the Melbourne Medical School in 1887, six years after women first attended the University of Melbourne and before women had the right to vote. They went on to change the course of history by setting up a hospital run by women for women (the Queen Victoria Hospital for Women) and set a benchmark for women's healthcare in Victoria and indeed the world. They also founded the Victorian Medical Women's Society, an organisation that continues to this day to facilitate the professional development of medical women and to advocate for the health of women and children. These were remarkable, tenacious and visionary women.

In the photograph are (seated from left to right): Clara Stone, Margaret Whyte, Grace Vale and Elizabeth O'Hara. Standing from left to right are Helen Sexton, Lilian Alexander and Annie O'Hara. Clara Stone went into private practice with her sister Constance and joined her at the free dispensary, which saw over 2000 women in the first three months. (Constance Stone was perhaps the last woman to be refused entry to medicine at the University of Melbourne, studying instead in Toronto, Philadelphia and London before returning to become our first registered female medical doctor.) Margaret Whyte was the first woman doctor to hold a post on the Royal Women's Hospital staff, where she was appointed assistant resident officer in the midwifery department, after having been refused a position as resident medical officer at the Melbourne Hospital because she was female. Grace Vale became a general practitioner in Ballarat and witnessed the taking of the first X-ray there. It is thought that Elizabeth and Annie O'Hara went into private practice.

Helen Sexton was the first woman to be elected a member of the honorary staff as a surgeon at the Royal Women's Hospital. Soon after the outbreak of World War I, Sexton, aged over fifty, took a small field hospital to France. This was a gift from Sexton and other women doctors, whose offers to serve had been refused by Australia's military authorities. Lilian Alexander, the first female student at Trinity College and a leading surgeon, also served overseas in World War I.

Dr Desiree Yap

References: *Victorian honour roll of women* 2007, Melbourne: Office of Women's Policy, Department for Victorian Communities, 2007, pp. 22–3.

Cat. 7 **First women students admitted to Melbourne Medical School, 1887**; photograph; 28.0 x 33.0 cm



A NIGHT AT THE VIENNA CAFÉ

A peculiarity of the early days of the Medical Students' Society (MSS) is the extensive involvement of graduates and, for a long time, academic staff, in the activities of the organisation. For many years academic staff members held MMS leadership positions, and graduate contributions to the student magazine, *Speculum*, were routinely published.

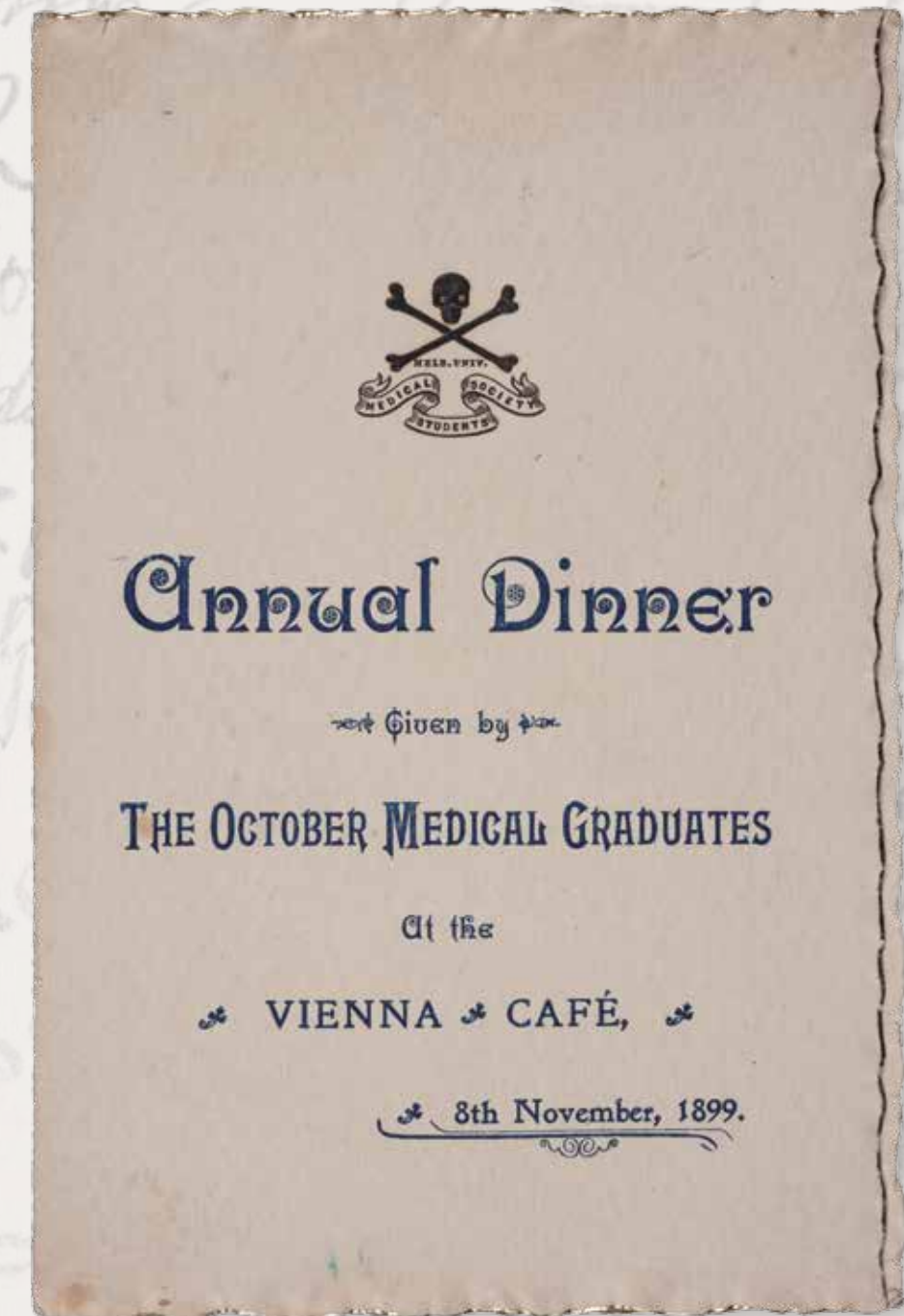
At this dinner the hosts' recent graduation in October would no doubt be the primary focus of the celebration. They were obviously serious about the food; the menu inside lists a six-course dinner starting with oysters and olives, and progressing through soup, fish, entrée, roast chicken and three small *entremets*, before dessert was served with coffee. There are thirty-two names signed across and beside the menu, likely the graduating class of October 1899.

The Vienna Café on Collins Street, Melbourne, was a popular venue for such important events. Annual and general meetings of organisations such as the Law Institute of Victoria, the Master Printers' Association, the Bankers' Institute, the Accountants and Clerks' Association and even the Melbourne Chess Club were regularly held at the Vienna Café. The café's first floor was divided into compartments specially arranged for meeting the requirements of private parties and a separate entrance ensured guests could enter and leave away from the public gaze.

It has been a very long time since anyone thought it appropriate that the Medical Students' Society be led by academic staff, but creating opportunities for interaction between alumni and students and fostering strong intergenerational relationships is still in the best interests of students, alumni and the Medical School itself.

Harsch Kothari

Cat. 8 **Medical Students' Society annual dinner menu**, 1899; print on card with gilt; 15.2 x 10.2 cm.
Gift of Dr Don Spring, 1968



To Professor Peter MacCallum, M.D.

*The members of his Monday afternoon classes
desire to express their grateful sense of his skilled,
zealous and inspiring work.
November 1925.*

*W. L. Jewett M.D.
L. S. Latham M.A. M.D.
H. E. Funnell M.A.
J. M. Hume M.D.
J. H. Hamilton M.D.
P. Hamilton M.D.
A. H. Macnamara M.D.
Robert Lough M.D.
G. F. Davies M.D.
A. H. Rowden White M.D.
Francis C. Lush M.D.*

*W. Dunbar Hooper M.D.
W. S. Johnston M.D.
R. R. Stawell M.D.
H. O. Cowan M.D.
J. J. Tait M.D. M.S.
W. A. Updegrave M.D.
W. A. Hailes M.B. F.R.C.S.
J. B. Chambers M.R.C.P.
Charles H. Kellum M.D.
W. H. Armitage M.D.
H. E. Taylor M.D.*

*W. H. Brown M.D.
Geoffrey A. Phipps M.D.
Charles J. Fothergill
G. Enders Shaw
G. J. Brown M.D. F.R.S.
J. R. Brown M.D.
J. H. Reid M.D.
Murray Hunter M.D.
H. D. S. Hirst M.D. M.R.C.P.
J. H. S. Hirst M.D.
Frank L. Apperley M.D.*

SKILLED, ZEALOUS AND INSPIRING WORK

Sir Peter MacCallum (1885–1974) was born in Glasgow, the son of a grocer. His family emigrated to New Zealand in 1886 and he left school aged twelve years, later winning scholarships resulting in a BSc, MSc and MA in New Zealand, then obtaining a medical degree at the University of Edinburgh. He served in the medical corps in World War I and received a Military Cross on the Western Front before being gassed. He married Dr Bella Jennings, a scientist.

MacCallum was offered chairs in pathology in both Johannesburg and Melbourne, taking up the position at the University of Melbourne in 1924. His great contemporaries here included Charles Kellaway, director of the Walter and Eliza Hall Institute, and William Penfold at the Commonwealth Serum Laboratories. His junior researchers included future academic leaders RD Wright, Edgar King and FL Apperley. Peter MacCallum was dean of the Faculty of Medicine (1939–43 and 1947–50), foundation member of the Royal Australasian College of Physicians, and chairman of the Australian National Research Council (1948–51). He was knighted in 1953. Sir Peter MacCallum chaired the Anti-Cancer Council of Victoria (1946–63). When the Cancer Institute was established in 1949 following his advocacy, its outpatient programs were named the Peter MacCallum Clinic in his honour. These two programs were brought together in 1986 under the name the Peter MacCallum Cancer Institute.

This note of appreciation was given to MacCallum one year after his arrival in Melbourne. The signatories were not inexperienced undergraduates but rather his contemporaries, many of whom had also seen war service at Gallipoli and the Western Front. They included established surgeons and physicians who themselves are major figures in the medical history of Australia. Bernard Zwar, for example, became chairman of the Walter and Eliza Hall Institute, while JW Dunbar Hooper founded the chair of obstetrics at the University of Melbourne and was a founding member of the Aerial Medical Service of John Flynn's Australian Inland Mission, later the Royal Flying Doctor Service. Thus this note illustrates the position Sir Peter MacCallum was accorded by his contemporaries in Melbourne in 1925.

Professor James F Bishop, AO

Cat. 9 Epistle to Peter MacCallum, 1925; ink on paper; 35.6 x 30.4 cm

TO DR AE ROWDEN WHITE, FROM TWO GRATEFUL PATIENTS

This beautiful timepiece is also a presentation piece. A fob-style clock, too large to carry about, is cradled inside a silver case, which bears the inscription describing its first presentation: 'To Dr. A.E. Rowden White. From two grateful patients M.E. and S.S. Wakley. 1911.' Sir Alfred Edward Rowden White (1874–1963) was an eminent physician and generous philanthropist, who had trained at the University of Melbourne.

A small card and short note tucked inside the case, under the clock, offer clues to other presentations in its history. The first is a newspaper death notice for Victoria Wakley, daughter of James and Elizabeth Wakley, stuck to a card, accompanied by a note dated 1974 recording that she donated the clock to the Museum of the MSV (Medical Society of Victoria). The second is a thankyou note, addressed to a Dr Dickson and dated 21 December 1962. The author, whose signature is unclear, thanks Dr Dickson, 'for your kindness and assistance at the Stawell Oration and the dinner on Saturday. I have appreciated the invitations and the consideration shown me and the tributes paid to uncle.' The author then offers Dr Dickson some trinkets which may be 'of interest to your museum. There is a beautiful old watch, silver watch box and ... all of which belonged to a son of James Wakley of the Lancet ...' (James Goodchild Wakley was editor of *The Lancet* from 1825 to 1886. He was a son of its founder, Thomas Wakley.)

The clock, in its silver case, was most recently presented by Harry Hemley, president of the Australian Medical Association Victoria, to James Best, head of the Melbourne Medical School, at a celebration held in May 2011 to mark the donation to the Medical History Museum of the AMA collection of historical documents, objects and photographs, which had been on loan to the University since 1994.

Dr Harry Hemley

Cat. 10 WM Drummond & Co., **Clock presented to Dr AE Rowden White**, 1911; silver, copper, other metals, enamel, wood, leather, velvet and satin; 17.0 x 15.2 x 4.5 cm. Gift of Australian Medical Association Victoria, 2011



ESTABLISHING ORDER OUT OF CHAOS

Prior to the establishment of a local registration board, few Melbourne doctors were prepared to risk sending their credentials or travelling to Sydney to register and gain legal authority to practise. This meant that as well as many qualified men practising without a licence, any person could claim to be a doctor and treat the unsuspecting public with their healing arts. This situation was felt to be intolerable by the doctors who had undergone lengthy training in universities and hospitals or apprenticeships. Not only was the public unprotected from harmful ‘quackery’, but the qualified men suffered financially from the competition. This may have been more keenly felt in such a small settlement as Port Phillip, prompting a group of doctors to take steps to rectify the problem.

The proposed solution took the form of this petition to Sir George Gipps, Governor of New South Wales. It refers to an 1837 Act of the New South Wales Legislative Council, which authorised the setting up of a medical board in Sydney. Governor Gipps could authorise the establishment of a branch board in Melbourne with similar powers, and it was this that the fifteen signatories were seeking. It was an attempt too to impose some degree of order, at least in their professional life.

All the signatories arrived in the colony in or before 1842. Some served as ship’s surgeon or surgeon superintendent on immigrant ships before arriving and settling in the Port Phillip District; some took up prominent government positions such as city health officer or coroner. PE Cussen set up the settlement’s first rudimentary infirmary in a two-roomed hut, before DE Wilkie, DJ Thomas and A O’Mullane staffed Melbourne’s first public hospital. Signatories went on to become the founders of the Port Phillip Medical Board and the Port Phillip (subsequently Victorian) Medical Association.

This petition reveals the energy and intensity our early colonial medical men poured into professional issues and relationships, and helps explain why rules and regulations were so important in this isolated outpost.

Ann Brothers

References: Howard Boyd Graham, ‘Happenings in the now long past’, *Medical Journal of Australia*, vol. 11, August 1952; Medical Practitioners Board of Victoria, *Medical Board old register, 1845–1862*; Ann Brothers, *Treating the past: How medical Melbourne came of age* (exhibition catalogue, Medical History Museum), Centre for Health and Society, University of Melbourne, 2004.

Cat. 11 **Petition on behalf of physicians, surgeons and surgeon apothecaries practising in Melbourne**, c. 1842; ink and wax on paper; 64.5 x 42.2 cm. Gift of Dr David Roseby to the Medical Society of Victoria, 1940; loan from Australian Medical Association Victoria, 1994; donated 2011

To His Excellency Sir George Gipps, Knight,
Captain General and Governor in Chief of the Territory of New South
Wales and Vice-Admiral of the same

The Humble Petition of the undersigned Physicians, Surgeons, and Surgeon
Apothecaries actually practising in the Town of Melbourne in the District of
Port Phillip,

Sheweth

That whereas by an Act passed in the Legislative Council of New South Wales in the
first year of Her Majesty Queen Victoria's reign entitled "An Act to provide for the Regulation of
Medical Affairs at various inquiries &c." and whereas by a further Act passed during the same
reign entitled "An Act to define the qualifications of Medical Assistants, the regulation of
witnesses of dissections, &c." and whereas the said Acts in which purpose have
been contained, in the Act last recited it is enacted to appoint a Committee or Medical Board
with power to examine and authenticate the certificates of persons claiming to be duly
qualified Medical Practitioners And whereas it is enacted that a Bill is
immediately to be introduced into the Legislative Council with effectual to secure the same
objects and to protect the Profession from unwarranted intrusions, thereby rendering such an
intervention imperative in all cases And whereas much inconvenience delay and expense
will now be incurred in the transmission of the necessary documents to Sydney.

Your Petitioners therefore pray that Your Excellency will take the premises into
consideration and under authority of the Act 3rd Victoria No 22 direct the establishment
of a Branch Medical Board at Melbourne, so soon to be introduced in any Act relating
to the Medical Profession, which may be hereafter introduced into the Legislative Council,
a clause to the same purport.

And your Petitioners will ever pray &c

PE Cussen M.D.

W. Wilkie M.D.

Superintendent

Charles John Thomas

W. O'Mullane

W. O'Mullane

David John Thomas

E. C. Wilkie M.D.

Dr. J. Black M.D.

Edmund Boyd

George Horne M.D.

John William Simpson

David John Thomas

Arthur Lindsay

Edmund Boyd

CHAMPAGNE JIMMY

‘What were these malicious charges? The charge was one of murder.
The victim was a barmaid, Mary Lewis.’

James George Beaney (1828–1891) was a flamboyant, controversial senior surgeon at the Melbourne Hospital. He was also known as ‘Diamond Jim’ because of the rings he wore—even during operations—and as ‘Champagne Jimmy’ because of the champagne he dispensed freely [as shown by the discarded bottle at the base of the figurine]. Beaney is best known in this University for his benefactions, including the Beaney Scholarship in Pathology which has given early assistance to such notables as Leonard Cox, Carl de Gruchy, John Clarebrough and Graeme Ryan.

On 12 March 1866, Mary Lewis, barmaid at the Terminus Hotel in St Kilda, consulted Beaney, having already consulted two other doctors, one of whom thought she was pregnant. She was certainly unwell before seeing Beaney, who visited her at her lodgings three times. On the last occasion he administered chloroform ‘to give her a sleep’. Mary Lewis died the following day from what would appear to be an established pelvic infection. Beaney certified death as due to ‘malignant disease of the uterus’, by which he did not infer cancer but ‘a malignant pustule’. Because of rumours of an illegal operation, Dr Chandler, the coroner, ordered a post-mortem, which was carried out by Dr James Rudall (later to become a well-known surgeon). Beaney was unconcerned and did not attend. The findings as reported are confusing.

Beaney was tried on two occasions. The crown gave the diagnosis as an illegal abortion and uterine rupture and tried to prove Beaney to be the perpetrator of an illegal operation. The defence averred that the death was due to septicaemia and the uterus was subinvolved from a previous pregnancy. At the first trial the jury failed to agree. At the second, because of the devastating cross-examination of Rudall by Beaney’s lawyer, a verdict of ‘not guilty’ was achieved. The trials created much public interest and because of Beaney’s nonchalant attitude, much animosity.

Professor Emeritus Harold D Attwood

References: This article is an edited extract from H Attwood, ‘Cover story’, *Chiron*, vol. 2, no. 2, 1989, p. 2.

Cat. 12 A Penny & Son, **James George Beaney**, c. 1870; gypsum, paint; 25.0 x 12.1 x 11.8 cm.
Gift of the estate of Dr RL Fulton, 1966



A CHANGE OF ADDRESS

The first Act of any parliament to regulate medical practice in Australia was passed in Tasmania on 27 November 1837, well ahead of the first *Medical Registration Act* in Britain in 1858. The Medical Board of New South Wales was formed in 1838. In 1844 the New South Wales Act was amended to establish a Medical Board for the Port Phillip District, later to become the state of Victoria. The first medical register published in January 1845 had twenty-five names. The first *Medical Practitioners Act* in Victoria was passed in 1862.

The initial role of the Medical Board was to identify those who were qualified and fit to be enrolled on the register. It soon became clear however, that the board also needed the power to remove from the register the names of those whose qualifications proved to be dubious or whose conduct was disreputable. These powers were not legislated until 1908. Over the century since then, the legislation has been amended many times, giving the board powers to investigate, monitor and where necessary sanction, suspend or cancel the registration of doctors whose conduct, performance or health places the public at risk, or falls below the standards that could reasonably be expected by the doctor's peers or by the public. On 1 July 2010 the Medical Practitioners Board of Victoria ceased to exist and medical registration became national. The members became the Victorian Board of the Medical Board of Australia. The Medical Board of Australia was established under *Health Practitioner Regulation National Law* to regulate medical practice across Australia. The first objective of the national law is 'to provide for the protection of the public by ensuring that only health practitioners who are suitably trained and qualified to practise in a competent and ethical manner are registered'.

The register itself was once a large handwritten book. It then became an annual publication through the government printer. It is now online and can be freely accessed at www.medicalboard.gov.au. And today, as in Dr Wallace's time, medical practitioners are still obliged to notify the Medical Board of a change of address.

Dr Joanna Flynn, AM

Cat. 13 **Registration certificate from Medical Board of Victoria for Isaac Wallace**, 1864; ink and print on paper; 33.5 x 21.9 cm. Loan from Australian Medical Association Victoria, 1994; donated 2011



N.B.—Every Registered Person who changes the residence, is particularly requested to send the new Address, as soon as possible, to the Medical Board. Persons neglecting this requirement are liable to have their Names DELETED FROM THE REGISTER.



CERTIFICATE NO. *462*

(UNDER THE "MEDICAL PRACTITIONERS ACT OF 1862"—25 Vict. No. 158.)

This is to Certify, That *Isaac Wallace*

has been registered by the Medical Board of Victoria as a legally qualified Medical Practitioner, in accordance with the provisions of the Act of the Parliament of Victoria, numbered 158, and that the following is a true copy of the record thereof in the Medical Register :—

DATE.	NAME.	RESIDENCE.	QUALIFICATIONS.
<i>1864</i>	<i>Mr Isaac Wallace</i>	<i>Ballarat</i>	<i>Lic. R. Coll Surg</i>
<i>10th</i>		<i>near</i>	<i>Edinb. 1846</i>
		<i>Murdoch</i>	<i>M.D. Univ. K Coll</i>
			<i>Aberd. 1847</i>

By Order of the Board,

McGowan Thomas

Medical Board of Victoria,
Melbourne, *10 Nov. 1864*

Secretary.

DAILY LIFE OF A MEDICAL STUDENT

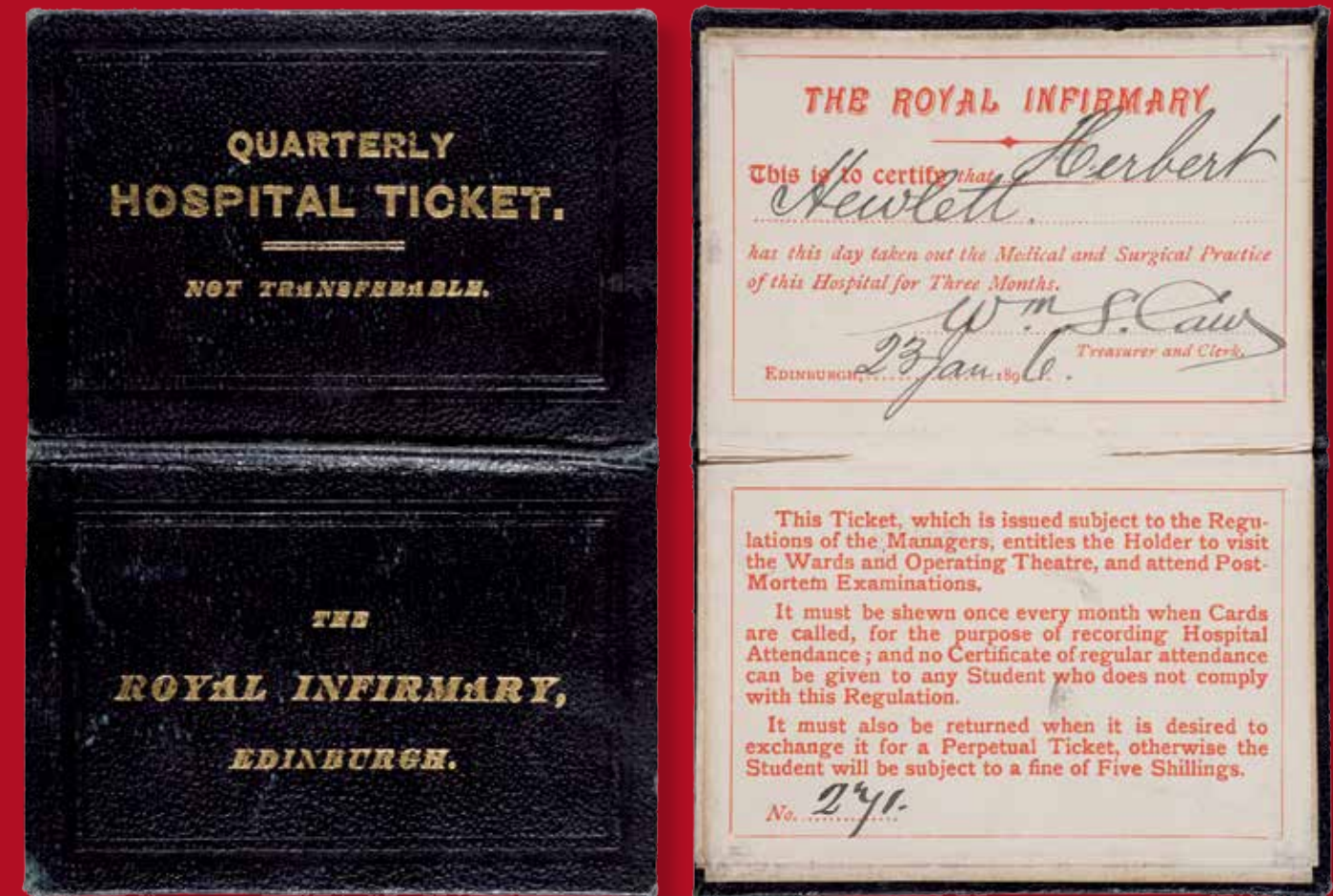
This hospital admission ticket, issued to pioneer radiologist Herbert Hewlett in 1896, illuminates the daily life of a medical student and the changing face of the hospital in the nineteenth century. Before 1750, hospitals were ecclesiastical shelters for the poor, sick and elderly alike. Formal medical education was more theoretical than practical, and few budding doctors trained within hospital walls. By the late eighteenth century however, a great transformation was sweeping across Europe, with hospitals developing into prestigious centres of medical teaching and scientific research. French physician Félix Vicq d'Azyr insisted, in the wake of the French Revolution, that medical students should learn 'with the eyes rather than the ears'. They began to crowd into hospitals, eager to practise their diagnosis skills at the bedside and in the dissection room. The reputation of Parisian hospitals for clinical teaching has been made famous by Michel Foucault, who described post-Revolutionary Paris as the site of the 'birth of the clinic'. It is true though, that clinical training was already well established in several other locations, of which Edinburgh is a prominent example.

Edinburgh's Royal Infirmary was originally conceived as a 'seminary of medical education'. Formal clinical teaching began there in 1748, and patients were selectively admitted in order to offer students the greatest variety of diseases. By the mid-nineteenth century this thriving teaching environment was so popular that, like in many large hospitals, tickets were sold to control the numbers 'walking the wards'. Tickets permitted quarterly access to wards, theatres and post-mortems.

Herbert Hewlett began his medical study at the University of Melbourne. Enticed, like many, by the wealth of practical experience on offer, he went to Edinburgh to complete his training. Hewlett was greatly influenced by his Scottish mentor, paediatrician John Thomson, and went on to work at Melbourne's Children's Hospital for thirty-eight years, where he established our city's first public radiology department.

Dr Kate Robson

Cat. 14 **Quarterly hospital ticket, the Royal Infirmary, Edinburgh, issued to Herbert Hewlett, 1896;** ink, print on paper and leather; 6.0 x 8.4 x 0.4 cm. Gift of Mrs Nancy L Currie, 1974



A POPULAR PARADIGM

Franz Joseph Gall (1758–1828) developed a system he called cranioscopy, later renamed phrenology, a concept in which specific brain functions are related to the size and shape of particular areas of the skull. Gall postulated that these skull regions could be measured with calipers to gauge the capacity of an individual. His theory was not widely accepted scientifically and even ridiculed, causing Gall to leave his position as a lecturer in Austria. The chief objection to his work however had been a religious one, as it shifted human thought and behaviour from the religious and moral domain to the neurological one, and so the authorities acted to prevent his popular lectures from being heard.

Phrenological diagrams are now part of popular culture, usually shown as an amusement, and humorously annotated porcelain phrenological heads can be purchased at joke shops. Gall's theory was not entirely without merit however, and represented a paradigm shift in scientific thought, containing the germ of more sophisticated and successful models of cerebral localisation. Gall's theories became very widespread between 1810 and 1840, and this snuffbox from that period testifies to their popularity, showing skulls on the front and a list of the twenty-seven 'organs' on the reverse. Each of these organs was related to an area of the brain, some with functions such as 'affection for one's offspring' and 'guile', but also those now recognised as being associated with particular brain regions, such as 'sense of language and speech' and 'sense of places and space proportions'. In 1861 Pierre Broca famously identified the motor language area in the posterior inferior left frontal lobe. Although Broca had dismissed the scientific basis of phrenology, ironically his discovery corresponded (presumably coincidentally) with Gall's localisation. Gall's insights were largely unfounded, but paved the way for the theories of cerebral localisation of John Hughlings Jackson and others, which are the basis of much of modern neurology.

Professor Mark Cook



Cat. 15 **Snuffbox dedicated to Dr Franz Joseph Gall**, France, c. 1801–30; pressed walnut, tortoiseshell; 2.0 x diameter 8.0 cm. Loan from Australian Medical Association Victoria, 1994; donated 2011

DR NAPHTHINE'S MEDICINE CHEST

Dr James Naphthine (1866 – c. 1908), a general practitioner (GP) in Port Fairy and Stawell, was the original owner of this splendid wooden medicine chest. It contains the medicines, ointments and tinctures that a GP needed for home and emergency visits in the late nineteenth and early twentieth centuries.

At this time Australian GPs were known for their broad scope of practice. They would independently and competently undertake surgery, practice obstetrics, perform anaesthesia, attend accidents and treat the common physical and mental diseases. Often they undertook these activities in the home, on the farm or at the site of the event, making a portable medicine chest a necessity. The medicine chest needed to be portable, secure, robust and able to withstand the harsh Australian environment. The GP was both doctor and pharmacist. The chest would often contain a mortar and pestle for mixing compounds into tailor-made treatments that could be swallowed—by putting into food or made into a mixture for drinking—or applied externally as an ointment or tincture. The chest contained a limited variety of compounds such as ipecacuanha (a purgative), compound tincture of benzoin (for cuts and abrasions), tincture of opium (for pain relief), lactucarium (an opium substitute for pain relief), chloroform (a powerful anaesthetic), peppermint or menthol essence (to aid digestion), mercury (an ointment used for syphilis), laxatives, and cinnamon, cloves and nutmeg for flavouring medicines. A small set of scales would be used to weigh the various ingredients and make up compounds to treat diarrhoeal disease, influenza, typhoid, measles, tuberculosis, sexually transmitted infections, diphtheria, polio and scarlet fever.

The medicines contained within the chest brought more hope than cure; as it was many years before aspirin, antibiotics, antihypertensives and most of the medicines we use today would become available. Today, the GP still takes a 'doctor's bag' (made of plastic or leather, rather than wood) with a limited supply of medicines, including ipecacuanha and morphine (an opioid pain reliever), to home and emergency visits.

Professor Jane Gunn

Cat. 16 **Medicine chest**, Australia, c. 1890; wood, metal, glass, pottery, chamois, paper and chemicals;
25.2 x 46.0 x 28.0 cm. Gift of Dr S Peters, 1977





MARVELLOUS MELBOURNE: INTERNATIONAL EXHIBITION

An impressive survivor from the Melbourne International Exhibition of 1880–81, held in the Royal Exhibition Building, this display case is one of a set of three made by Charles Beecham's Melbourne cabinetmaking firm. The large showcases held the displays of local ironmonger Edward Duckett (later Edward Duckett & Sons). After the exhibition the cases were installed in the Duckett showroom in Lonsdale Street, Melbourne, remaining there until 1963 when the business closed and the cases, along with business records, came to the University of Melbourne.

The design of the display case reflects fashionable contemporaneous taste for neoclassical forms and ornament in the decorative arts. The construction is characterised by exceptionally fine cabinetwork, with superbly executed neoclassical decorative motifs, seen in the American walnut mouldings, spiral columns with gilded Corinthian capitals, and applied gilded metal rosettes. With solid panelled bases that support the glazed panels, good clear sight-lines on all four sides and tiered internal shelves, they were designed to show off their contents to maximum advantage.

The cases retain their original maker's label for Charles Beecham. The Beecham brothers (Charles and Henry) are first listed in *Sands & McDougall's Melbourne and suburban directory* in 1872 as Beecham Bros 'joiners, &c.', with the address at 146 Collins Street West. By 1874 Charles Beecham is listed in his own premises as 'shop fitting manufacturer' at 30 Post-Office Lane. He specialised in shop fittings and showcases, operating from various Melbourne addresses, while his brother Henry traded as a timber merchant. On 20 October 1879 *The Argus* reported that Charles Beecham had 'kindly promised the loan of seven glass cases free of charge' to the Intercolonial Juvenile Industrial Exhibition; on 8 and 10 August 1883 he advertised in *The Argus* to intending exhibitors at the Calcutta Exhibition that the business was 'prepared to FURNISH DESIGNS And Construct SHOWCASES and Ornamental STANDS on the most modern principle, having had many years' experience in this particular branch'. The final mention in the Sands & McDougall directory for Charles Beecham's business is in 1902, after which date the firm traded as Thomas Duff & Bros until after 1938.

Christopher Menz

Cat. 17 C Beecham & Co., **Display cases**, 1880; American walnut, pine, wood veneer, glass, metal, varnish and gilt; cases 1 and 2: 292.0 x 141.0 x 223.0 cm; case 3: 292.0 x 173.0 x 314.5 cm. Purchased from the estate of PH Duckett, 1962

THE ORIGINAL ‘SHOCK THERAPY’ MACHINE

Understanding of the nervous system and its functioning has significantly changed in the last 300 years. By analogy with the attractive forces such as gravity identified by Isaac Newton (1642–1727), Albrecht von Haller (1708–1777) coined the term *vis nervosa*. This was thought to be a nervous fluid or animal spirit flowing in hollow nerves from the brain and resulting in muscle contraction. Robert Todd (1809–1860) developed the concept of the electrical basis of brain activity, leading to the subsequent recognition of the role of electric impulses in nerve transmission. Experimenters had found that electric shocks delivered by Leiden jars (condensers) could cause subjective shocks and muscle contractions. Yet it was not until the 1950s that Hodgkin and Huxley defined the electrical processes in the generation of the neuronal action potential, central to neurotransmission.

The process of developing an electric current was simplified after the discovery by Michael Faraday in 1831 of electromagnetic induction. The availability of electromagnetic induction machines able to generate a small charge, resulting in the patient experiencing a tingling or muscle contraction in the body when holding two charged electrodes, prompted questions about the potential therapeutic benefits of electricity. A combination of enthusiasm, new scientific and engineering knowledge, patients’ hopes and the desire for wealth from therapies led in the mid-nineteenth century to the production of magneto-electric machines, where a hand crank would generate a charge that could be experienced by the patient on grasping the two electrodes. Such machines were tried and recommended for all manner of mental and physical illnesses and were the original ‘shock therapy’ machines. They were never subjected to controlled therapeutic trials however, but relied rather on individual testimonials. Reported beneficial results would have been from the placebo effect rather than any specific therapeutic activity. They fell into disrepute as inefficacious.

Though the name ‘shock therapy’ has subsequently also been applied to modern electroconvulsive therapy or ECT, the two processes are totally unrelated, with the former being ineffective, while the latter is one of the most effective treatments for some serious mental illnesses such as depression.

Professor JWG Tiller

Cat. 18 Joseph Gray & Son, **Magneto-electric machine**, 1885; brass, metal, wood, paint, cotton and paper;
box: 12.0 x 26.0 x 12.0 cm. Gift of Mrs LJ Balfour, 1967



EXTRAVAGANT CLAIMS OF CURES

Hercules Sanche (c. 1830 – c. 1920) was one of the most successful medical entrepreneurs operating in North America in the second half of the nineteenth century. Little is known of his life however, including his unsubstantiated claim that he attended medical school. The oxydonor was a successfully promoted and much copied self-healing device, claiming to cure a staggering array of diseases including female and male ‘problems’, asthma, appendicitis, yellow fever, tuberculosis and diphtheria. It was sold in Australia from the 1880s until 1912, when its importation was prohibited by the minister for customs, warning of its ‘extravagant claims’, undoubtedly because of the long-running legal challenges mounted by United States government agencies. These resulted in a conviction for fraud in 1915, and Sanche fled to Canada to avoid prosecution.

The cylinder (containing a stick of carbon in the final model) was meant to be placed between two large blocks of ice, and the discs attached to the ankle. It supposedly worked on the principle of ‘diaduction’, a natural force that operated upon, through and between living organisms, and animate and inanimate objects. The device purported to cause the body to drink freely of the oxygen through the pores of the skin and the membranes. It sold in the United States for \$35 (US\$850 in 2010 values).

Like other successful medical frauds, the oxydonor cleverly twisted contemporary science and uncertainties to its advantage. Advertisements claimed that it was for ‘intelligent, common-sense people’ because it was a gentle, safe and non-invasive therapy that ‘uses no drugs, and scorns insults to the intelligence as vaccine virus, antitoxin and similar filth’. Exploiting recent discoveries in biology (photosynthesis had been demonstrated in 1862), Sanche claimed that, as a lack of oxygen kills, therefore insufficient oxygen must cause illness. Contemporary fears of the ineffectiveness of most therapies resulted in the growing popularity of natural remedies, a mood supported by many in the medical establishment, including the University of Melbourne’s lecturer in forensics throughout this period, James E Neild. In Victoria, Melbourne-trained doctors did not discredit alternative practitioners as legitimate operators until well into the twentieth century.

Dr Ross L Jones

References: M Sullivan-Fowler, ‘The giver of oxygen: Hercules Sanche and the oxydonor’, *Journal of Medical Humanities*, vol. 17, no. 1, 1996, pp. 31–43.

Cat. 19 Dr H Sanche & Co., **Oxydonor number two**, c. 1896; metal, wire, cotton, fabric and cardboard; box: 8.0 x 12.9 x 6.5 cm. Loan from Australian Medical Association Victoria, 1994; donated 2011



MOCK FIELD HOSPITAL, SEYMOUR RACECOURSE

In 1909 Prime Minister Alfred Deakin introduced to federal parliament a Bill providing for compulsory military training in peacetime. He invited Field Marshal Viscount Kitchener (1850–1916), regarded as the British Empire's most eminent soldier, to visit Australia. Kitchener duly arrived in late 1909 on a whirlwind tour of the defence establishments of all the Australian colonies. His aim was to inspect the existing state of defence preparedness of the young Commonwealth and advise the best means of providing its land defence. Kitchener's report was submitted in February 1910 and recommended, among other things, the introduction of compulsory military training.

With respect to this photograph, more than 4000 troops and 2000 horses (from units of the Victorian Mounted Rifles) gathered at the racecourse in the Victorian country town of Seymour for the occasion of Kitchener's visit on 13 January 1910. At the centre rear can be seen several parked ambulance wagons. There appears to be no Red Cross flag to identify this collection of tents as a medical facility. The hospital would have been staffed by members of the First Ambulance Corps, probably under the command of Colonel G Home. Medical officers were members of the militia and maintained their own civilian practices. Other ranks would have been drawn from the tiny cadre of full-time personnel and the Medical Corps Reserve. Most of these men (no female nurses would have been present) would have held a St John Ambulance first aid certificate in addition to their military training. Some of those in the photograph would have seen service in the South African War of 1899–1902.

Dr Michael Tyquin



Cat. 20 R McGeehan, **Field hospital, Kitchener camp**, 1910; photograph; 30.1 x 24.5 cm.
Gift of Ms D Williams, 1976



A CALAMITOUS LOSS

No medical graduate from the University of Melbourne has been more inappropriately forgotten than Clunes Mathison (1883–1915). An internationally acclaimed medical scientist, he was the Howard Florey or Frank Macfarlane Burnet we never had.

Mathison's academic results were studded with honours and exhibitions, and he shared the final year exhibition in medicine. Venturing to England in 1908, he was awarded a Sharpey Scholarship, which enabled him to research with a renowned expert, Professor EH Starling, at the prestigious University College London. Starling had been told that Mathison was the best student to have graduated from Melbourne's medical faculty. According to Starling, Mathison 'not only maintained this reputation but added to it', producing 'a mass of original work of the highest importance' that was published in 'a rapid succession of masterly papers'. Mathison was awarded the degrees of Doctor of Medicine and Doctor of Science, and he also received one of the first Beit Fellowships for medical research, which underlined his growing international reputation. It was not just the quality of his research that was distinctive, but the way he went about it. 'Mathie' was an engaging companion with infectious energy, who had a keen interest in sport, politics and literature, as well as an encyclopedic familiarity with his research specialties. He was a 'wonderful' friend, enthused classics lecturer 'Barney' Allen. Mathie's 'cheery, chubby presence was welcome everywhere; he knew every professor and every policeman in London, and was equally at home hob-nobbing with either.'

World War I began a year after Mathison returned to Melbourne, and he enlisted in the AIF straight away. Captain Mathison landed at Gallipoli as a battalion doctor on the original Anzac Day in the same week that his appointment as the inaugural director of the new Walter and Eliza Hall Institute was finalised. This position would have suited his unique talents perfectly, but Mathison was fatally wounded on 9 May 1915. His death, wrote Starling, was an 'irreparable loss ... for the science of medicine throughout the world'. Some 60 000 Australian soldiers died during World War I. No individual loss was more calamitous than the death of Clunes Mathison.

Dr Ross McMullin

Cat. 21 Darge Photographic Company, **Gordon Clunes McKay Mathison**, 1914; photograph; 22.6 x 11.8 cm.
Gift of Department of Physiology, 1968

Causes of peritonitis Tuberc. Peritonitis

Abdominal. Sub-division.

✓ In what is gravity of abd. injury?

Postal Vote? For? Against? Cabs. Senate. Affected of gall bladder.

Causes of death?

✓ Methods of perforation of abd. contents.

✓ Treatment of abd. injuries - general.

Pain? Shock? Complications or sequelae. Diet.

Signs of "peritonium" - abd. cavity.

Note history & so of wound of abdomen.

Method of examining abd. - diag. points & tumours.

Operations upon Stomach:

✓ Spec. surg. points for g. blad. & liver work.

What are perils of peritonium.

After-treatment: contin. rest; Fowler's posit.

Open on g. blad. Surg. points in regard thereto.

Prof. W. J. P. II

Retroperitoneal cond.

Incision, sacrum; ure. & vessels; movable mass.

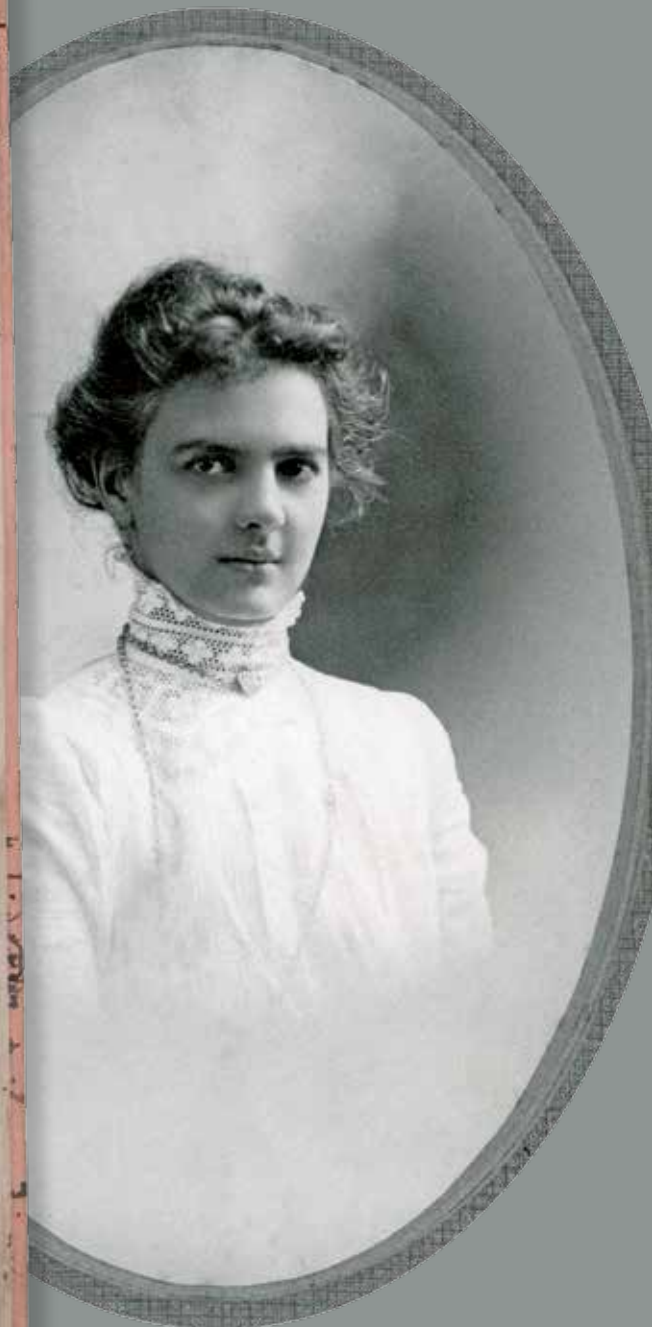
✓ Mucosal hydatid Hydatid adventitia

Fat fluid Glarus Portus Growth.

✓ Limit of movement, resp. movement of tumour.

✓ Appendic. & gastric to complications of gastric ulcer.

Gastric ulcer & cancer.



UNCOMMONLY VARIED AND DECIDEDLY USEFUL CAREER

Mary Clementina De Garis was born in Charlton, Victoria, in 1881 and graduated MBBS Melb in 1904-05 and MD in 1907. She had an uncommonly varied and decidedly useful career, including resident at the Melbourne Hospital (1905-06); Women's Hospital (1906-07); resident surgeon, Muttaborra (1907-08) and Tibooburra (1911-14); Manor War Hospital, Epsom (1916); and the Scottish Women's Hospital Corps, Ostrovo, Serbia (1916-18). From 1919 she worked as a general practitioner in Geelong. De Garis wrote continually, publishing articles in medical journals and texts on obstetrics and economics. Despite all of this, there was no obituary in any medical journal.

During World War I, the services of medical women were refused by the Army Medical Corps and Red Cross in Australia and New Zealand. This rejection and the move to France by her fiancé, Colin Gordon Thompson, motivated Mary De Garis to pay her own way to England and offer her medical skills to the war effort. Thirteen other Australian women doctors did likewise. However, at that time the Royal Army Medical Corps and British Red Cross also refused to accept women, despite the fact that female nurses had worked successfully at the battlefield since the days of Florence Nightingale. Not to be thwarted, groups of women, many of them members of suffragist movements, became involved in voluntary medical services, particularly through organisations such as the Order of St John. Three organisations were founded and run entirely by women, one being the Scottish Women's Hospital, which became the largest British medical relief organisation after the Red Cross and St John's, sending fourteen medical units to foreign soil. The Serbian unit moved to Ostrovo on 1 September 1916 and it was there that De Garis joined it. The unit worked near the Western Front, receiving many wounded from the Serbian army during its advance. From September 1916 to October 1919, 1084 operations were performed at Ostrovo, many by De Garis. In September 1917 she became chief medical officer and the officer commanding. Upon her departure she was awarded the medal of the Order of St Sava, Third Class.

Dr Carolyn de Poi

References: The introduction to this article is an edited extract from H Attwood, 'Mary Clementina De Garis (1881-1963)', *Chiron*, 1990, pp. 50-5.

Cat. 22 Mary C De Garis, **Notebooks from clinical lectures for surgery and medicine**, 1911; ink on paper and cardboard; 3 notebooks, each: 16.6 x 10.8 x 0.5 cm

‘SAWBONES’

Amputation of limbs has been undertaken for thousands of years. In the very early days this procedure was performed mainly to remove dead tissue from gangrenous limbs. The problem of haemostasis slowed advances in this type of surgery. Although the ancient Greeks and Romans learnt how to ligate bleeding blood vessels, cauterisation of the resulting surgical wounds—commonly used until then—continued for many centuries.

As is common with many surgical techniques, advancements in amputation procedures were promoted, not surprisingly, by periods of military conflict. The French military surgeon Ambroise Paré reintroduced the technique of ligation in 1529; tourniquets came into use in 1674 and anaesthesia in the 1840s. It is estimated that during the American Civil War more than 50 000 amputations were performed. As a result the Civil War surgeons became known as ‘sawbones’. Amputation techniques at that time were crude by today’s standards, and infections were common due to the absence of aseptic technique.

Two types of amputation saws have been used over the years. Tenon saws sported an ‘English’ type handle and were popular in America and England. The older bow type saw, of hacksaw construction, was the instrument preferred in continental Europe. The saw in this set of amputation instruments is of the tenon type and was probably manufactured by Simpson, surgical instrument makers, at about the turn of the nineteenth century. It is thought that the set was used in the Peninsular War (1807–14) between France and the allied forces of England, Spain and Portugal. There are some later additions; the ‘55 Strand’ inscription on the forceps provides this particular instrument with a date of manufacture after 1822 when the Simpson company moved to new premises in the Strand, London. Other pieces have come from other instrument makers including Savigny and Weiss.

Dr Jonathan Burdon

Cat. 23 Simpson, **Set of amputation instruments**, c. 1800; brass, steel, wood, cloth and natural fibre; 12 parts; box: 6.5 x 54.6 x 25.5 cm. Gift from the Raymond Russell Collection, London, by Mrs M Russell, in memory of her son, 1964



DEFEATING ‘INVISIBLE’ GERMS

The British surgeon Joseph Lister (1827–1912) was aware of the problems of contamination of wounds by germs. Between 1861 and 1865 he recognised that, despite the development of anaesthesia in 1856, more than half the amputation patients in Glasgow (where he was a professor of surgery) died from post-operative infection. Thus began his experimental work on this problem. Following Louis Pasteur’s discovery in 1865 that decay resulted from air-borne organisms, Lister realised that these same organisms were the likely source of wound sepsis.

Carbolic acid is a derivative of coal and Lister had seen it being used in Carlisle, as an antiseptic for cleaning out the sewers. To begin with, Lister’s ideas brought him a great deal of derision from his associates. He was openly mocked for his belief in ‘invisible’ germs.

In 1865 Lister first used carbolic acid on the wound of a boy with a compound fracture of the tibia. In 1869 he first described the use of a carbolic spray in an operation. He described the use of phenol in the washing of hands and also the use of sterile catgut sutures to reduce wound infection around the sutures. He invented the chromic catgut suture to extend the life of the catgut, allowing a longer period for the wound to heal. The wound infection rate fell considerably, and surgery became much safer. Carbolic acid was gradually accepted as a means of antiseptis. The spray was toxic however, with many individuals developing skin rashes and other allergies. The American surgeon William Stewart Halsted (1852–1922), an advocate of carbolic spray, overcame this problem by asking the Goodyear Tire and Rubber Company to develop rubber gloves thin enough to use but thick enough to protect the hands of medical staff from the carbolic.

Dr Laurence Simpson, OAM

Cat. 24 Arnold & Sons, **Lister’s carbolic acid steam spray**, c. 1880; brass, copper, glass, wood and varnish; 36.6 x 42.0 x 20.7 cm. Loan from Surgeon Captain SJ Lloyd, 1973



AN ACCIDENTAL DISCOVERY

Ethyl chloride was discovered by the French chemist Guillaume-François Rouelle in 1759. Soon after the introduction of ether anaesthesia in 1846, Johann Ferdinand Heyfelder, professor of medicine at Erlangen, successfully used ethyl chloride in three patients. He noted that the anaesthesia was more transient than with ether and that it was tolerated more easily, with fewer respiratory complications.

Ethyl chloride was, however, expensive and difficult to prepare, so it was not used again until 1890 when Camille Redard, professor of dentistry in Geneva, used it not as a general anaesthetic but as a local refrigerant anaesthetic, a consequence of its high volatility. Soon after, in 1894, H Carlson, a Gothenburg dentist, rediscovered the general anaesthetic properties of ethyl chloride. This was most likely due to accidentally causing general anaesthesia while administering local anaesthesia for dentistry. By this time the means of preparing and packaging the agent had been refined and it became readily available for both local refrigerant anaesthesia and general anaesthesia. The glass phial contained liquid ethyl chloride, little pressure being required to liquefy the gas at room temperature (it boils at 12.4 degrees Celsius). By directing the nozzle downwards at the skin or mucous membrane to be treated, a stream of liquid squirts out, vaporising on contact, thus producing transient local temperatures of approximately minus 10 degrees Celsius.

An exactly similar phial was used for general anaesthesia, the spray being directed into the mouth prior to the introduction of ether, or onto a gauze pad for the entire procedure. The ethyl chloride-ether sequence was a popular technique in Australia in the early twentieth century, the ethyl chloride being more pleasant than the pungent and irritating ether. The use of ethyl chloride for local anaesthesia persisted long after its use in general anaesthesia had ceased, and it could be seen in emergency departments until the late 1970s.

Dr Rod Westhorpe, OAM

Cat. 25 Woolwich-Elliott Chemical Company Ltd, **Ethyl chloride for local anaesthesia**, c. 1914; paper, glass, cardboard and metal; box: 7.0 x 20.5 x 4.3 cm; bottle: 17.0 x diameter 4.3 cm



SMITH'S PUMP: AN AUSTRALIAN INNOVATION

William Harvey proposed his theory of the circulation of the blood in 1628, but it was not until 200 years later that James Blundell of Guy's Hospital in London performed the first really successful direct blood transfusion.

War accelerates many activities and World War II renewed interest in blood transfusion. In 1939 Julian Augustus Romaine Smith was sixty-six years of age. A retired surgeon, he was one of a band of brilliant surgeons who had helped to put St Vincent's Hospital Clinical School on the map. Haematologist John Angus McLean had a rotary pump made for him by Gordon Machin, instrument maker to the Baker Institute, to a design published by Victor Riddell, surgeon to the British Red Cross. This simply designed pump depended on the serial compression of a rubber tube. Additions and refinements were made by Julian Smith and, in Australia, the pump came to bear his name.

The pump was clamped to a bench reaching between the beds or stretchers on which the donor and recipient were lying. The pump was operated manually and teamwork was essential, requiring an operator and a skilled assistant to share the various steps in the procedure. A pot of sterile saline was attached to the bench and all air in the tubing displaced by saline with a few turns of the pump. The recipient's vein was needled and a little saline run in. On the donor's side, an easily collapsible section of rubber tubing would be attached to the needle. This was really the manometer and safety valve of the operation. If delivery of blood from the donor became slow, the tubing collapsed, warning the operator who could then reduce the rate of revolution of the pump or, if necessary, discontinue the transfusion.

The Australian Red Cross transfusion service played a large part in the success of direct blood transfusion; over 11 000 blood donations were given by volunteers during World War II. In the post-war period the American scientist, Edwin Cohn, developed the technique of blood fractionation, which separated blood into its constituent parts. The birth of this new 'blood industry' meant the death of direct transfusion.

James Guest, AM, OBE, VRD

Cat. 26 Dr Julian AR Smith and Three Arrow Mark, **Smith direct transfusion pump**, c. 1930–40; plated metals, stainless steel, glass and rubber; 10.5 x 14.3 x 10.2 cm



RESUSCITATION IN BATTLE

The Soluvac transfusion apparatus was developed just before World War II by Dr Colin Wallace Ross (1904–1959) and Dr (later Sir) Ian Jeffreys Wood (1903–1986), working at the Walter and Eliza Hall Institute in Melbourne. World War II provided a real impetus to the development of blood collection, storage and transfusion. With the development of sealed bottles, storage of blood had become a practical proposition and work at the Hall Institute in the 1930s had shown that it could be stored for up to fourteen days. The Australian Army needed adequate supplies of blood and serum for its troops and selected the transfusion equipment designed by Ross and Wood to administer it.

The primary feature of this unique system was the Soluvac, a modification of the original gravity-sealed infusion sets popular in England and the United States at the time. The main difference was the Soluvac's larger capacity. It featured a 1200-millilitre bottle, as opposed to the 500-millilitre bottle common to other sets. The apparatus was mass-produced by Elliotts and Australian Drug Pty Ltd of Sydney. Enough sets were manufactured in time to form part of the medical equipment of the 16th Brigade of the Australian Imperial Force, which sailed for the Middle East on 10 January 1940. Although criticised by some for being too big to transport, its advocates countered that this was offset by its advantage of enabling the transfusion of liberal quantities of blood or other intravenous fluids.

Dr Ian Wood joined the army and trained his fellow medical officers in the use of the apparatus. During the Battle of Tobruk in January 1941 he became one of the first medical officers to use the transfusion set for resuscitation in battle. Blood donations were collected from the walking wounded and ambulance staff. The apparatus proved its worth in the Middle East and was effectively used by Australian forces throughout the duration of the war in New Guinea, the Pacific Islands and even in some Japanese prisoner of war camps.

This item was donated in 1967 by Dr Murray L Verso (1916–2010), who graduated from the University of Melbourne in 1940 and became a haematologist and medical historian.

Dr Murray W Verso

References: LM Bryce, *An abiding gladness*, Melbourne: Georgian House, 1965; College roll of the Royal Australian College of Physicians, www.racp.edu.au/page/college-roll; M Cortiula, 'Going back to the future: The origins of a national blood service in Australia', *Australian and New Zealand Society of Blood Transfusion*, vol. 5, no.1, October 1998; ML Verso, 'Fifty years of the Red Cross blood transfusion service in Victoria', *Victorian Historical Journal*, vol. 51, no. 4, 1980, pp. 218–36; AS Walker, *Clinical problems of war*, Canberra: Australian War Memorial, 1952.

Cat. 27 Dr C Wallace Ross, Dr Ian Jeffreys Wood and Taylor-Elliotts Ltd (closed 1930) to become Drug Houses of Australia Ltd, **Continuous intravenous infusion set with 'Soluvac' 1200-millilitre flask**, c. 1939; glass, plated metal, steel, other metals, rubber and cotton; 15.8 x 13.0 x 12.5 cm. Gift of Dr Murray L Verso, 1967



THAKE'S BEAUTIFUL ILLUSTRATIONS

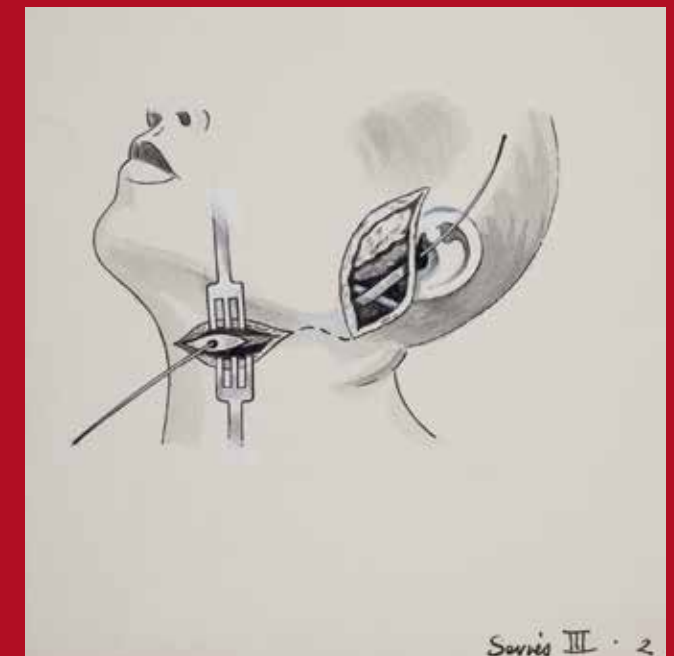
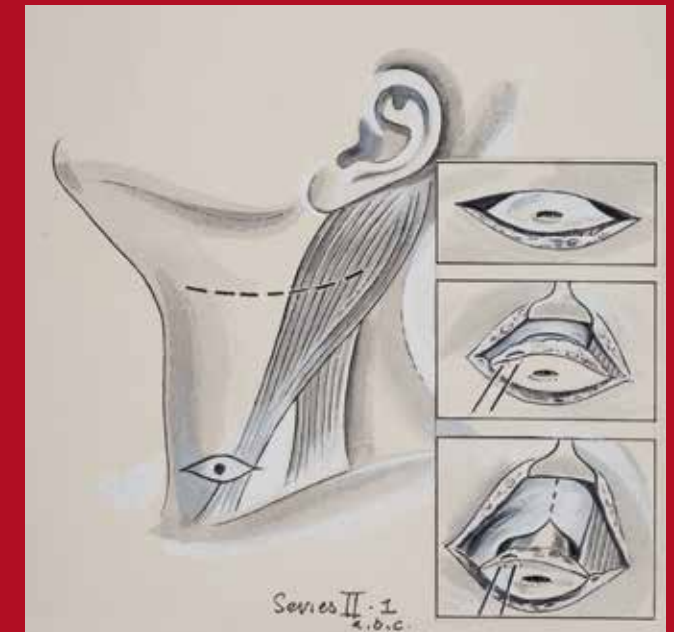
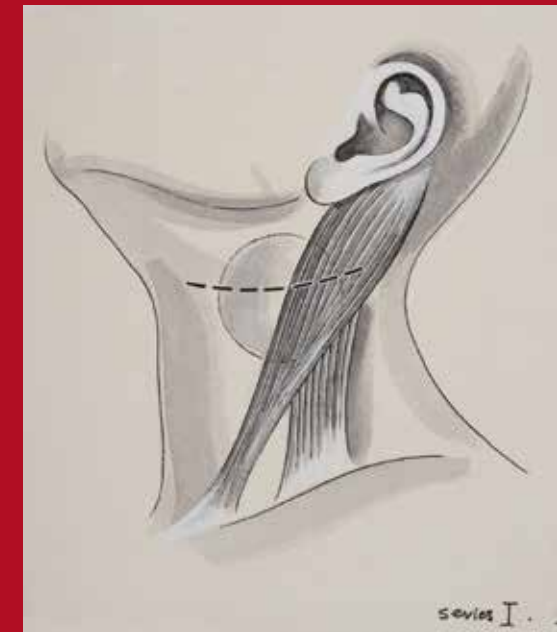
These beautiful illustrations show the surgical treatment of first and second branchial cleft anomalies. The drawing labelled 'Series I-1' (top left) demonstrates the excision of a second branchial cyst, which usually presents in babies or young adults. 'Series II-1' (top right) and 'Series II-3' (bottom left) describe the removal of a second branchial cleft fistula, to prevent dribbling saliva on the neck of an infant, as the fistula connects to the tonsillar fossa. 'Series III-2' (bottom right) depicts excision of a first branchial cleft fistula, which is connected to the auditory canal, and requires careful surgery to avoid damaging the facial nerve.

The illustrations are a classic product of their time, being expertly done by Eric Thake (1904–1982), printmaker, photographer and official war artist, in around 1960. They are not only beautifully drawn, but also demonstrate a style of surgery very close to formal dissection. This is in stark contrast to current principles of surgery, where we strive to be minimally invasive, avoiding formal dissections unless absolutely necessary.

They are also a mirror to Peter Jones (1922–1995) who commissioned the drawings. Peter had both English and American fellowships of surgery and in 1960 was the first person to obtain the Australian fellowship in paediatric surgery. During his illustrious career he was on the council of the Royal Australian College of Surgeons (1987–95) and the Medical Defence Association of Victoria (1974–88), and was president of the Australian Association of Surgeons (1983–86). He was a legendary medical historian and a great raconteur, but will be remembered primarily as the author of the first three editions of what is now commonly called *Jones' clinical paediatric surgery*, the 'bible' for medical students about surgical problems in childhood.

Professor John M Hutson, AO

Cat. 28 Eric Thake, **Four illustrations of surgical procedures**, c. 1960; watercolour, gouache, ink, correction fluid, pencil, biro, Letraset, clear film on board. Gift of Mr Peter Griffith Jones, 1989



DISCOVERY OF THE USE OF LITHIUM

John Cade (1912–1980) had his first experience in psychiatry in 1938, when he was appointed as the sole medical officer at the Beechworth Lunatic Asylum, as it was then called. He was only twenty-six years old. In those days, the large mental hospitals were primarily custodial institutions, as there was no effective therapy for most psychiatric illnesses. But he was shocked to discover the amount of unrecognised medical illness among the patients (such as hypothyroidism, scurvy and pellagra), and this reinforced his view of the holistic needs of the mentally ill.

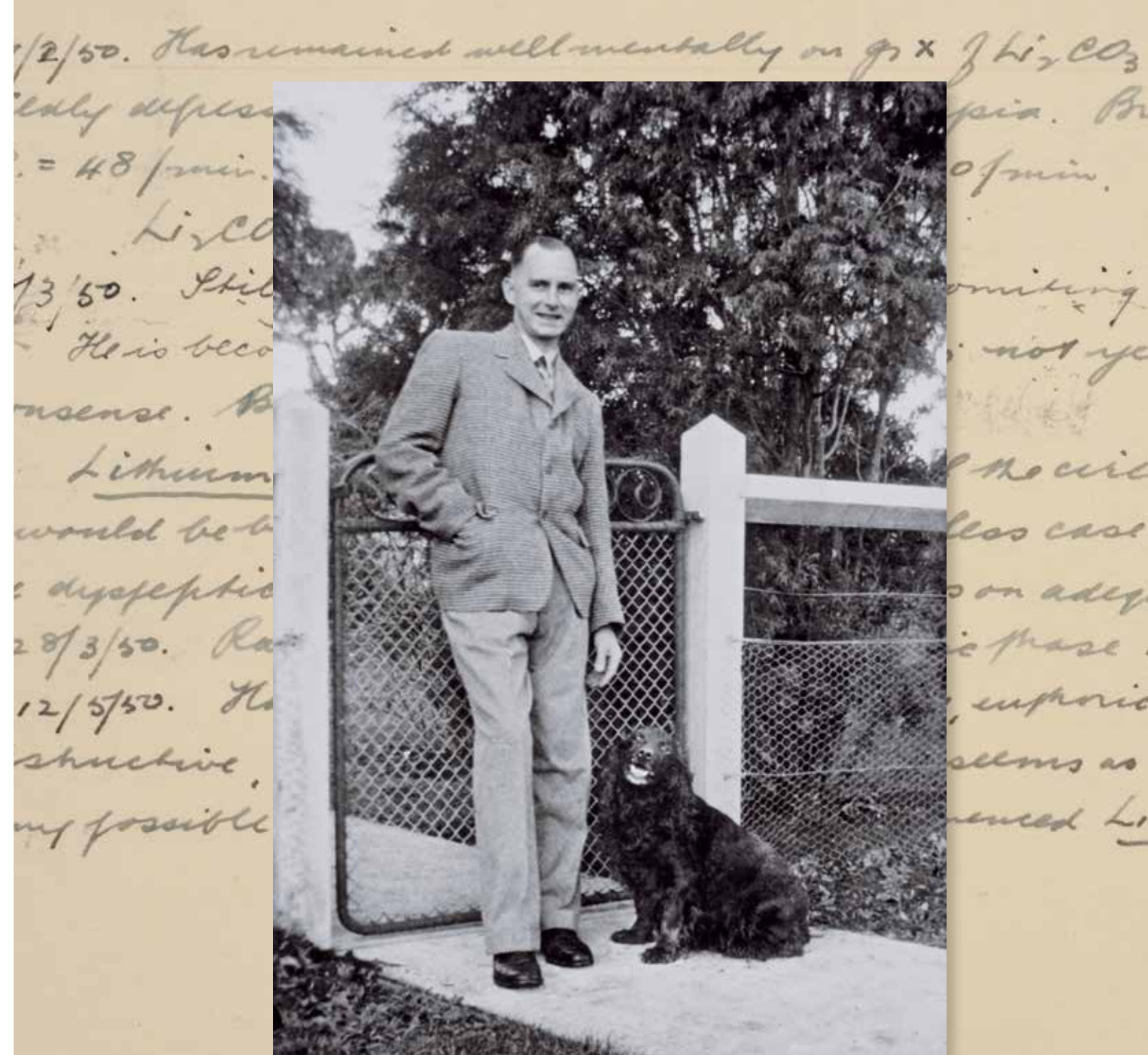
In 1941 Cade left his young family in Australia to serve in an army field ambulance. He survived internment in the notorious Changi prison camp, returning to medical practice at the Bundoora Repatriation Mental Hospital. His theory at this time of the possible aetiology of manic-depressive illness and his discovery of lithium for its treatment are well-known. After all, psychiatry—like all medical specialties—had to be founded on good clinical medicine, and the parallel of mania and depression with thyrotoxicosis and myxoedema struck him as compelling. His sequence of investigations followed the universal principles of good medical research: a well-considered theory, experimental study (in guinea pigs), imaginative follow-up of an unexpected finding, volunteer assessment of safety (in himself, to his wife's dismay), clinical evaluation in suitable patients (with meticulous records, as exemplified in the collection), publication of the results in an appropriate journal, and later collegiate and confirmatory research. His discovery of the use of lithium in manic-depressive illness is one of the great Aussie yarns. With typical modesty, he used to say that he was just an old prospector who put his hand into the barrel and happened to pull out a nugget. But his discovery was no fluke. As Pasteur said, 'chance favours the prepared mind'.

Cade's discovery ushered in the modern era of psychopharmacology in psychiatry. In just a few years, it was followed by the introduction of the first major tranquilliser (chlorpromazine) and the tricyclic antidepressants. The building blocks of psychopharmacology for the three major psychoses were now in place, and care for the mentally ill had been irrevocably changed.

Professor John F Cade, AM

Cat. 29a John FJ Cade, **Patient record cards of lithium treatment**, 1948–50; ink on paper; 17 cards, each: 12.8 x 20.4 cm. Gift of Mrs John FJ Cade, 1981

Cat. 29b Mrs John FJ Cade, **John FJ Cade and dog at Bundoora Repatriation Hospital**, 1948; photograph; 17.7 x 12.6 cm. Gift of Mrs John FJ Cade, 1981



NOTES ON A NOTEBOOK

In mid-1945, a seventeen-year-old student in Dundee, Scotland, commenced a journal in which would be 'inscribed, in halting rhyme, the private thoughts of one Harold D. Attwood'. The first few pages are devoted to florid poetry. Wordsworth wrote of daffodils; Harold composed verse 'To a Buttercup'. Attwood (1928–2005) began 1949 as a medical student determined to keep a journal, starting with a review of the past year. Previously, he had found a journal 'rather a rigorous duty'. So it would prove again. But some entries are eloquent, such as one (11 January 1949) describing the post-mortem of a seven-month-old baby. 'She was the bonniest girlie with large eyes that still were clear and seemed to look at you. She was just like the most perfect doll that had ever been made—perfect externally and yet right from her birth it was almost certain she would not see her first birthday.' How could God allow such a thing? 'It just does not make sense.'

On New Year's Day 1952 he recognises the need to make a decision: 'whether I should become a clinician or a medical scientist'. The journal ends with a review of 1953, the dawning of 'the second Elizabethan age'. He describes it as 'truly a year of wonder', I suspect because it was the year he met his wife-to-be, Isobel Butters, at the Dundee Royal Infirmary and finally clarified his sense of vocation, working as an assistant in the pathology department of the University of St Andrews. The last entry stops abruptly, mid-sentence, though there are later pencil annotations (correcting diagnoses, for example), which suggest this notebook was not forgotten. Its existence comes as a surprise to his family. Then again, he was a man who seldom threw anything out. And it is entirely appropriate that it is now part of the collection of the Medical History Museum, of which he was, proudly, the curator until 1997. That young student, wrestling with the usual doubts about life and love and religion, became a pathologist, a teacher, a husband, a father and a historian. He was better at all those things than at poetry.

Alan Attwood

Cat. 30 Harold D Attwood, **Notebook**, 1945–53; ink, pencil on paper, card; 13.0 x 20.5 x 1.2 cm. Gift of Attwood family, 2004. Professor Harold D Attwood Collection

Ensnared by this world's sweat and tears
Into oblivion these thoughts fall —

Yet, now, with onrushing years
Ensnared by this world's sweat and tears,
Into oblivion these thoughts fall —
Yet — sometimes — at set of sun, recalled.
It is in these dim visions rare
That I dwell, when all the air
Is enshrouded with dim rays of light,
Day yields place to conquering Night.

Destined Life 31/3/46

Is it not strange that in this life of hours,
Amidst this world's enshrouded gloom
That even in our happiest hours
The warp and woof pre-show our tomb?
For these ever wedding sisters,
Even before our entrance in,
Have encompassed all our wanderings
And safely brought us back to Him.

A Thought and Another 3/46

Is there not music in the throbbings of
the soul
That stir, deep down, in our inmost
being?
That thence, unflinchingly, controls the
deing of our being whole.
And oft, to guide us to our harm,
prevent our seeing
Those milestones of impediment.
Yes, it is a music terrible in strain
That even in crescendo seems to wane.

And is it lonely there on yonder moon,
* That floats on high on airy wing
Enframed in deep banks of bloom
And with these cold stars arranged?
Yet, when Phoebus in his chariot of dawn
Careereth through yon Eastern gate
Tis then your lonely work is done
For another night you've but to wait.

+ That soars way high on fairy's wing

APOLLO, PATRON OF APOTHECARIES

The demand for apothecaries' storage vessels of high quality was an important factor in the growth of the ceramic industry in England, as it had been in continental Europe. Potters making glazed pottery for apothecaries came to England from Antwerp in 1567, and by the mid-seventeenth century, London apothecaries were being supplied from potteries set up on the south bank of the Thames, particularly at Lambeth. The dominance of Delft as the main centre of production in the Netherlands from about 1640 ensured its influence on later English drug pots, with their symmetrical blue-and-white decoration around a scroll announcing the contents. Pottery painted mainly in cobalt blue on a white background of lead glaze opacified with tin oxide has become known as 'delftware'.

This English jar shows the head and shoulders of a cherubic figure wearing a halo of rays. It signifies the god Apollo, patron of apothecaries. According to the Latin motto from Ovid that was used by the London guild of apothecaries, Apollo was 'help-bringer throughout the world'. The full passage from Ovid hails him as discoverer of medicine and master of the power of herbs. Apollo's head is flanked by jaunty birds as loosely related to peacocks as the cherubic Apollo is to his Greek representations. The Latin label designates a rob (thick liquid preparation) of elderberries (*Sambucus nigra*). To make this, the juice of pounded berries was boiled down until it reached a honey-like consistency. (The aromatic flowers of the plant were used in the preparation of scented waters.) Elderberries were considered a medicine against respiratory illness and were also regarded as useful in the external treatment of wounds.

The specifications for English apothecaries' preparations were laid down in the London pharmacopoeia first issued by the College of Physicians in 1618, and in revised editions up to 1851. The physicians' control was established earlier, in 1518, when they were given the right to inspect apothecary shops and destroy defective drugs.

Margaret Legge

Cat. 31 **Jar for elderberry juice**, England, late 17th century; glazed earthenware; 19.6 x diameter 14.4 cm.
Russell and Mab Grimwade Bequest, 1973



INSPIRED BY SYRIA

The colourful *maiolica* of Italy flourished in the Renaissance. Its white tin glaze and newly developed range of colours were used in a variety of regional styles, showing the vitality of the Renaissance artistic achievement in both stylised designs and figurative decoration. The technique was spread by Italian artisans and welcomed and naturalised throughout Europe as *faïence* in France (from Faenza), and later as delftware. Sicily has a long tradition of glazed earthenware production, with important centres in Palermo, Trapani and Caltagirone. The city of Caltagirone flourished in the sixteenth and seventeenth centuries, when it had a fine hospital and a university which taught medicine alongside law and philosophy. At its height there was a population of about 20 000 and it has been estimated 1000 people were employed in its potteries. Though Caltagirone declined because of a famine in 1671 and was then destroyed by earthquake in 1693, it remains well-known for its ceramics.

The *albarello* (the etymology of the term is disputed) is a shape which appears in much earlier storage jars from Syria and elsewhere in the Arab world, whence also came most of the apothecary's exotic drugs before the discovery of new sources in the Americas. It was used as a storage vessel for the solid materials kept by the apothecary, alongside spouted pots for syrups, wooden boxes and glass vessels, sometimes wrapped in straw to prevent breakage, in the manner of the traditional chianti bottle. The tall, waisted form provided a secure grip for the apothecary dispensing its contents. These two jars would have been part of a set lined up on open shelving to make a fine display. The exuberant design is influenced by the style of Venetian pharmacy jars from the sixteenth-century workshop of Domenego da Venezia. (There are several in the museum at Messina, Sicily, one signed and dated 1562.) These bold florals were imitated also by potters who supplied the important centre of medical learning at Montpellier in France.

Margaret Legge

Cat. 32 **Pair of albarelli**, Italy, 17th–18th century; glazed earthenware; a: 23.2 x diameter 12.0 cm; b: 23.0 x diameter 11.5 cm. Loan from Graham Roseby, 1965; gift of the estate of Graham Roseby, 2009



UNOFFICIAL AUSTRALIAN COAT OF ARMS

Lavishly decorated show jars and transparent vessels filled with brightly coloured liquid (carboys) formed the characteristic window decoration of the shops of nineteenth-century apothecaries, chemists and druggists and continued to attract customers to pharmacies well into the twentieth century. The large-scale glass specie jars were set to impress behind the newly introduced large plate glass windows of the period. The present example is in the form of a lidded vase tapering above a socle foot. Cylindrical lidded jars were also popular. Both types were commonly decorated with the British coat of arms, utilising transfer printing and extensive gilding. They were generally painted on the inside as would be necessary in order to block light from damaging the contents of a glass drug jar, although they seem to have been used for advertisement only.

This unusual specie jar is decorated with an Australian coat of arms, one of the several unofficial coats of arms used before the Federation of the Australian colonies in 1901 (and fairly similar to one preserved today in the insignia of the Australian cricket team, adopted in 1890). The shield shows a red cross with five six-pointed stars, the quarters displaying symbols of Australian agriculture, mining and shipping: the golden fleece, a clipper ship, an anchor with a shovel (perhaps representing the goldfields, since in other versions there is a pick instead of the anchor) and a sheaf of wheat. The shield is supported by an emu and a kangaroo, naively drawn by an artist who was evidently still searching for an adequate form for such strange fauna. In the background is a landscape of plants including possibly a cabbage tree palm, but the various species are not securely identifiable. The popular motto 'ADVANCE AUSTRALIA' appears on a scroll between the shield and the crest which shows an animate sun with rays. Below is a scroll with the label 'TOILET ARTICLES'.

Similarities to a jar bearing Australian pre-Federation arms, now in the Powerhouse Museum, Sydney, and made by York Glass Works, England, suggest a similar origin.

Margaret Legge

Cat. 33 **Specie jar**, England, c. 1880; glass, gold leaf, transfer and paint; including lid: 66.0 x diameter 24.0 cm.
Loan from the Pharmaceutical Society of Australia, Victorian Branch, 1964; donated 1986



COLONIAL SNAKEBITE KIT

The history of snakebite first aid stretches back into antiquity. Surprisingly, despite modern research, many of these old ideas have persisted until very recently. For example, the ancient Egyptians promoted lancing of the bite site—a dangerous practice still seen in many countries. The Greek homeopathic concept of theriac, or universal antidote, was co-opted by the Romans and persisted into the late nineteenth-century European pharmacopoeia. The popularity of this luxury therapy (it could contain up to seventy-three ingredients) is evident upon a quick perusal of the contents of the Savory and Moore pharmacy in the Medical History Museum; several references to such preparations can be found scattered in the collection that dates from the 1880s. William Harvey (1578–1657), he of *De motu cordis et sanguinis*, and a pioneer of experimental toxinology, was focused on more scientifically based, albeit equally brutal, measures to interrupt venom transport when he wrote: ‘in the bite of serpents ... a man might be saved if a very strong ligature were made above the wound immediately and the mortified part below the ligature were cut off presently.’

Remarkably, ligature, incision, amputation and a variety of ‘antidotes’ (including mercury and medicinal brandy) remained the staple of medical recommendations into the twentieth century. At this University, George Britton Halford contributed to the confusion by doggedly promoting the use of intravenous ammonia for snakebite, based on his mistaken ‘germ theory’ of snakebite poisoning. Tragically, but unsurprisingly, occasional iatrogenic deaths occurred, including the 1912 death of a child injected with strychnine.

This exhibit represents one of many early Australian ‘snakebite kits’. Many featured lancets for incision combined with suction devices and/or antidotes such as Condy’s crystals. This particular one contained chloride of lime for injection. It is satisfying to note that a graduate of Melbourne Medical School, Struan Sutherland, finally transformed this field when he proposed the pressure-immobilisation technique in 1979, which combines limb bandaging, splinting and immobilisation and remains the standard for snakebite first aid in Australia.

Dr Ken Winkel

References: DA Warrell, ‘To search and study out the secret of tropical diseases by way of experiment’, *Clinical Medicine: Journal of the Royal College of Physicians of London*, vol. 1, no. 6, November–December 2001, pp. 485–94; P Hobbins, ‘Snake germs and Professor Halford’s webs’, *University of Melbourne Archives Bulletin*, no. 29, 2011, pp. 3–5; G Croll, ‘Death from strychnine poisoning after snake bite’, *Australasian Medical Gazette*, vol. 32, 1912, p. 189; SK Sutherland *et al*, ‘Rationalisation of first-aid measures for elapid snakebite’, *Lancet*, 27 January 1979, pp. 183–6.

Cat. 34 Felton, Grimwade & Co., **Chloride of lime antidote for snakebite**, c. 1895–1900; glass, metal, leather, wood, paper and cloth; case: 3.1 x 12.7 x 9.2 cm. Loan from Australian Medical Association Victoria, 1994; donated 2011



PENICILLIN AS A LIFE-SAVING THERAPY FOR CIVILIANS

On 24 August 1940 an editorial in *The Lancet*, accompanying an important article from Howard Florey's Oxford research group, noted that '... in penicillin, we have a new potentially powerful chemotherapeutic agent'. However, a vast amount of work remained to be done to turn this discovery into a life-saving therapy. Australia's war cabinet approved scale-up and production of penicillin by the Commonwealth Serum Laboratories (CSL) in September 1943. Dr Val Bazeley, head of the project, set his team heroic deadlines to produce penicillin at the CSL site in Parkville, Melbourne. By Christmas 1943 phials of the life-saving antibiotic were flowing north to the war zone. Two months later significant amounts of penicillin were being supplied to troops and by May that year production had been ramped up to 400 million units a week. This allowed the *Commonwealth Gazette* of 3 May 1944 to announce the use of penicillin for the treatment of life-threatening infections in the Australian civilian population—a world first.

This product was the original benzyl penicillin, or penicillin G, which had to be given by injection. Penicillin was produced by growing the organism in culture bottles. Bazeley initially produced batches of 750 bottles a day. By 1948, when bottle culture was abandoned in favour of larger scale deep fermentation, production reached 44 000 bottles a day. This rare ampoule is from one of the earliest batches of penicillin to be made available to Australia's civilian population. It has a use-by date of 1 August 1944 and would have been manufactured earlier that year at CSL in Parkville. Potency was measured in Oxford units, defined by Florey. One Oxford unit was the smallest amount of penicillin that would inhibit in vitro the growth of *Staphylococcus* in 50 millilitres of culture medium. One milligram is equivalent to around 1667 Oxford units of penicillin G. This phial contains 100 000 Oxford units, enough to treat a life-threatening infection in divided doses for one day.

The donor, Vivian F Davey, was a member of the original manufacturing team and later rose to become technical director of CSL.

Dr Andrew Cuthbertson

Cat. 35 Commonwealth Serum Laboratories, **Ampoule of sodium penicillin G**, 1943; glass, paper and penicillin; 15.5 x diameter 3.0 cm. Gift of VF Davey, Commonwealth Serum Laboratories, 1968



A SIMPLE INVENTION

Listening to the sounds of the heart, lungs, bowel and blood vessels (auscultation) has been an essential part of medical diagnosis for hundreds of years. Until the invention of the stethoscope by René Laënnec in 1816 however, auscultation was performed by placing the ear directly on the chest wall, generally using a handkerchief placed on the skin.

Laënnec was a French physician, born in Quimper in 1781, who received his medical education from, among others, Jean-Nicolas Corvisart (Napoleon's physician), who had a great interest in physical diagnosis. In Laënnec's landmark treatise entitled *De l'auscultation médiate, ou, Traité du diagnostic des maladies des poumons et du coeur* (On mediate auscultation, or treatise on the diagnosis of the diseases of the lungs and heart) he described the use of a piece of rolled-up paper to listen to the heart of a young overweight woman. He was inspired to use this simple device while watching children playing with a hollow stick in a park. Laënnec followed up on his use of the rolled paper by using his carpentry skills to build a hollow wooden cylinder, 25 centimetres in length and 2.5 centimetres in diameter, which he named a stethoscope (from the Greek *stethos* meaning chest and *skopos* meaning observer). He presented his findings on the clinical use of the stethoscope to the Académie de Médecine in 1818 and subsequently published his treatise a year later. Like many advances in medicine, his invention was initially met with some scepticism, with one professor of medicine stating in 1885: 'He that has ears to hear, let him use his ears and not a stethoscope.'

This example is a Priory stethoscope, one of many variations made on Laënnec's original design. Eventually this monaural version was supplanted by the more flexible and effective binaural stethoscope, which is still in use today and remains a symbol of the profession.

Professor Geoff McColl

References: JR Scherer, 'Before cardiac MRI: Rene Laennec (1781–1826) and the invention of the stethoscope', *Cardiology Journal*, vol. 14, no. 5, 2007, pp. 518–19; A Fayssol, 'René Laennec (1781–1826) and the invention of the stethoscope', *American Journal of Cardiology*, vol. 104, no. 5, 1 September 2009, pp. 743–4.

Cat. 36 **Monaural stethoscope**, 1885; wood, bakelite; irregular: 17.9 x diameter 6.9 cm



AN INVASIVE PROCEDURE

Use of the aspiration syringe would have been an invasive and dangerous procedure performed on a seriously ill patient suffering from an infection. With its long needle or trocar, the syringe was used to drain from within the abdominal or thoracic cavities a deep-seated abscess, pleural effusion, or mass of infected matter collecting from a wound. Before the development of antibiotics to fight the microorganisms responsible, the physical removal of the offensive material by aspiration was all that could be attempted. Morphine, quinine (and aspirin by the 1890s) might reduce the symptoms of pain and fever, but thereafter good nursing care and the patient's own constitution would decide their fate.

This example was one of a collection of instruments contained in the medical bag of Dr James Jamieson. Jamieson, a graduate of Glasgow University, arrived in Australia in 1868, practising in Warrnambool before settling in Melbourne in 1877, where he soon became established in the professional life of the city. He became an active member (and later president) of the Medical Society of Victoria, and was appointed city health officer. He also lectured in obstetrics and later medicine at the University of Melbourne.

Jamieson was a dedicated and vocal campaigner for the germ theory on the origin and transmission of infectious disease, and for the antiseptic reforms of Lister, which he expressed in journal articles and at Medical Society meetings. As city health officer he argued for the adoption of these principles in the Melbourne and Lying-In hospitals, where overcrowding and unsanitary conditions led to high mortality rates from erysipelas and puerperal fever. Jamieson recognised that puerperal fever, like erysipelas, was a wound infection and that safe midwifery depended, as did any surgical procedure, on the antiseptic principles of skin cleanliness, and on the disinfecting of any examining hand or instrument. At some stage after Jamieson's retirement or death (1916), his instruments and professional records were given to the Medical Society of Victoria (which later became the Victorian Branch of the Australian Medical Association), as a reminder of his significant contribution to improvements in public health in Melbourne.

Ann Brothers

References: J McCalman, *Sex and suffering: Women's health and a women's hospital: The Royal Women's Hospital, Melbourne, 1856–1996*, Melbourne University Press, 1998; E Bennion, *Antique medical instruments*, London: Sotheby Parke Bernet, 1979; *The syringe* (exhibition catalogue), Centre for Health and Society, University of Melbourne, 2006.

Cat. 37 Arnold & Sons, **Aspiration syringe**, 1888; steel alloy, glass, rubber, leather and silk; case: 2.0 x 13.2 x 6.0 cm. Loan from Australian Medical Association Victoria, 1994; donated 2011



A GOOD CLEAN CUT

This set of eye instruments is presented in a morocco leather case lined with silk velvet. The manufacturer is John Weiss & Son, London. John Weiss can be traced to an Austrian family of cutlers who had been instrument makers since the early eighteenth century. He migrated to London and established his own company in 1787, quickly becoming known as a maker of high quality instruments, patronised by the leading surgeons of the day.

Sets such as this were produced by Weiss over a number of years, usually being supplied to surgeons commencing practice and needing a range of commonly used instruments. Larger sets were supplied to the governments of overseas countries such as Egypt and India. This particular set is illustrated in Weiss catalogues from 1898 to 1948, although there have been various additions and subtractions from the original set shown in the catalogues.

The most prominent feature of this set is the ivory handles of the instruments in the top rack, ivory being the preferred material for knife handles prior to the introduction of stainless steel. Most of them are for intraocular operations and probably date from the early twentieth century. The most important of them would be the six Graefe cataract knives, used for making an incision through the upper junction of the cornea and sclera. As cataract surgery was carried out with minimal or no magnification, a perfectly sharp blade was essential to give a good clean cut. The knives manufactured by Weiss were considered the best in the world and could be used numerous times and still retain their edge. The other instruments in the top layer are concerned with other parts of cataract surgery and glaucoma. The lower compartment contains a variety of instruments such as forceps, scissors, clamps for eyelid operations and needle holders to be used for other common procedures. Also included is a packet of needles labelled 'Curved needles for the eye'. All of these date from the early twentieth century.

Dr James Martin

Cat. 38 J Weiss & Son, **Set of ophthalmic instruments**, c. 1890s; iron, metal, ivory, wood, velvet, leather and paper; case: 5.0 x 25.4 x 17.4 cm. Gift of Mrs AM Hill through Professor GW Crock, 1979



DISTINGUISHED BUILDINGS AT THE UNIVERSITY OF MELBOURNE

Victor Cobb (1876–1945) is an Australian artist known for his depictions of life in Melbourne in the early twentieth century, and admired for his expertise as a printmaker. His contemporaries were Ernest Moffitt (1871–1899), Norman and Lionel Lindsay (1879–1969 and 1874–1961), Jessie Traill (1881–1967) and John Shirlow (1869–1936), all of whom were influenced by the etching revival introduced to England by James McNeill Whistler (1834–1903) and Seymour Haden (1818–1910). The etching revival sought to recapture the originality and technical skill of the old master printers, in particular Rembrandt (1606–1669) who was instrumental to the advancement of the technique of etching. Etching was still a relatively unknown medium in Australia and Cobb was able to adapt tools and invent presses in order to produce his images, which were created by inscribing into a ground prepared on a copper plate, then immersing it in an acid bath. He became a pioneer of the technique in Australia and like the English artists he drew directly from his surroundings.

Among Cobb's output of landscapes, architecture and vistas of Melbourne is a collection of etchings depicting the distinguished buildings at the University of Melbourne. As can be seen in his print of the School of Physiology, entrances were a feature of his work. In 1921 physiology was located in the second-storey extension of the old Medical School near Swanston Street. Cobb also made etchings of the majestic Wilson Hall which subsequently burned down. The Elisabeth Murdoch Building (Old Pathology) is one of the remaining original buildings of the old medical precinct after medicine was moved in 1968 to new, purpose-built premises facing Grattan Street. Cobb's prints show us important historical evidence, as well as providing us with insights into the development of Melbourne and its printmakers.

The author wishes to acknowledge the assistance of the History of the University Unit in preparing this article.

Kerrianne Stone

Cat. 39 Victor Ernest Cobb, **School of Physiology**, 1921; etching on paper; 17.2 x 15.8 cm



A PLAIN LITTLE MICROSCOPE

This plain little microscope, manufactured from brass, glass and wood, was a gift to the University of Melbourne from Carl de Gruchy in September 1974.

Although the date of its manufacture is uncertain, the microscope's construction is consistent with the design of those drawn and made by Antonj van Leeuwenhoek in the latter part of the 1600s in the Netherlands. The simple instrument uses one lens, mounted in a hole in the brass plate that makes up the body of the apparatus. The specimen is mounted in front of the lens, on the sharp point that sticks up at the front of the apparatus, its position and focus adjusted by turning the two screws. The specimen is viewed through the lens by holding the device in the hand, close to the eye. Good light and considerable patience are needed to operate the microscope successfully.

Professor Carl de Gruchy, a 1944 Melbourne medical alumnus, was a Beane scholar in 1946 and took out his Doctor of Medicine degree in 1948. His early days spent at St Vincent's Hospital in Melbourne were followed by postgraduate work in London and a Rockefeller Fellowship in the USA. He returned to Melbourne in 1952 and began a distinguished career specialising in haematology, based at St Vincent's and the University of Melbourne. Described in the *Australian dictionary of biography* by fellow St Vincent's alumnus Bryan Egan as 'a good clinician, an excellent teacher and speaker, and an administrator who would have preferred to be engaged in research or treating patients', Carl de Gruchy was a cultured, sociable man. His gift of this simple but important medical artefact conveys to us his feeling for the history of his specialty and its significance in the development of medical research and practice. He retired from the chair of medicine at St Vincent's in 1970 but maintained a close relationship with the hospital, the Melbourne Medical School and the University until his untimely death from cancer in October 1974, not long after making this gift.

Professor James D Best

Cat. 40a **Simple microscope after Antonj van Leeuwenhoek's design of 1674**, Netherlands; brass, glass; 11.9 x 6.0 x 6.9 cm. Gift of Professor Carl de Gruchy, 1974

Cat. 40b Medallie Art Co., **Antonj van Leeuwenhoek commemorative medal**, c. 1970–72; bronze; diameter 4.5 cm x 0.8 cm



INTENSIFYING THE LIGHT

Microscopy with early microscopes was usually performed in daylight hours with light reflected from a mirror through a condensing lens to the slide or object being studied. Later other sources of light were used, with spirit lamps and then electric lamps designed specially for the purpose. With this kerosene lamp the intensity of the light could be adjusted by varying the length of the wick, and the height of the light altered to suit the angle of the microscope. The tall chimney would have prevented fumes and smoke particles from obscuring the microscope lenses or damaging the specimen under study. W Watson & Sons Ltd were opticians, camera and microscope makers based in London and Edinburgh. The firm was founded in 1837 and closed in 1956.

Microscopes today generally have their own built-in electric light source; the intensity of light may be varied using a resistor or iris diaphragm. The Victorian Electric Light Company was formed and built a small power station in Russell Place off Bourke Street in 1880. Harry Brookes Allen (1854–1926), professor of anatomy and pathology at the University of Melbourne, would not have had electricity in his department when he was first appointed; on dull days or at night the lamp would have been the main source of illumination for his microscope.

Associate Professor Dr John Hayman

Cat. 41 W Watson & Sons Ltd, **Kerosene microscope lamp**, c. 1880; brass, metal and glass; 32.5 x 14.3 x 12.7 cm. Gift of Professor George S Christie, 1968





PROFESSOR GEORGE BRITTON HALFORD'S MICROSCOPE

This Powell & Lealand compound monocular and binocular microscope was purchased for George Britton Halford by the University of Melbourne in 1864 from the Reverend John Bleasdale (1822–1884), a prominent Catholic clergyman and an active member of the Microscopic Society of Australia. The stand was protected against corrosion with brass and silver plating, then gilded with half an ounce of pure gold. The walnut case includes side compartments. Halford's granddaughter, Mrs Dorothy C Banks, donated the microscope to the Medical History Museum.

Born on 26 November 1824 at Petworth, Sussex, by 1857 Halford held the position of lecturer in anatomy at the Grosvenor Place School of Medicine, attached to St George's Hospital. There his research into the mechanisms and sounds of the heart in animals, birds and man was regarded as a work of high importance. In 1862 he was selected for the first chair of anatomy, physiology and pathology at the University of Melbourne, at which time he was described as 'one of the most distinguished experimental physiologists of the day'. Halford landed in Melbourne in December 1862. He was initially dismayed by the poor scientific content of the first-year medical course devised by the Medical School Committee before his arrival. For the first seven years he was the sole full-time lecturer, and the only lecturer in anatomy. He started with three students, with classes increasing over the next fifteen years to around seventy and then to 180 students by the early 1880s. By 1871 he was president of the professorial board of the University of Melbourne, in which role he attempted to allow women to attend the University. This plan was quickly scotched, a situation which was not remedied until 1881.

The Faculty of Medicine was established in 1876 and Halford was elected dean. A professor of anatomy and pathology was appointed in 1882 to share the heavy workload, while Halford became professor of physiology and histology. Ill-health led to his retirement and he died on 27 May 1910, survived by his wife Louisa and nine of their twelve children. His lasting contribution was to the high standard of the study of medicine in Australia, and the creation of a great medical school.

Jo Monie

Cat. 42 Powell & Lealand, **Compound monocular and binocular microscope**, c. 1864; glass, brass, silver and gold; 46.2 x 24.4 x 16.7 cm. Gift of Mrs Dorothy C Banks, granddaughter of Professor George Britton Halford

A GARDENER'S BRILLIANT INNOVATION

In the latter half of the nineteenth century, optical microscopes were in widespread use and were making significant contributions to science. Unlike the slick microscopes made today, these early models did not have electronics or monitors to help present accurate images. Nor did the viewer have a clear measure of the magnification provided by the scope.

To calibrate a microscope, an object of known dimensions needs to be placed under the microscope and a conversion factor needs to be determined. For the microscopes of the day, such a test object would need to have features evenly spaced at intervals in the range of $\frac{1}{1,000}$ to over $\frac{1}{100,000}$ of an inch. In the 1890s such objects were very difficult to produce. Henry Joseph Grayson (1856–1918) was trained as a gardener and had a keen interest in microscopy for botanical studies. At the time, microscopes were calibrated using rulings—slides with evenly spaced lines of known pitch (pitch is the distance from the centre of one line to the centre of the next). But the available rulings were not adequate for accurate measurements, prompting Grayson to construct a new type of machine to produce precision rulings. Grayson's first version of a micro-ruling engine was made from wood and glass, and was capable of producing as many as 40 000 lines per inch. These lines were cut using a small fragment of diamond and their quality far exceeded any others available at the time. The rulings made by Grayson were of such high quality that Carl Zeiss had him produce a test plate with 120 000 lines. At the time, Zeiss was investigating the theory presented by Abbe which predicted an ultimate limit to how small a microscope could see based on the wavelength of the light used. Many readers would know that Zeiss is now a world-leading producer of optical microscopes, cameras and lenses.

In the early 1900s, Grayson became a member of the Faculty of Science at the University of Melbourne. Micro-ruling engines made by Grayson still exist and are held in the School of Physics Museum and the Medical History Museum.

Dr Shane Huntington

References: HC Bolton, 'Grayson, Henry Joseph (1856–1918)', *Australian dictionary of biography*, vol. 9, Melbourne University Press, 1993.

Cat. 43 William Stone, **Henry J Grayson with his micro-ruling engine**, c. 1912; photograph from negative plate; glass, paper and cardboard; 12.6 x 17.3 cm. Gift of the estate of Mrs M Murray



STONE'S X-RAY TUBES

In 1895 Wilhelm Conrad Roentgen showed that, for fifty years, scientists using Crookes tubes to study electricity had been unknowingly producing penetrating X-rays with the potential to make photographs of the living skeleton. The glass Crookes tube contained two electrodes and when partially evacuated and a high voltage applied, a stream of particles (later called electrons) passed from one electrode (the cathode) to the other (the anode). Scientists were quick to apply this new information and researched ways to optimise the quality of the X-rays emerging from their Crookes tubes in order to get better images.

In March 1896, just three months after Roentgen's discovery, Sir Thomas Ranken Lyle, professor of natural philosophy at this University, made a radiograph of the foot of his colleague Professor Orme Masson, probably the first of its kind in Australia. The present collection of early X-ray tubes is the work of William Stone (1858–1949). Lyle and other early pioneers including FJ Clendinnen, the first radiologist at the Melbourne Hospital, made their own tubes and probably also used tubes made by Stone, a name which has been largely overlooked. Stone was a friend of Lyle and was employed by the Victorian Railways, becoming chief electrical engineer in 1913. In 1903 he was appointed to the Faculty of Engineering of this University. In 1917, as one of the four members of the State Brown Coal Advisory Committee, he helped plan the establishment of a power station at Morwell, the forerunner of the Yallourn-Morwell electric supply scheme.

The tubes illustrated show the various modifications Stone made to the cathodes and anodes and to the shapes of his tubes. The quality of X-rays was influenced also by the extent of evacuation of the tube and Stone's notebook records instances of tubes rupturing as the vacuum was increased. His notes also suggest that he tested the rays by imaging his hands, presumably without serious effects as he lived to 1949. His involvement in other activities no doubt limited his risk.

Professor Emeritus William Samuel Calhoun Hare, AO

References: KF Russell, 'William Stone (1858–1949): A pioneer in Australian radiology', *Australasian Radiology*, vol. 19, no. 3, September 1975, pp. 216–22.

Cat. 44 William Stone, **X-ray tubes**, c. 1905; glass, metal, stone and wood; 2 tubes, each: 36.0 x diameter 12.0 cm



‘THE MOST BEAUTIFUL RADIOGRAPHS WE HAVE SO FAR SEEN’

Alfred George Fryett (1862–1931) was one of several non-medical graduates with a scientific bent who contributed to the establishment of radiology in Melbourne. Born in London in 1862, he had returned home to Britain at the time of Roentgen’s discovery in 1896, where he probably learnt to make X-rays. Returning to Melbourne he was a ‘dresser’ at the Melbourne Hospital, where FJ Clendinnen was appointed radiologist in 1898. He was also a radiographer and laboratory assistant in the private hospital of leading surgeon Frederic Dougan Bird, who was lecturer and examiner in surgery at the University (1896) and on the staff of the Melbourne Hospital (1897).

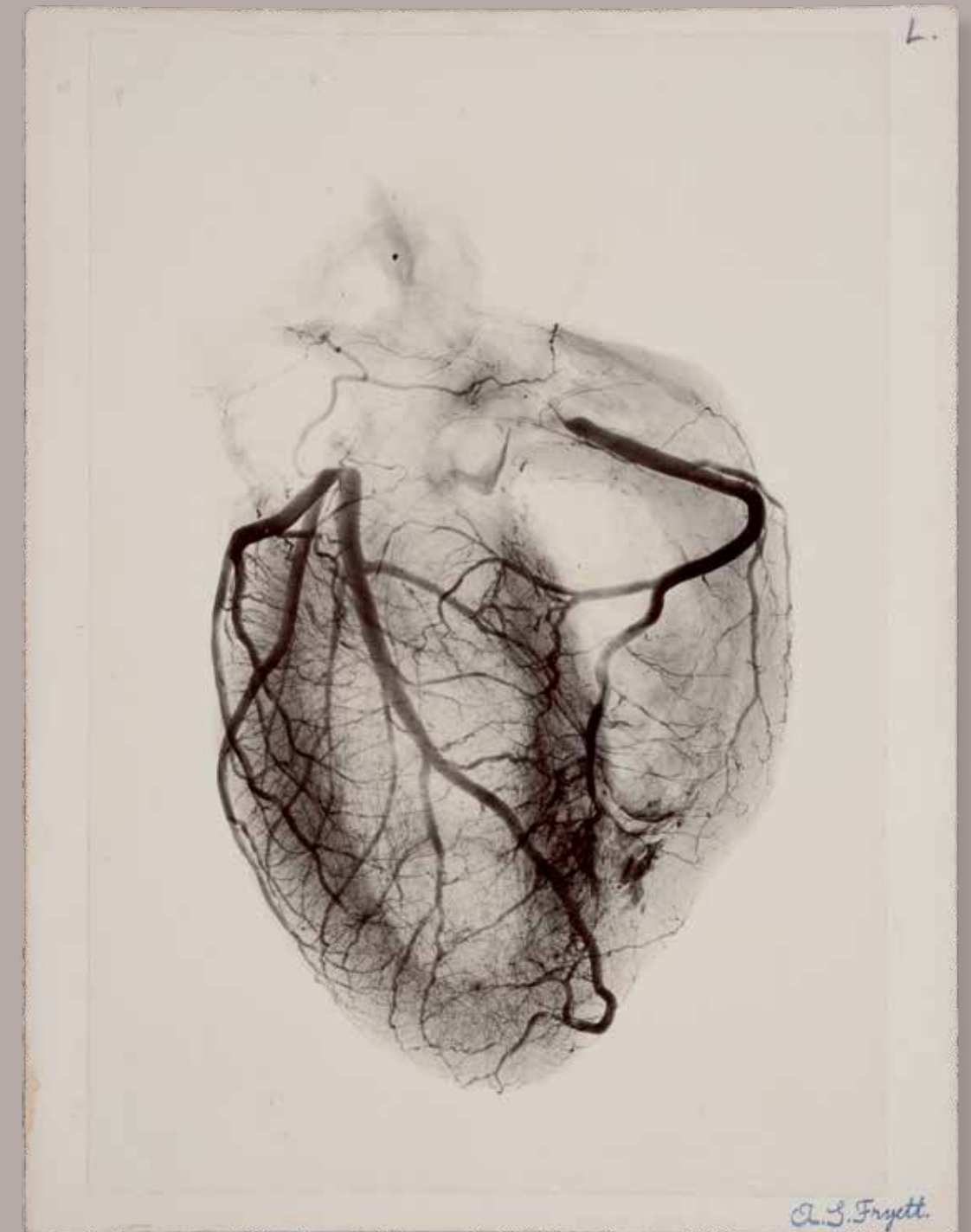
After Roentgen, many people injected the blood vessels of autopsy specimens, with indifferent results. It was Fryett who developed the method, refining the injected contrast medium to avoid leakage and making stereoscopic films so that the vessels could be viewed in three dimensions. He demonstrated the entire arterial tree using some thirty-six specimens. In 1904 the journal *Archives of the Roentgen Ray* published Fryett’s images with the comment: ‘They are the most beautiful radiographs we have so far seen ... and far more can be learned from a careful study of them than can be learned from the most careful dissection.’ Just where the images were produced is unclear. Certainly, one image in the *Archives* of 1904 states, ‘This image was taken from a specimen prepared at Melbourne University.’ Professor Harry Brookes Allen, later Sir Harry, held the chair of anatomy and pathology, combined until 1906, and he probably encouraged the project with some work done at the Melbourne Hospital and at Bird’s private hospital.

It took a further three quarters of a century for angiography to achieve such detail of the vascular anatomy of the living heart. During World War I Fryett continued to conduct a radiographic service in Spring Street. He died in Wiltshire in 1931, as the result of cancer of the lungs and hands and ‘X-ray burns of fingers and hands during the war’. He was sixty-eight years old.

Professor Emeritus William Samuel Calhoun Hare, AO

References: M McKeown, ‘A history of radiology in Victoria, 1896–1916’, MD thesis, University of Melbourne, 1983, vol. 1.

Cat. 45 Alfred G Fryett, **Stereo-skiagram: Coronary arteries of heart, left view**, c. 1900; photograph, cardboard, pencil and ink; 21.7 x 16.5 cm. Gift of Mr Alfred G Fryett, 1905



SPECIAL POWERS: A HEALING TOUCH, SECOND SIGHT AND IMMUNITY TO DROWNING

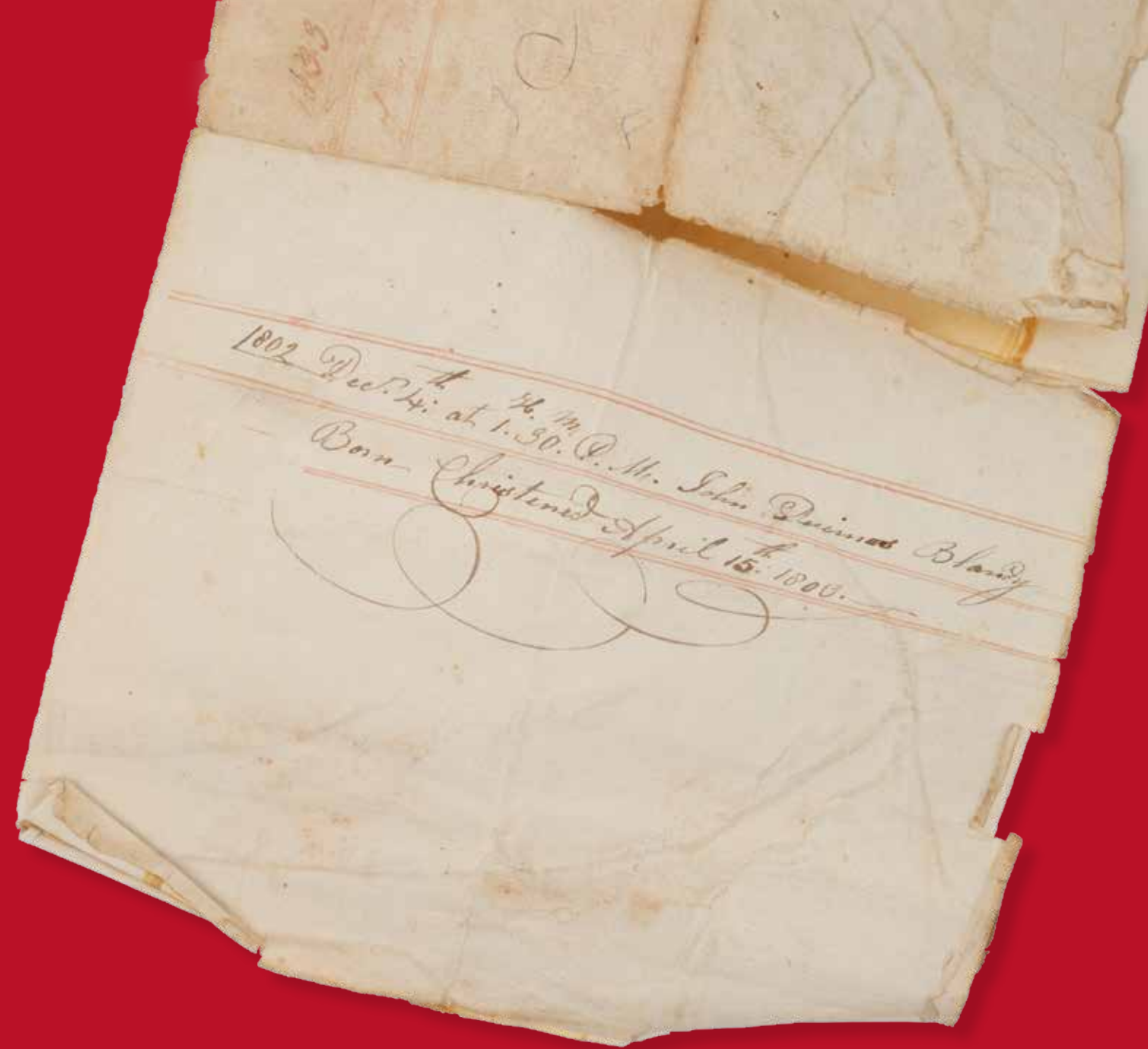
A caul is an unruptured piece of amniotic membrane which occasionally covers a baby's face at birth. It was believed that preserving one's caul would serve to protect from death by drowning. This specimen of a dried caul is of particular interest because of its size and the accompanying historical family notes. The name is derived from the Latin for cap or helmet, and judging by the size of the present one it would fall into the latter group. The yellowish parchment-like material has dried to an oval shape measuring, from the widest points, 36 centimetres by 27 centimetres, with an area of approximately 950 square centimetres.

Superstition has endowed anyone lucky enough to be born with a caul as having special powers: a healing touch, second sight and immunity to drowning. Families with such a gift could be financially recompensed, as sailors were prepared to pay a high price for protection from a watery grave. Charles Dickens in *David Copperfield* (1850) tells of an advertised sale of one for £15, a large sum at that time. Although the sale was unsuccessful, the caul was later won at a raffle by a lady who died in her bed at the age of ninety-two, possibly adding strength to the myth.

John Blandy's family lived in the reign of George III, at a time when England was having periodical wars with France and expanding her empire. The family migrated to Australia, arriving in 1813 when John (1802–1886) was eleven years old. Although there may be some occasional difficulty in reconciling odd dates, the attached family notes are a mine of information on conditions at that time. John's life can be followed through his work, marriage, places of residence, family, his suffering from an incurable cancer of the throat, his death and burial—to which the receipt of 1886 from the St Kilda General Cemetery probably refers.

Professor Emeritus Henry Forman Atkinson, MBE

Cat. 46 Mrs James Forden (curer), **Caul of John Decimus Blandy**, 1802; membrane on paper; 39.3 x 32.0 cm.
Gift of Mrs Jennie King, 1990





CELEBRATING AUSTRALIA'S PROUD HISTORY OF EXCELLENCE IN MEDICAL CARE

Dame Kate Campbell, DBE (1899–1986) was a physician and paediatrician and an eminent alumna of the University of Melbourne (MBBS, 1922; MD, 1924). She graduated as one of the top students in a year that included (Sir) Frank Macfarlane Burnet and (Dame) Jean Macnamara among others. After residencies at the Melbourne Hospital, Children's Hospital and (Royal) Women's Hospital, Campbell established a general practice and in 1929 began teaching neonatal paediatrics at the University of Melbourne (the first such appointment in Australia), in addition to appointments as honorary paediatrician at the Queen Victoria Hospital and later at the Women's. A pioneer of neonatal intensive care, Campbell's most outstanding contribution in research was in 1951 when she established that excess therapeutic oxygen lay behind acquired retrolental fibroplasia, a condition that could lead to blindness among premature babies. Appointed OBE in 1954, she was elevated to DBE in 1971 for services to the welfare of Australian children.

On 10 April 2012 Australia Post honoured Dame Kate Campbell on a postage stamp. The idea for the stamp issue initially came from the University of Melbourne's School of Medicine, which requested a commemorative stamp to mark its 150th anniversary. Australia Post responded with an issue that celebrates Australia's proud history of excellence in medical care. In addition to Dame Kate Campbell, the stamps include another noted alumna of the University of Melbourne, Dr Jane Stocks Greig (1872–1939), as well as Professor Fred Hollows, AC (1929–1993), Dr Victor Chang, AC (1936–1991) and Professor Chris O'Brien, AO (1952–2009). The stamps were developed and designed over a period of eighteen months with advice from several organisations and professional bodies including the Medical History Museum, the Monash Medical Centre, the Royal Women's Hospital and the Royal Children's Hospital.

Dr Hilary Maddocks

Cat. 47 Simone Sakinofsky, Australia Post Design Studio, **Dame Kate Campbell postage stamp**, 2012; offset lithographic print on paper; 3.75 x 2.6 cm. Gift of Australia Post, 2012. Stamp and postmark reproduced with permission of the Australian Postal Corporation. © Copyright Australia Post

LONG-TIME FRIEND AND SUPPORTER OF PAEDIATRICS

Dame Hilda Stevenson, DBE (1893–1987) was a long-time friend and supporter of many of the activities of the University of Melbourne and of the Royal Children's Hospital in particular. She made a number of gifts to the University, to many appeals and to various faculties. She established the Stevenson Chair of Paediatrics at the Royal Children's Hospital, where she was a vice-president for over twenty years and gave great service to that institution. She was involved in the very early days with Howard Florey Laboratories, now known as the Howard Florey Institute, and she was a member of its governing board. She also contributed to International House in its early days and her gifts included a squash court.

Born in Ballarat in 1893, Hilda Mabel McKay was the daughter of Hugh Victor McKay, the inventor of the Sunshine harvester. She was educated at Clarendon College and Presbyterian Ladies College. Her first marriage was in 1916 to Cleveland James Kidd (d. 1923). In 1936 she married Colonel George Ingram Stevenson. She had one daughter. Dame Hilda had a wonderful brain, thought clearly and cut through any smokescreen very quickly. She held her own easily on committees and her views and opinions were always sought and well-regarded. She enjoyed entertaining, which was done in style, and her guests included many in commerce, medicine and politics. Dame Hilda Stevenson enjoyed life greatly and enjoyed contributing to worthy causes. She was honoured by the University of Melbourne in 1973 with the degree of Doctor of Laws, *Honoris causa*.

This image taken in 1874 of the Children's Hospital at 3 Spring Street, Melbourne, shows the humble beginnings of the Royal Children's Hospital. Established in 1870 by Dr John Singleton and William Smith in a small house in Stephen Street (now Exhibition Street) and moving to Spring Street in 1873, the original committee of management consisted solely of women. Dame Hilda Stevenson's contribution adds to this great tradition.

Associate Professor Dr David Hunt

Cat. 48 Fritz Kricheldorf, **Children's Hospital, 3 Spring Street, Melbourne**, 1874; photograph; 25.5 x 30.3 cm. Loan from Australian Medical Association Victoria, 1994; donated 2011



‘HOUSE OF THE SURGEON’

This small set of Roman surgical implements may be dated to around 200 AD, based on comparative evidence. All three items are bronze and were found in London: the one on the left, with spear-shaped blade and twisted central rod, was discovered in the excavations near the Dutch Church, Austin Friars, in 1929; the middle one, with decorative gripping element and slender spoon-like end, comes from the excavations at the Bank of England in 1927; and the one on the right, with an exceptionally thin, waisted blade, was recovered from the excavations in Tokenhouse Yard in 1926.

Several ancient texts mention the use of surgical tools and some writers offer brief descriptions of specific types of instruments. According to classical sources, one of the most common implements was the *spathomele*, consisting of a long shaft with an olivary (olive-shaped or oval) point at one end and a spatula at the other. The general morphology of all three tools in the Medical History Museum belongs to this category. The large numbers of surviving *spathomele* suggest that their function was not limited to surgical use. They were probably also used for mixing and applying pharmaceuticals, and possibly to measure or mix pigments and paints.

The ubiquitous number of recovered medical instruments made and used during the Roman Empire suggests that surgical practices increased at this time. Ancient physicians, such as Galen and Celsus, described surgical operations, and in these accounts emphasised the importance of surgery in the training of physicians. Galen (born 129 AD), a highly skilled surgeon, was noted for the procedures he performed, especially those involving delicate eye operations using a needle-shaped instrument to remove cataracts from behind the lens. Technical proficiency in surgical procedures improved greatly as new instruments were devised. Developments in metallurgy, using new metals and alloys, also contributed to the precision of the instruments by providing finer points and sharper edges. One of the best surviving collections of Roman surgical instruments—comprising scalpels, hooks, drills, forceps, catheters, levers, needles, probes, specula and spatulas—was discovered in a residence at Pompeii which was named the ‘House of the surgeon’.

Dr Andrew Jamieson

Cat. 49 **Surgical instruments**, Roman, c. 200 AD; bronze; a: length 16.2 cm; b: length 13.3 cm; c: length 15.7 cm



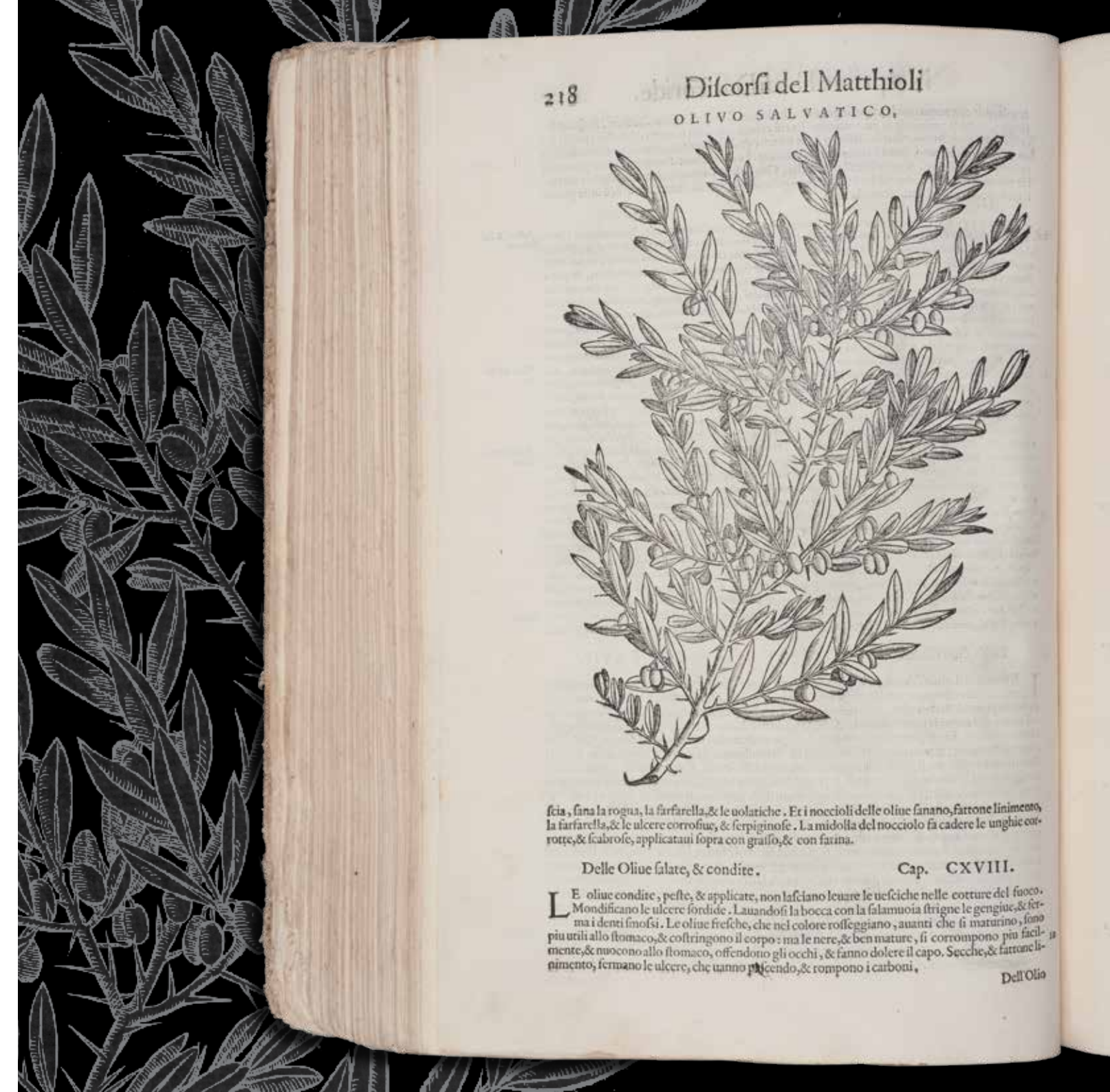
MOST POPULAR HERBAL BOOK OF THE SIXTEENTH CENTURY

Pietro Andrea Gregorio Mattioli was born in Tuscany in 1501. After training in Padua as a doctor he eventually settled in Trento, then a thriving metropolis in which new scholarship was encouraged. In 1539 Mattioli moved to Gorizia, where he was the town's physician until he was summoned to the court of the Holy Roman Emperor in Prague in 1554. He remained at the court until 1570 when he returned to his birthplace, dying of the plague seven years later, aged seventy-six.

The period in which Mattioli lived heralded a revival of humanist scholarship, which included a renewed interest in the use of plants in medicine. Amongst the classical texts widely studied at the time was *De materia medica* (completed 70 AD) by Pedanius Dioscorides, a widely-travelled Greek physician, pharmacologist and botanist. Each chapter in his five-volume work dealt with a single substance and included a description of the plant, its preparation and therapeutic properties. Various Latin, Greek and Italian editions appeared from 1478 onwards, and Mattioli based his own work on a 1516 Latin version, translating it into Italian, then setting about identifying the plants by their Latin names. The result, published in Venice in 1544, was a modest, un-illustrated herbal, intended 'to provide doctors and apothecaries with a practical treatise in Italian with a commentary that would enable them to identify the medicinal plants mentioned by Dioscorides'. Mattioli's *Commentarii* became the most popular herbal of the sixteenth century, with more than sixty editions published in many languages. His revised descriptions, which accurately identified Dioscorides' plants, together with new observations, ensured that this work became the standard text on medical botany for European physicians at the time. In all, some 200 plants were first described or illustrated by Mattioli; these were identified, he wrote, 'according to the testimony of my own senses'. Later editions contained hundreds of woodcut illustrations of plants and animals. The Italian Mattioli acquired by the University of Melbourne to celebrate the Melbourne Medical School's 150th anniversary was printed in Venice in 1568.

Pam Pryde

Cat. 50 Pietro Mattioli, *I discorsi di M. Pietro Andrea Matthioli*, 1568, Venice: Vincenzo Valgrisi; 35.0 x 25.0 cm. Special Collections, Baillieu Library. Acquired with the generous assistance of the Friends of the Baillieu Library to celebrate the University of Melbourne Medical School's 150th anniversary



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Discorsi del Matthioli
OLIVO SALVATICO.



scia, sana la rogna, la farfarella, & le uolatiche. Et i noccioli delle oliue sanano, fattone linimento, la farfarella, & le ulcere corrofiue, & serpiginose. La midolla del nocciolo fa cadere le unghie corrotte, & scabrose, applicataui sopra con grasso, & con farina.

Delle Oliue salate, & condite.

Cap. CXVIII.

LE oliue condite, pestate, & applicate, non lasciano leuare le uesciche nelle cotture del fuoco. Mondificano le ulcere foidide. Lauandosi la bocca con la salamoia strigne le gengiue, & ferma i denti finofsi. Le oliue fresche, che nel colore rosseggiano, auanti che si maturino, sono piu utili allo stomaco, & costringono il corpo: ma le nere, & ben mature, si corrompono piu facilmente, & nuocono allo stomaco, offendono gli occhi, & fanno dolere il capo. Sacche, & fattone linimento, fermano le ulcere, che uanno pigliando, & rompono i carboni.

Dell'Olio

ABOUT THE AUTHORS

Professor James A Angus, AO, BSc, PhD, FAA, has been Dean of the Faculty of Medicine, Dentistry and Health Sciences at the University of Melbourne since 2003. He was President of the Academic Board (2000–01), first Vice-President of the International Union of Pharmacology, and President of Medical Deans Australia and New Zealand (2009–11).

Professor Emeritus Henry Forman Atkinson, MBE, LDS, MSc, DDS, MDSc, FDSRCS, specialised in research histology and biology of human teeth, the physiology of speech and mastication. He was Professor of Dental Prosthetics, later Dean of the Faculty of Dental Science, and is the Honorary Curator of the Henry Forman Atkinson Dental Museum at the University of Melbourne.

Alan Attwood, BA(Hons), one of Harold Attwood’s three children, is a journalist and author who also wrote lousy poems as a teenager. Since 2006 he has been Editor of *The Big Issue* magazine.

Professor Emeritus Harold D Attwood, MD, FRCPA, FRCPPath, FRACP, (1928–2005), was Professor of Pathology at the University of Melbourne from 1966 to 1988. He was Curator of the Medical History Museum from 1981 to 1997.

Professor James D Best, MBBS, MD, FRACP, FRCPPath, FRC Edin, Hon MD (St Andrews), is Head of the Melbourne Medical School. After graduating from the University of Melbourne he trained in endocrinology and diabetes research, and worked as an endocrinologist at St Vincent’s Hospital. He joined the University staff as Deputy Head of the Department of Medicine (St Vincent’s Hospital) and in 1999 was appointed Professor of Medicine and Head of Department. He is on the National Health and Medical Research Council and chairs its Research Committee.

Professor James F Bishop, AO, MD, MMed, MBBS, FRACP, FRCPA, obtained his medical training at the University of Melbourne and the Royal Melbourne Hospital, with postgraduate qualifications in haematology. He currently holds the Chair of Cancer Medicine at the University of Melbourne and is the founding Executive Director of the Victorian Comprehensive Cancer Centre.

Dr James Bradley, MA, PhD, is Lecturer in the history of medicine and life sciences at the University of Melbourne. He worked at the Wellcome Unit, Glasgow, before moving to Australia. He is currently writing a biography of the nineteenth-century surgeon Sir Charles Bell.

Ann Brothers, DipPhys, BA(Hons), GradDipMusStud, has had a long and fruitful association with the University of Melbourne. After a twenty-year career in physiotherapy she returned to study arts and then museum studies. From 2000 until her retirement in 2008 she was Curator of the Medical History Museum.

Dr Jonathan Burdon, MBBS, MD, M Hlth&Med Law, FRACP, FCCP, FACLM, FAICD, is currently a respiratory physician and Deputy Chairman of the medical indemnity insurer Avant Mutual Group. He graduated from the University of Melbourne in 1971.

Professor John F (Jack) Cade, AM, MD, PhD, FRACP, FANZCA, FCICM, FCCP, a son of JFJ Cade, is a specialist in intensive care, and was for many years Director of Intensive Care at the Royal Melbourne Hospital.

Professor Mark Cook, MD, MBBS, FRACP, graduated from the University of Melbourne in 1983 and is Chair of Medicine and Head of Neurology at St Vincent’s Hospital, Melbourne. He is also Chair of the Medical History Museum Committee at the University of Melbourne.

Dr Andrew Cuthbertson, BMedSci, MBBS, PhD, is the current Research and Development Director and Chief Scientist of CSL Limited. He trained in medicine and medical science at the University of Melbourne.

Dr Carolyn de Poi, MBBS, BMedSc, FRACGP, FACRRM, Grad Dip Rural General Practice, DRANZCOG, has worked in rural general practice in Beechworth since 1995. She is also a medical educator with Bogong Regional Training Network, involved in training general practice registrars and international medical graduates.

Dr Joanna (Jo) Flynn, AM, MBBS, MPH, FRACGP, DRANZCOG, graduated from the University of Melbourne in 1975. She is a general practitioner and in 2009 was appointed inaugural Chair of the Medical Board of Australia.

James Guest, AM, OBE, VRD, served as Principal Medical Officer on the HMAS *Westralia* in World War II. He was Consultant Surgeon and Dean at the Alfred Hospital and a member of the Court of Examiners of the Royal Australasian College of Surgeons. His board positions have included Peter MacCallum Cancer Institute (Chair), Murdoch Childrens Research Institute, Victorian Clinical Genetics Services and Chairman, the Jack Brockhoff Foundation.

Professor Jane Gunn, PhD, MBBS, DRANZCOG, FRACGP, is Chair of Primary Care Research and Head of the Department of General Practice at the University of Melbourne. A general practitioner, her research interests include depression and the complex interplay between emotional wellbeing, physical health and illness.

Professor Emeritus William Samuel Calhoun Hare, AO, MD, DDR, FRACP, FRCR ~~Lon~~, FRACR, DDU, was the first professor of radiology in Australia. He occupied the Edgar Rouse Chair, Department of Radiology, University of Melbourne, from 1965 until 1988, and was a pioneer in the introduction of angiography.

Associate Professor Dr John Hayman, MBBS, MD, FRCPA, is a retired pathologist who assists with tutorials in the Department of Pathology at the University of Melbourne. He graduated MBBS *Melb* in 1957 and obtained his MD when a Senior Lecturer in the Department in 1992.

Dr Jacqueline Healy, BA(Hons), MBA, PhD, is the Curator of the Medical History Museum, University of Melbourne. She was the inaugural Director of Bundoora Homestead Art Centre, the public art gallery of the City of Darebin, from 2002 to 2011. Previous positions include Director of the Museum and Art Gallery of the Northern Territory and Director, Public Programs, National Gallery of Victoria.

Dr Harry Hemley, MBBS, FAMA, has been President of the Australian Medical Association (Victoria) since 2009. He is a general practitioner with a passion for social justice, mental health and issues of homelessness.

Associate Professor Dr David Hunt, MD, FRACP, FACC, FCSANZ, DDU, RFD, graduated from the University of Melbourne in 1962. He undertook postgraduate training at the Royal Melbourne and Alfred Hospitals and the University of Alabama. He was Director of Cardiology at the Royal Melbourne Hospital (1980–93), and is now Consultant Cardiologist at the RMH, Associate Professor of Medicine at the University of Melbourne and adjunct Associate Professor of Medicine at Monash University.

Dr Shane Huntington, BSc(Hons), PhD, is Principal Strategy Adviser to the Dean of the Faculty of Medicine, Dentistry and Health Sciences at the University of Melbourne. He also holds an adjunct research position in the School of Physics, his specialty being photonics and imaging.

Professor John M Hutson, AO, MBBS, MD *Monash*, MD *Melb*, DSc, was taught by, inspired by, and in awe of Peter Jones in the 1970s and 1980s. He became the editor of the student text *Jones’ clinical paediatric surgery* in the 1990s, and is currently Chair of Paediatric Surgery at the Royal Children’s Hospital in Melbourne.

Dr Andrew Jamieson, BA RMIT, BA(Hons) *Melb*, MA, PhD, is a Lecturer in Classics and Archaeology in the School of Historical and Philosophical Studies and Curator of the University of Melbourne’s antiquities collection.

Dr Ross L Jones, BA(Hons), DipEd, MEd, PhD, is an Australian Research Council Postdoctoral Fellow at the University of Sydney, a Senior Fellow in the Department of Anatomy and Cell Biology at the University of Melbourne and the author of *Humanity’s mirror: 150 years of anatomy in Melbourne*.

Harsch Kothari is a final year medical student at the Austin Hospital, and 2012 President of the University of Melbourne Medical Students’ Society.

Margaret Legge, BA(Hons), majored in fine arts at the University of Melbourne and was Curator of Decorative Arts at the National Gallery of Victoria, specialising in ceramics. She contributed to the publication accompanying the Medical History Museum exhibition *The physick gardener* in 2010.

Dr Hilary Maddocks, BA(Hons), DipEd *Melb*, DipEd *Monash*, DipEdPub, PhD, is responsible for the development of postage stamp subjects in the Philatelic Division of Australia Post.

Dr James Martin, FRCS, FRACS, FRANZCO, was ophthalmic surgeon to St Vincent’s Hospital, Melbourne, and the Repatriation Hospital, Heidelberg. He was also Curator of the conjoint Museum of the Royal Australian and New Zealand College of Ophthalmologists and the Royal Victorian Eye and Ear Hospital.

Professor Geoff McColl, MBBS, BMedSc, MEd, PhD, FRACP, is Professor of Medical Education and Training and Director of the Medical Education Unit in the Melbourne Medical School. He is currently leading the development and implementation of the new Doctor of Medicine program.

Dr Ross McMullin’s books include the award-winning *Pompey Elliott* and the ALP centenary history *The light on the hill*. His latest book, *Farewell, dear people: Biographies of Australia’s lost generation*, includes a biography of Clunes Mathison.

Christopher Menz, BA(Hons), is Acting Director of the Ian Potter Museum of Art at the University of Melbourne and a former Director of the Art Gallery of South Australia.

Jo Monie, BA, MSocSci, is a great granddaughter of George Britton Halford through his youngest child, Henry. She is a published author in the fields of Australian bibliography and history.

Pam Pryde, MA, is Curator of Special Collections at the University of Melbourne. She has long had an interest in the techniques involved in the hand-printed book.

Dr Kate Robson, MBBS, BA, MPhil, is a Rhodes Scholar, Melbourne Medical School alumna, and physician trainee at St Vincent’s Hospital. She recently graduated from Oxford University with an MPhil degree in the history of medicine.

Professor Emeritus Kenneth Fitzpatrick Russell, MB, MS, DLitt, FRACS, FRACP, (1911–1987), was the founding Curator of the Medical History Museum (1967–81) and Associate Professor in the Department of Anatomy (1948–68). In 1968 the University conferred on him the degree of Doctor of Letters, and in 1969 he was appointed to a Personal Chair in Anatomy and Medical History.

Dr Laurence Simpson, OAM, MD, FCCP, FRACS, graduated from the University of Melbourne in 1954. He trained in thoracic surgery, working initially in Kwangju, South Korea, and then in Melbourne at St Vincent’s and Austin Repatriation hospitals. Since retiring from surgery in 1996 he has been involved in education and the teaching of medical history.

Kerriane Stone, BCA, MArtCur, is Special Collections Officer (Prints) at the Baillieu Library, University of Melbourne.

Professor JWG Tiller, MD, MB, ChB, BSc, DPM, FRACP, FRANZCP, GAICD, is Professor of Psychiatry at the University of Melbourne, Albert Road Clinic. He specialises in anxiety, affective disorders, psychoses and their treatment, including psychopharmacology and electroconvulsive therapy.

Dr Michael Tyquin, BEc, BA(Hons), PhD, is a consulting historian and has published extensively in the areas of Australian social, medical and military history. He is the official historian of the Royal Australian Army Medical Corps.

Dr Murray Warren Verso, MBBS, DObst, RCOG, is the son of Dr Murray Linton Verso (1916–2010). Both graduated from the Melbourne Medical School. Since 1977 Murray junior has worked as a general practitioner in Williamstown. For thirty years he was a member of the visiting medical staff of the Williamstown Hospital, and was Medical Officer of Health for the City of Hobsons Bay until 2008. Currently he is on the Victorian Branch Council of the AMA and the board of the Westgate General Practice Network.

Dr Rod Westhorpe, OAM, FRCA, FANZCA, is a retired paediatric anaesthetist and is Honorary Curator at the Geoffrey Kaye Museum of Anaesthetic History.

Dr Ann Westmore, BSc, MSc, PhD, has a long-standing interest in the history of the Melbourne Medical School through her work on the Historical Compendium of the Faculty of Medicine, Dentistry and Health Sciences.

Dr Ken Winkel, MBBS, BMedSci, PhD, FACTM, has been Director of the Australian Venom Research Unit, Department of Pharmacology, University of Melbourne, since 1999. In that capacity he continues the work of Struan Sutherland and his predecessors on venomous bite and sting injury and its prevention.

Dr Desiree Yap, MBBS, FRANZCOG, MPHTM, FRCOG, is a specialist obstetrician and gynaecologist with an interest in public health. She was President of the Victorian Medical Women’s Society and is currently President of the Australian Federation of Medical Women. She is also on the Board of Women’s Health Victoria.

LIST OF WORKS

All measurements are expressed height before width before depth.

All works are from the Medical History Museum Collection, University of Melbourne, unless otherwise stated.

- 1 England
Fittings from Savory and Moore pharmacy, London, c. 1849
glass, wood
2.50 x 1.96 x 10.08 m
Gift of the Wellcome Trust, 1971
MHM2012.65
- 2 **Cover, Brownless Memorial Supplement**, 1898
published by Rae Bros Photo-Process House, Melbourne
print on paper; 24.5 x 19.2 cm
printed on cover: *Brownless Memorial Supplement. Being a Special Medical Supplement to “Alma Mater” Vol. III No. 6, Sept.* 1898
written in ink in top right corner: *D.D. Cade*
MHM00992
- 3 **Anatomy dissection class**, 1864
photograph, ink and watercolour
49.3 x 55.8 cm
MHM00463
- 4 John William Springthorpe (1855–1933)
Australia
Notes taken at Professor Halford’s lectures, 1877
ink, pencil on paper, leather and cardboard; 19.5 x 23.4 x 3.0 cm
front cover: *Physiology and Pathology / Lectures / Melb 1877 Univ.*
inside cover: *General Anatomy, Physiology and Pathology / Lectures John Springthorpe / Melb Univ / 1877 / Melbourne University 1877*
MHM01047
- 5 Troedel & Co., Melbourne (established 1860)
Illuminated address presented to Professor Harry Brookes Allen (1854–1926) at the Intercolonial Medical Conference, 1889
leather, gilt, ink, paint, paper and

- cardboard; 54.8 x 42.6 cm
stamped in gilt: *PRESENTED TO PROFESSOR H.B. ALLEN., M.D. BY THE MEMBERS OF THE INTERCOLONIAL MEDICAL CONGRESS 1889*
MHM00518
- 6 **William Carey Rees** (1843–1879), c. 1870
photograph of drawing; 13.3 x 8.0 cm
MHM00403
- 7 **First women students admitted to Melbourne Medical School**, 1887
photograph; 28.0 x 33.0 cm
MHM02037
- 8 **Medical Students’ Society annual dinner menu**, 1899
print on card with gilt; 15.2 x 10.2 cm
printed on front: [Medical Students’ Society insignia] / *Annual Dinner Given by THE OCTOBER MEDICAL GRADUATES At the VIENNA CAFÉ, 8th November, 1899.*
Gift of Dr Don Spring, 1968
MHM00299
- 9 **Epistle to Peter MacCallum**, 1925
ink on paper; 35.6 x 30.4 cm
written in ink: *To Professor Peter MacCallum* [sic], *M.D. The members of his Monday afternoon classes desire to express their grateful sense of his skilled, zealous and inspiring work. November 1925.*
MHM01732
- 10 WM Drummond & Co., Melbourne (established 1858)
Clock presented to Dr AE Rowden White, 1911
silver, copper, other metals, enamel, wood, leather, velvet and satin
17.0 x 15.2 x 4.5 cm
engraved on front: *TO / DR. A.E. ROWDEN WHITE. / FROM / TWO GRATEFUL PATIENTS / M.E. & S.S. WAKLEY. / 1911.*; stamped on left side: [five silver marks]; painted on face: *WM DRUMMOND & CO / MELBOURNE / SWISS MADE / 8 DAYS*
Gift of Australian Medical Association Victoria, 2011
MHM2011.55

- 11 **Petition on behalf of physicians, surgeons and surgeon apothecaries practising in Melbourne, addressed to Sir George Gipps, Governor of New South Wales, to establish a Medical Board in Victoria**, c. 1842
ink and wax on paper; 64.5 x 42.2 cm
Gift of Dr David Roseby to the Medical Society of Victoria, 1940; loan from Australian Medical Association Victoria, 1994; donated 2011
MHM04054
- 12 A Penny & Son, Melbourne
James George Beaney (1828–1891), c. 1870
gypsum, paint; 25.0 x 12.1 x 11.8 cm
marked: *DR BEANEY / A. PENNY & SON, MELBOURNE*
Gift of the estate of Dr RL Fulton, 1966
MHM00057
- 13 **Registration certificate from Medical Board of Victoria for Isaac Wallace**, 1864
ink and print on paper; 33.5 x 21.9 cm
Loan from Australian Medical Association Victoria, 1994; donated 2011
MHM00569
- 14 **Quarterly hospital ticket, the Royal Infirmary, Edinburgh, issued to Herbert Hewlett**, 1896
ink, print on paper and leather
6.0 x 8.4 x 0.4 cm
Gift of Mrs Nancy L Currie, 1974
MHM02755
- 15 France
Snuffbox dedicated to Dr Franz Joseph Gall (1758–1828), c. 1801–30
pressed walnut, tortoiseshell
2.0 x diameter 8.0 cm
French inscription on lid translates as: *Craniology of Dr. Gall*; on base: *Systems of brain water organs of Dr. Gall*; [list of 27 systems]
Loan from Australian Medical Association Victoria, 1994; donated 2011
MHM04141

- 16 Australia
Medicine chest, c. 1890
wood, metal, glass, pottery, chamois, paper and chemicals
25.2 x 46.0 x 28.0 cm
Gift of Dr S Peters, 1977
MHM04341
- 17 C Beecham & Co., Melbourne (c. 1872 – c. 1902)
Display cases, 1880
American walnut, pine, wood veneer, glass, metal, varnish and gilt
cases 1 and 2: 292.0 x 141.0 x 223.0 cm
case 3: 292.0 x 173.0 x 314.5 cm
on plate: *C. BEECHAM / MAKER / 23 / POST OFFICE PLACE / MELBOURNE*
Purchased from the estate of PH Duckett, 1962
MHM02418
- 18 Joseph Gray & Son, Truss Works, Sheffield
Magneto-electric machine, 1885
brass, metal, wood, paint, cotton and paper
box: 12.0 x 26.0 x 12.0 cm
on label set in lid: *IMPROVED PATENT MAGNETO-ELECTRIC MACHINE FOR NERVOUS DISEASES, Joseph Gray & Son, Truss Works, Sheffield*
Gift of Mrs LJ Balfour to the University of Melbourne, 1967; transferred to the Medical History Museum
MHM00228
- 19 Dr H Sanche & Co., USA and Canada
Oxydonor number two, c. 1896
metal, wire, cotton, fabric and cardboard
box: 8.0 x 12.9 x 6.5 cm
printed label: *OXYDONOR / VICTORY / DIADUCTION RULES LIFE / TRADE MARK / COPYRIGHTED 1893 BY DR. H. SANCHE. / Registered. June 10, 1890, and Nov. 24, 1896. / OXYDONOR / NUMBER TWO / Patented June 24, 1890; May 31, 1892; June 2, 1894; July 27* [unclear]
Loan from Australian Medical Association Victoria, 1994; donated 2011
MHM04031
- 20 R McGeehan
Field hospital, Kitchener camp, 1910
photograph
30.1 x 24.5 cm
written on image: *FIELD HOSPITAL. KITCHENER CAMP 1910*
Gift of Ms D Williams, 1976
MHM03278

- 21 Darge Photographic Company, Melbourne
Gordon Clunes McKay Mathison (1883–1915), 1914
photograph; 22.6 x 11.8 cm
printed on mount: *Darge, / The Soldier’s Photographers, / 175 COLLINS ST, / MELBOURNE*
in ink on mount: *1914 / WOUNDED CAPE HELLES / DIED ALEXANDRA MAY 21 1915*
Gift of Department of Physiology, 1968
MHM00322
- 22 Mary C De Garis (1881–1963)
Australia
Notebooks from clinical lectures for surgery and medicine, 1911
ink on paper and cardboard
3 notebooks, each: 16.6 x 10.8 x 0.5 cm
MHM02029
- 23 Simpson, London
Set of amputation instruments, c. 1800
brass, steel, wood, cloth and natural fibre; 12 parts; box: 6.5 x 54.6 x 25.5 cm
instruments marked: *Simpson*
knife marked: *Weiss London*
forceps marked: *LONDON / SIMPSON 55 STRAND*
tourniquets marked: *Weiss IMPROV’D*
Gift from the Raymond Russell Collection, London, by Mrs M Russell, in memory of her son, 1964
MHM00061
- 24 Arnold & Sons, London
Lister’s carbolic acid steam spray, c. 1880
brass, copper, glass, wood and varnish; 36.6 x 42.0 x 20.7 cm
Embossed: *ARNOLD & SONS 35 & 36 WEST SMITHFIELD LONDON*
Loan from Surgeon Captain SJ Lloyd, 1973
MHML0036
- 25 Woolwich-Elliott Chemical Company Ltd, Sydney; distributed by Felton, Grimwade & Co. Pty Ltd, Melbourne (1867–1930)
Ethyl chloride for local anaesthesia, c. 1914
paper, glass, cardboard and metal
box: 7.0 x 20.5 x 4.3 cm
bottle: 17.0 x diameter 4.3 cm
on label: *100cc / Ethyl Chloride (Pure) for Local Anaesthesia Conforming to the requirements for the British Pharmacopoeia 1914*
MHM03722

- 26 Dr Julian AR Smith (1873–1947), Australia, and Three Arrow Mark, Germany
Smith direct transfusion pump, c. 1930–40
plated metals, stainless steel, glass and rubber
10.5 x 14.3 x 10.2 cm
MHM03380
- 27 Dr C Wallace Ross (1904–1959), Dr Ian Jeffreys Wood (1903–1986) and Taylor-Elliotts Ltd (closed 1930) to become Drug Houses of Australia Ltd (1930–1974)
Continuous intravenous infusion set with ‘Soluvac’ 1200-millilitre flask, c. 1939
glass, plated metal, steel, other metals, rubber and cotton
15.8 x 13.0 x 12.5 cm
marked on bottle: *SOLUVAC BLOOD TRANSFUSION FLASK TOTAL CAPACITY 1200 MILS; ELLIOTS STERILE SOLUTIONS / SOLUVAC / 5*
Gift of Dr Murray L Verso, 1967; transferred from University of Melbourne Collection to the Medical History Museum
MHM00158
- 28 Eric Thake (1904–1982)
Australia
Four illustrations of surgical procedures, c. 1960
graphic art prepared for three-colour printing: watercolour, gouache, ink, correction fluid, pencil, biro, Letraset, clear film on board
Gift of Mr Peter Griffith Jones to the Faculty of Medicine, 1989; transferred to Medical History Museum, 2000
Excision of a second branchial cyst (Series I–1)
15.2 x 13.5 cm
written in ink: *Series I–1*
MHM2012.22
Excision of a second branchial cleft fistula (Series II–1)
15.2 x 15.1 cm
written in ink: *Series II–1*
MHM2012.23
Excision of a second branchial cleft fistula (Series II–3)
15.2 x 13.7 cm
written in ink: *Series II–3*
MHM2012.23
Excision of a first branchial cleft fistula (Series III–2)
15.2 x 13.5 cm
written in ink: *Series III–2*
MHM2012.24

- 29a

John FJ Cade (1912–1980)
Australia
Patient record cards of lithium treatment, 1948–50
ink on paper
17 cards, each: 12.8 x 20.4 cm
ink notations showing dates and conditions of patients
Gift of Mrs John FJ Cade, 1981
MHM00985

29b

Mrs John FJ Cade
Australia
John FJ Cade and dog at Bundoora Repatriation Hospital, 1948
photograph
17.7 x 12.6 cm
verso, in pencil: *taken about 1948 Bundoora Box Brownie / 8682*
Gift of Mrs John FJ Cade, 1981
MHM00991

30

Harold D Attwood (1928–2005)
Australia
Notebook, 1945–53
ink, pencil on paper, card
13.0 x 20.5 x 1.2 cm
Gift of Attwood family, 2004
Professor Harold D Attwood Collection
MHM04437

31

England
Jar for elderberry juice, late 17th century
glazed earthenware
19.6 x diameter 14.4 cm
inscribed: *ROB: SAMBUC:*
Russell and Mab Grimwade Bequest, 1973; transferred from the University of Melbourne Art Collection, 1988
MHM03251

32

Caltagirone, Italy
Pair of albarelli, 17th–18th century
glazed earthenware
a: 23.2 x diameter 12.0 cm
b: 23.0 x diameter 11.5 cm
Loan from Graham Roseby, 1965; gift of the estate of Graham Roseby, 2009
MHM2009.36

33

England
Specie jar, c. 1880
glass, gold leaf, transfer and paint

34

Felton, Grimwade & Co., Melbourne (1867–1930)
Chloride of lime antidote for snakebite, c. 1895–1900
glass, metal, leather, wood, paper and cloth
case: 3.1 x 12.7 x 9.2 cm
syringe length with needle: 15.0 cm
bottles: 8.5 x diameter 2.0 cm
7.0 x diameter 1.5 cm
stamped on box: *CHLORIDE OF LIME ANTIDOTE / FOR / SNAKE BITE / FELTON GRIMWADE & CO. / MELBOURNE*
Loan from Australian Medical Association Victoria, 1994; donated 2011
MHM03933

35

Commonwealth Serum Laboratories, Melbourne
Ampoule of sodium penicillin G, 1943
glass, paper and penicillin
15.5 x diameter 3.0 cm
printed: *PENICILLIN, “COMMONWEALTH” (The Sodium Salt of Penicillin). (in vacuo) No antiseptic added. Contents 100,000 Oxford Units*; stamped use-by date: *1944.08.01*; batch number in ink: *50-56-1*
Gift of VF Davey, Commonwealth Serum Laboratories, 1968
MHM02273

36

Monaural stethoscope, 1885
wood, bakelite
irregular: 17.9 x diameter 6.9 cm
MHM00166

37

Arnold & Sons, Smithfield, London
Aspiration syringe, 1888
steel alloy, glass, rubber, leather and silk
case: 2.0 x 13.2 x 6.0 cm
barrel and plunger: 11.9 x 4.0 cm

38

J Weiss & Son, London
Set of ophthalmic instruments, c. 1890s
iron, metal, ivory, wood, velvet, leather and paper
case: 5.0 x 25.4 x 17.4 cm
stamped into handles: *WEISS gilt-stamped on case interior: J. WEISS & SON. / 287, OXFORD ST LONDON*
Gift of Mrs AM Hill through Professor GW Crock, 1979
MHM01909

39

Victor Ernest Cobb (1876–1945)
Australia
School of Physiology, 1921
etching on paper; 17.2 x 15.8 cm
within etching: *Victor Cobb. 1921. / “School of Physiology” Melb. University*
in pencil: *Victor Cob[b]. School of Physi – University – [illegible]*
MHM00401

40a

Leiden, Netherlands
Simple microscope after Antonj van Leeuwenhoek’s design of 1674
brass, glass
11.9 x 6.0 x 6.9 cm
marked: *COPIE LEIDEN*
Gift of Professor Carl de Gruchy, 1974
MHM00045

40b

Medallic Art Co. (established 1900)
Antonj van Leeuwenhoek (1632–1723) commemorative medal, c. 1970–72
bronze
diameter 4.5 cm x 0.8 cm
inscriptions: *ANTONJ VAN LEEUWENHOEK / THE MICROSCOPE / 1632 / 1723*
MHM03015
-
- Medical students**, 1879–80; photograph; 28.9 x 39.0 cm. Back row, left to right: AS Barker (graduated 1879–80), FJ Newman (1879–80), TRH Willis (1880–81), AC Brownlee (1880–81), H Friedman (1880–81), SSAZ Womaroki (1879–80), EG Ochiltree (1879–80), HM Custayne (1879–80), JAC Welchman (1879–80), CJ Trood (1879–80); front row: A Adam (1879–80), JW Springthorpe (1879–80), JD Thomas (1879–80)
- 122

HIGHLIGHTS OF THE COLLECTION, MEDICAL HISTORY MUSEUM

- | | |
|---|---|
| <p>41 W Watson & Sons Ltd, London (1837-1956)
 Kerosene microscope lamp, c. 1880
 brass, metal and glass
 32.5 x 14.3 x 12.7 cm
 marked on base ring: <i>W. WATSON & SONS LTD, LONDON</i>; marked on burner knob: <i>BRITISH MADE</i>
 Gift of Professor George S Christie, 1968
 MHM00013</p> <p>42 Powell & Lealand, London (1841-1924)
 Compound monocular and binocular microscope, c. 1864
 glass, brass, silver and gold
 46.2 x 24.4 x 16.7 cm
 Gift of Mrs Dorothy C Banks, granddaughter of Professor George Britton Halford
 MHM00038</p> <p>43 William Stone (1858-1949)
 Australia
 Henry J Grayson with his micro-ruling engine, c. 1912
 photograph from negative plate
 glass, paper and cardboard
 12.6 x 17.3 cm
 written verso: <i>This is the only known photograph of Grayson. It was taken by William Stone and the negative plate found when the microruling engine was discovered. It shows the engine before minor modifications were made to the vernier wheel.</i>
 Gift of the estate of Mrs M Murray
 MHM00139</p> <p>44 William Stone (1858-1949)
 Australia
 X-ray tubes, c. 1905
 glass, metal, stone and wood
 2 tubes, each: 36.0 x diameter 12.0 cm
 MHM02339 and MHM02340</p> <p>45 Alfred G Fryett (1862-1931)
 Australia
 Stereo-skiagram: Coronary arteries of heart, left view, c. 1900
 photograph, cardboard, pencil and ink; 21.7 x 16.5 cm
 signed in ink: <i>A.G. Fryett</i>
 Gift of Mr Alfred G Fryett, 1905, to the University of Melbourne
 MHM01085</p> <p>46 Mrs James Forden (curer)
 England
 Caul of John Decimus Blandy, 1802</p> | <p>membrane on paper
 39.3 x 32.0 cm
 written on paper: <i>1802 Dec. 4th at 1.30 P.M. John Decimus Blandy / Born. Christened April 15th 1803.</i>
 Gift of Mrs Jennie King, 1990
 MHM03597</p> <p>47 Simone Sakinofsky, Australia Post Design Studio
 Dame Kate Campbell postage stamp, 2012
 offset lithographic print on paper
 3.75 x 2.6 cm
 Gift of Australia Post, 2012
 MHM2012.63</p> <p>48 Fritz Kricheldorf (1865-1933)
 Australia
 Children's Hospital, 3 Spring Street, Melbourne, 1874
 photograph
 25.5 x 30.3 cm
 written in ink to right under image: <i>Childrens Hospital 3 Spring St 1874</i>
 impressed: <i>Kricheldorf Melbourne</i>
 Loan from Australian Medical Association Victoria, 1994; donated 2011
 MHM04019</p> <p>49 Roman
 Surgical instruments, c. 200 AD
 bronze
 a: length 16.2 cm
 b: length 13.3 cm
 c: length 15.7 cm
 unearthed in excavations in London, 1920s
 MHM2012.62</p> <p>50 Pietro Andrea Gregorio Mattioli (1501-1577)
 I discorsi di M. Pietro Andrea Matthioli, 1568
 printed in Venice by Vincenzo Valgrisi
 35.0 x 25.0 cm
 Special Collections, Baillieu Library
 Acquired with the generous assistance of the Friends of the Baillieu Library to celebrate the University of Melbourne Medical School's 150th anniversary</p> <p>Other items illustrated</p> <p>Imprint page
 Melbourne Medical School, 1864
 photograph
 image: 14.1 x 20.0 cm
 mount: 17.0 x 22.2 cm
 verso, in pencil: <i>OLD MEDICAL SCHOOL</i>
 MHM00394</p> |
|---|---|

Other items illustrated

Imprint page
Melbourne Medical School, 1864
 photograph
 image: 14.1 x 20.0 cm
 mount: 17.0 x 22.2 cm
 verso, in pencil: *OLD MEDICAL SCHOOL*
 MHM00394

membrane on paper
39.3 x 32.0 cm
written on paper: 1802 Dec. 4th at
1.30 P.M. John Decimus Blandy / Born.
Christened April 15th 1803.
Gift of Mrs Jennie King, 1990
MHM03597

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Other items illustrated

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Melbourne Medical School, 1864
 photograph
 image: 14.1 x 20.0 cm
 mount: 17.0 x 22.2 cm
 verso, in pencil: *OLD MEDICAL SCHOOL*
 MHM00394

Page 4
Past and present deans of the faculty,
and hospital buildings, 1898
 Illustration from *Brownless Memorial*
Supplement. Being a Special Medical Supplement
to "Alma Mater" Vol. III No. 6, Sept. 1898, p.1
 published by Rae Bros Photo-Process
 House, Melbourne
 print on paper; 24.5 x 19.2 cm
 MHM00992

Page 6
Thomas H Maguire (1821-1895)
England
Anthony Colling Brownless (1817-1897),
1850
lithograph on paper
36.9 x 29.0 cm
printed beneath image: *ANTHONY
COLLING BROWNLESS / late Physician
to the Royal General Dispensary and to the
Metropolitan Dispensary*
Gift of Mrs Andrea J Brownless, 1969
MHM00458

Page 9
Parke Davis & Co., London
Tubes of tabloids in case
metal, glass, paper, cork, cottonwool, wood,
leather, gilt and brass
5.9 x 3.8 x 2.1 cm
stamped in gilt: *PARKE DAVIS & Co. /*
LONDON
Gift of Dame Annie Jean Macnamara, DBE
MHM03508

Page 13
 Invitation to Dr HM Hewlett and Mrs
 Hewlett to attend a 'conversazione' at
 the Royal Exhibition Building, 1901
 print on paper; 25.0 x 36.9 cm
 MHM01075

Page 123
Medical students, 1879-80
photograph; 28.9 x 39.0 cm
MHM00461

Cover flap
Stokes & Sons Pty Ltd, Melbourne
(established 1856, this name from 1911)
Edward Henry Embley memorial medal
awarded to Dr Maurice McKeown, 1940
bronze, gold plate
medal: diameter 4.0 cm x 0.4 cm
case: 1.7 x 6.7 x 7.4 cm
minted: EDWARD HENRY EMBLEY /
MEMORIAL MEDAL; AWARDED TO Maurice
Malcolm McKeown, 1940 / UNIVERSITY OF
/ MELBOURNE
Gift of Dr Malcolm McKeown, son of the
recipient, 1996
MHM04223

The Medical History Museum in the Faculty of Medicine, Dentistry and Health Sciences at the University of Melbourne is the oldest and finest collection of its type associated with a medical school in Australia. Established in 1967 by Kenneth Russell, a professor of anatomy, with support from the Wellcome Institute, London, the museum covers the history of the Melbourne Medical School and the broader history of medicine in Australia and overseas.

The purpose of the museum is to encourage, through direct engagement with its collections, appreciation and understanding of the history of medicine and its role in society. The museum stimulates active learning through research, teaching and dialogue among communities of students, faculty, scholars, alumni and the wider public.

Further information on the museum can be found at www.medicine.unimelb.edu.au.

Front cover: Thomas H Maguire, **Anthony Colling Brownless**, 1850 (detail) (see page 6)

Ampoule of sodium penicillin G, 1943 (cat. 35)

Snuffbox dedicated to Dr Franz Joseph Gall, c. 1801–30
(cat. 15)

Eric Thake, **Excision of a second branchial cyst (Series I-1)**,
c. 1960 (cat. 28)

Back and inside covers: **Fittings from Savory and Moore pharmacy, London, c. 1849**, with bottles and jars from Palmer's pharmacy, Ballarat, 1870–90 (cat. 1)

Cover flap: **Edward Henry Embley memorial medal awarded to Dr Maurice McKeown, 1940**

