

# COMPASSION *and* COURAGE



AUSTRALIAN DOCTORS AND DENTISTS IN THE GREAT WAR  
MEDICAL HISTORY MUSEUM, UNIVERSITY OF MELBOURNE

War has long brought about great change and discovery in medicine and dentistry, due mainly to necessity and the urgency and severity of the injuries, disease and other hardships confronting patients and practitioners. Much of this innovation has taken place in the field, in makeshift hospitals, under conditions of poor hygiene and with inadequate equipment and supplies. During World War I, servicemen lived in appalling conditions in the trenches and were subjected to the effects of horrific new weapons such as mustard gas. Doctors and dentists fought a courageous battle against the havoc caused by war wounds, poor sanitation and disease.

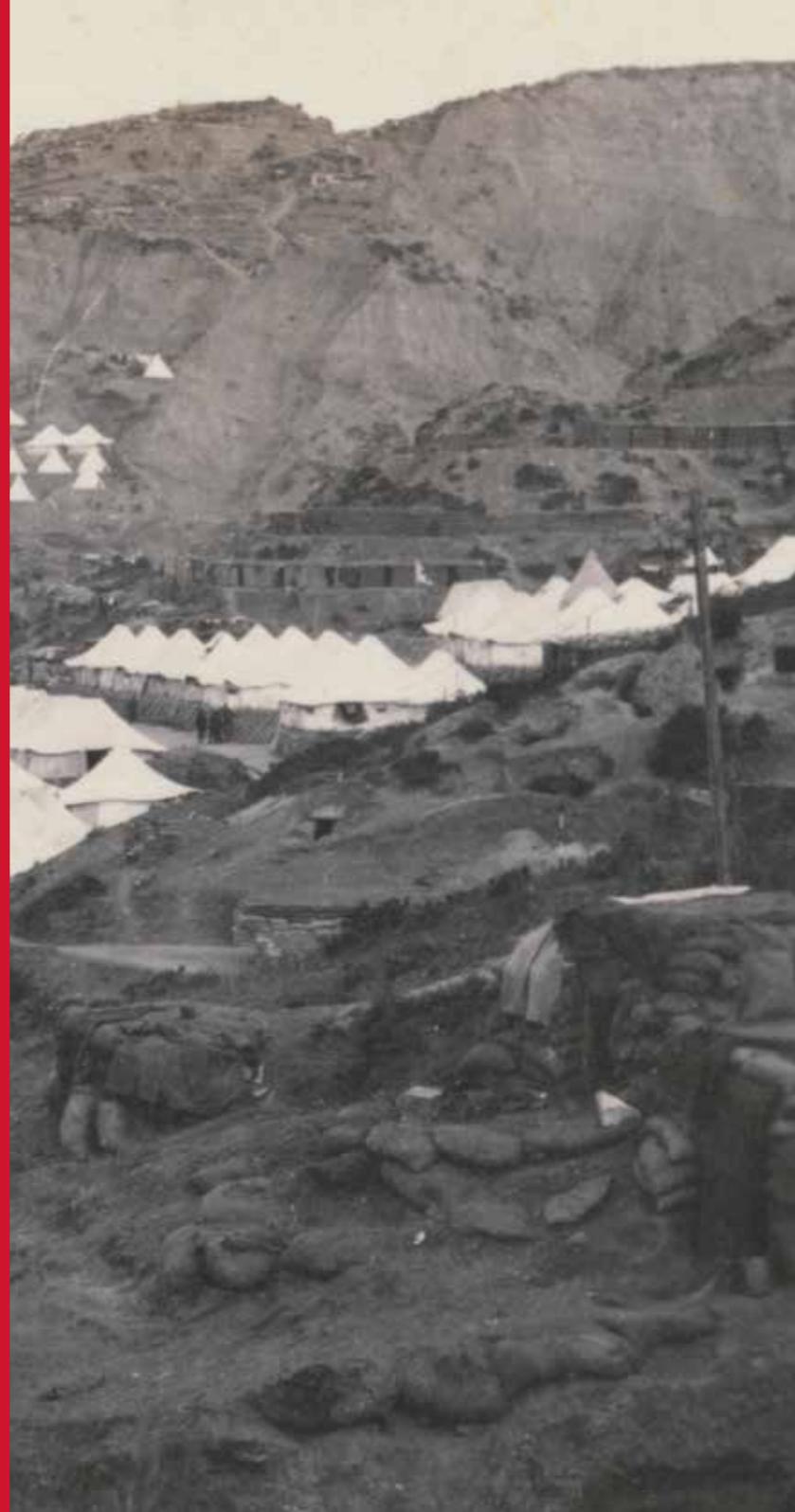
*Compassion and courage: Australian doctors and dentists in the Great War* explores the physical injury, disease, chemical warfare and psychological trauma of World War I, the personnel involved and the resulting medical and dental breakthroughs. The book and exhibition draw upon the museums, archives and library of the University of Melbourne, as well as public and private collections in Australia and internationally, and bring together the research of historians, doctors, dentists, curators and other experts.

Front cover (left to right): Lafayette-Sarony, Sir James Barrett, 1919; cat. 247: Yvonne Rosetti, Captain Arthur Poole Lawrence, 1919; cat. 43: [Algernon] Darge, Dr Gordon Clunes McKay Mathison, 1914.

Back cover: cat. 19: Memorial plaque for Captain Melville Rule Hughes, 1922.

Inside front cover: cat. 232: Tents of a field hospital near Anzac Cove, Gallipoli, c. 1915.

Inside back cover: cat. 97: *Some-where in France* [B section, 2nd Field Ambulance, Tent Division, 1st AIF], May 1916.



# COMPASSION *and* COURAGE

AUSTRALIAN DOCTORS AND DENTISTS  
IN THE GREAT WAR

EDITED BY  
JACQUELINE HEALY

MEDICAL HISTORY MUSEUM  
UNIVERSITY OF MELBOURNE



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Cat. 201 **Australian Dental Hospital, Egypt, 1918**,  
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Ernest Brooks, **Field surgery, Gallipoli, 1917**. G00302, Australian War Memorial.  
A field hospital of the 42nd East Lancashire Territorials at work behind the firing line. The operating surgeon is removing a bullet from the arm of a soldier.





ARMY MEDICAL CORPS, 1<sup>ST</sup> CONTINGENT, A.I.F.

Oct. 1914

Photo by  
"Darge"  
137 Collins St  
Melb

## FOREWORD

The profession of medicine and surgery must always rank as the most noble that men can adopt. The spectacle of a doctor in action among soldiers, in equal danger, and with equal courage, saving life where all others are taking it, allaying pain where all others are causing it ...

—Winston Churchill, *The story of the Malakand Field Force*, 1897

War, as Churchill so clearly states, has always presented complex challenges to the healing professions. The Great War was no exception; it was to cause massive upheaval, severely diminishing the health and social wellbeing of thousands, with a devastating number of casualties. Yet out of the chaos and confusion of trench warfare came innovation in the fields of medicine and dentistry. New treatments, practices and public health awareness emerged that changed many people's lives for the better. The medical and dental students, alumni and staff of the University of Melbourne contributed significantly to the Australian war effort with their expertise and, in many cases, their lives.

The Anzac centenary, honouring Australia's participation in World War I, will be commemorated broadly by many institutions and in many forms between 2014 and 2018. This is part of an Australia-wide commemoration coordinated at a national and state level. The University of Melbourne has a number of events planned. An important part of our program is the exhibition *Compassion and courage: Australian doctors and dentists in the Great War* at the Medical History Museum, which brings together material from the Faculty of Medicine, Dentistry and Health Sciences' three museums, other collections of the University of Melbourne, and private and public holdings Australia-wide, to tell the stories of significant people and innovations. The accompanying publication presents fresh perspectives on the repercussions of World War I for the Australian community through the contribution of the medical and dental professions. Authors include prominent members of those professions, historians and descendants of key individuals. All bring important views on the historical, medical and human cost of war. I thank them all for their contributions.

I also sincerely thank the Victorian Medical Insurance Agency Ltd for generously sponsoring this significant exhibition and book, which commemorate the contributions and sacrifices of the Australian medical and dental professions during World War I.

### Professor Stephen K Smith

Dean, Faculty of Medicine, Dentistry and Health Sciences  
University of Melbourne

Cat. 25 [Algernon] Darge, 'The Soldier's Photographers' (Melbourne), *Army Medical Corps, 1st Contingent, A.I.F.* Oct. 1914, 1914, photograph, 35.6 × 45.5 cm. MHM03878, Medical History Museum, University of Melbourne.



## SPONSOR'S MESSAGE

Supporting the medical and dental professions has always been at the forefront of the work of Victorian Medical Insurance Agency Ltd (VMIAL). Incorporated on 21 April 1926 with a board of directors and membership made up exclusively of doctors and dentists, VMIAL was established not only to provide insurance solutions to doctors and dentists but also to benefit these professions through a number of initiatives and support programs. The company's insurance brand, PSA Insurance, includes a comprehensive portfolio of cover encompassing personal, business, travel, motor vehicle and risk. Importantly, these have been specifically developed to meet the particular needs and demands of practitioners.

A unique feature of PSA Insurance is the commitment, founded in company policy, to reinvest in the medical and dental professions. Our university scholarships help medical and dental students meet course and accommodation costs throughout their studies. At the other end of the spectrum, we are proud to fund a peer visitation program, whereby practising doctors provide companionship to elderly and retired doctors living in aged care facilities. Over the years we have also worked in partnership with medical and dental associations, hospitals, medical health support groups, dental researchers and other important stakeholders in these professions.

This brings us to this exhibition, *Compassion and courage: Australian doctors and dentists in the Great War*. Some years ago we had the privilege of sponsoring the Online Collection of the Medical History Museum at the University of Melbourne. That was an outstanding project for the quality of the exhibits and their importance to Australian medical history. We therefore have no hesitation in sponsoring the current exhibition, not only on account of the significance of the subject matter during this Anzac centennial year, but also because it highlights and commemorates the valour and courageous efforts of doctors and dentists during the war. PSA Insurance is proud to be associated with this exhibition and publication.

PSA Insurance benefits the medical and dental professions not only by offering competitive and quality insurance products, but also by contributing, in a most tangible way, to these professions through many and varied life-enriching programs. You'll agree with me this is a unique proposition.

### Dr Bruce E Taylor

Chairman, Victorian Medical Insurance Agency Ltd

Cat. 21 John Tye & Son (London), *War Office Medical Division: shell dressing*, 1917, cloth, tape, thread, glass and iodine, 6.2 × 13.0 cm. MHM04530, Medical History Museum, University of Melbourne.

Cat. 154 *Splint*, c. 1917, gypsum and cast metal (brass alloy), 4.0 × 8.0 × 6.5 cm. 2654, gift of Major Kenneth Russell, Henry Forman Atkinson Dental Museum, University of Melbourne.



Lieutenant Rupert Balfe. (Fifth Year Med.)  
Killed in Action, Gallipoli, April, 1915.

## PREFACE

At the landing at Gallipoli on 25 April 1915, Lieutenant (Joseph) Rupert Balfe (born in 1890), a fifth-year medical student, was killed at Pine Ridge. His death was the first to be acknowledged on an honour roll published in *The Speculum*, the University of Melbourne medical students' magazine, a roll that was to grow, tragically and steadily, through the war years.

Balfe had been an excellent student and sportsman, particularly in football and athletics. Although separated by years of experience, he was linked to Captain Herbert Hunter by his desire to serve his country and by his sporting prowess. Hunter, born in 1881, was a dentist and champion athlete; he landed on the same day Balfe died, only to be killed later at Cape Helles, on 8 May.

Many medical and dental students, staff and alumni of the University of Melbourne contributed to the war effort through their military service and professional dedication. Students were eventually discouraged from enlisting and were pressured to finish their degrees to ensure that adequate medical expertise would be available. World War I was to reshape many aspects of medicine and would be a catalyst for social change in Australia, as exemplified by the contribution of women doctors such as Mary De Garis and Helen Sexton. Images of the students and staff during the war years and other evidence of the contributions of alumni are held in the museum collections of the Faculty of Medicine, Dentistry and Health Sciences.

The exhibition *Compassion and courage: Australian doctors and dentists in the Great War* includes artworks, artefacts, objects, documents and ephemera from the Medical History Museum, the Henry Forman Atkinson Dental Museum, the University of Melbourne Archives and the University Library. There are pathology specimens from the Harry Brookes Allen Museum of Anatomy and Pathology, as well as material from the Australian War Memorial, the Royal Australasian College of Surgeons, other state and national institutions, and private collections. I thank all the lenders, in particular the private individuals who have entrusted us with items of great family and personal significance.

*Compassion and courage: Australian doctors and dentists in the Great War* acknowledges the contribution of the University of Melbourne and many others during World War I and reminds us of the heavy cost of war.

### Professor Mark Cook

Chair, Medical History Museum Advisory Committee

Cat. 184 *Lieutenant Rupert Balfe. (Fifth Year Med.) Killed in Action, Gallipoli, April, 1915*, *The Speculum: The Journal of the Melbourne Medical Students' Society*, no. 93, July 1915, p. 137. Special Collections, Baillieu Library, University of Melbourne.

## COMPASSION AND COURAGE

War has always been a catalyst for change in the fields of medicine and dentistry. Out of the chaos created by conflict comes the need for innovation to deal with its consequences. World War I was not like any war that had been fought before. It brought new forms of destructive technology: machine guns, artillery and poisonous gas, as well as a significantly different terrain for warfare: the trenches. This created diverse and complex challenges concerning infectious disease, treatment of wounds, psychological trauma and hygiene. The health professions responded with compassion and courage.

Starting with the landing at Gallipoli, Australian medical professionals cared for the sick and the wounded under extremely difficult conditions: under fire on the battlefield; in casualty clearing stations close to the front lines; and in large hospitals in Egypt, France and England. The Australian Army Medical Service began as an adjunct to Britain's Royal Army Medical Corps (RAMC) but by 1918 had become an independent entity.<sup>1</sup>

Surprisingly, the Australian armed services initially had no dental corps—medical units had to deal with dental problems. Many dentists enlisted but their skills were not used. The first dentist to be formally attached to a medical unit was John Henderson, a fourth-year medical student deployed with the Australian Naval and Military Expeditionary Force in the Pacific in 1915. He was to die at Pozieres in 1916. Dentists were later to play a crucial role as oral and maxillofacial surgeons at Sidcup, England, restoring the faces of servicemen severely disfigured by explosions or gunfire. By 1918 the role of dentists in maintaining the health and wellbeing of troops was integrated into the wider health services provided to the military.

Using personal histories, this exhibition and publication explore the role of Australian medical professionals during World War I and the private and professional challenges they faced, focusing particularly on students, staff and alumni of the University of Melbourne. At a time of great social and technological revolution and discovery, Australians were at the forefront.

The number of Australian soldiers killed in World War I was in the order of 60 000, an overwhelming toll on an emerging nation. David Noonan's essay presents ground-breaking research that challenges the official account of the war's casualties. He argues, supported by extensive statistical evidence, that fewer service personnel disembarked and a greater number were killed or injured than the official statistics reveal:

Cat. 27 Metters Limited (Adelaide, established 1891), **Spittoon**, c. 1900, iron and enamel, 7.5 cm × 21.5 cm diameter. Barrie Thompson Collection, MHML0218, Medical History Museum, University of Melbourne.

Cat. 28 **Spittoon**, c. 1880, glazed earthenware, 8.1 cm × 18.1 cm diameter. Gift of Dr Eric Cunningham Dax, 1986, MHM01692, Medical History Museum, University of Melbourne.



Total hospitalisations for wounding, injury and illness suffered by the men of the AIF exceeded 750 000 admissions, five times greater than that officially acknowledged today. Those men who survived the war had been, on average, admitted to hospital three times each, of which one admission was for wounding. Over half the survivors were discharged as medically unfit; of these men at least one in five was suffering from shell shock.

Such information sets the scene in which the medical and dental professions were working.

Repeated hospital admissions reflected the range of health problems caused by the dire conditions in the trenches, such as trench foot, typhoid and Spanish influenza, as well as social diseases such as venereal disease. New forms of weapons such as mustard gas and heavy artillery created wounds of a type never before encountered. Professor Robin Cooke examines the use of human tissue specimens from deceased soldiers, collected by Major Keith Inglis, to analyse the conditions faced by soldiers in the trenches. Peter Hobbins focuses on individuals associated with the University of Melbourne who were pivotal in identifying the infectious diseases ravaging soldiers, such as Charles James Martin, who was instrumental in establishing pathology laboratories in field hospitals. Martin worked closely with William Upjohn and Charles Kellaway, who was later to become director of the Walter and Eliza Hall Institute.

Despite awareness among military authorities of the prevalence of venereal disease, no preventive measures were taken when outfitting soldiers going overseas. Raden Dunbar's essay examines how soldiers with venereal disease were treated under the banner of exclusion and shame. It was University of Melbourne lecturer and researcher (and later vice-chancellor and chancellor) James Barrett who campaigned for more open debate and preventive measures, both during and after the war.

There was a similar reluctance to discuss openly the psychological problems caused by war. Ann Westmore's essay examines Clarence Godfrey's contribution to the diagnosis and treatment of shell shock—his pioneering approach formed a basis for understanding this debilitating condition.

Other fundamental changes related to the role of dentists in the armed forces. The authorities' initial oversight in failing to exploit the skills of dentists in the war was eventually reversed. Ross Bastiaan's essay presents previously unpublished material to demonstrate the circumstances under which the value of dental services came to be recognised. Rowan Story's contribution further explores the important role that Australian oral and maxillofacial surgeons played in developing plastic surgery, in particular Major Kenneth Russell.

Cat. 162 Australian official photographer, **The surgery of 101st Australian Dental Unit attached to 5th Division Artillery, erected in a field in France**, 3 June 1918, photographic print from glass negative; left to right: Private Ian McLay, Captain Edward Middleton Gawley, patient, Staff Sergeant Frederick Marles. 3142, Henry Forman Atkinson Dental Museum, University of Melbourne.



Many doctors and dentists were among the war's casualties, thus adding to a shortage of medical expertise and an irreplaceable loss of talented individuals. Captain Gordon Clunes McKay Mathison landed at Gallipoli as a battalion doctor on the original Anzac Day; in the same week he was appointed inaugural director of the Walter and Eliza Hall Institute. This brilliant medical researcher was fatally wounded on 9 May 1915. Professor EH Starling of University College London wrote that 'for the science of medicine throughout the world, the loss is irreparable'. Ross McMullin's essay examines this irredeemable waste of a great medical and scientific mind.

In June 1917 the Melbourne medical students' magazine *The Speculum* published a record of the war service of the Victorian Branch of the medical profession. It reported that 219 doctors were still on active service, 82 had returned from the front, and 19 had been killed on service. These 320 doctors included 79 new graduates, the other 241 coming from the general body of medical practitioners in Victoria. Thus, 40 per cent of the 'medical men' in the state volunteered. Those not accepted for active service worked at base hospitals with the AAMC Reserve.<sup>2</sup>

Despite the immediate need for medical personnel as soon as World War I was declared, both the Australian and British armed forces refused to employ women doctors. Despite this, 16 Australian women doctors travelled to Britain to offer their services. They worked in various voluntary and paid positions, often with Allied governments and organisations such as Red Cross and the Scottish Women's Hospitals. Historian Heather Sheard writes about these remarkable individuals, including surgeon Helen Sexton, one of the first seven women to have graduated in medicine at the University of Melbourne, and who, when in her fifties, set up a hospital in Paris to care for those injured by war. Another Melbourne Medical School alumna, Mary De Garis, was to be awarded the Order of St Sava by the Serbian government. De Garis's biographer, Ruth Lee, writes about her contribution at a field hospital in Serbia, where one of the volunteers, the writer Stella 'Miles' Franklin, described the calm manner in which Dr De Garis worked under fire. Significantly, De Garis's family have loaned the medal of the Order of St Sava (3rd class), the highest order a civilian could receive, which was presented to her by King Alexander of Serbia (cat. 245, p. 109). Melbourne graduates Vera Scantlebury and her brother George Clifford Scantlebury stand together in uniform in a photograph donated by Vera's daughter, Catherine James Bassett (cat. 218, p. 107). Vera was to serve in London and George in Europe—Sheard elaborates on their different paths.

Cat. 125 Colonel ORA Julian, *Medical arrangements for collection and treatment of sick and wounded of the Division*, 1915, [refers to] *Reference map no. 28 (1 x 40,000)*. [issued by] O.R.A. Julian, Colonel. A.M.S. / A.D.M.S. 17th Divn. / 26th August, 1915, print on paper, 34.3 x 21.6 cm. MHMA1684.6, Australian Medical Association Archive, Medical History Museum, University of Melbourne.

Cat. 126 Colonel ORA Julian, *Note to Dr Basil Walter Cohen (1885-1972)*, 27 August 1915, accompanied *Medical arrangements for collection and treatment of sick and wounded ...*, inscribed 1584 / Lieut BW Cohen / MVFc. Pimissit Battn / 17th Div / For your information. / Please acknowledge receipt. / ORA. Julian / Colonel A.M.S. / A.D.M.S. 17th Div. / 27.8.15, ink on paper, 20.5 x 8.5 cm., MHMA1684.7, Australian Medical Association Archive, Medical History Museum, University of Melbourne.

Medical arrangements for collection and treatment of sick and wounded of the Division. Reference map No. 28 (1 x 40,000).

1. Those in and near the Trenches.
  - (a) Regimental Aid Posts.
    - (1) Building at Brass Roads, known as the BRASSERIE N. 5. 6. 9. 2. Extra equip: 2 wheeled stretchers 24 blankets.
    - (2) Building opposite Church J. 31. 0. 4. 4. Extra Equip: 2 wheeled stretchers 24 blankets.
    - (3) Dug Out. North of Banab. J. 32. 6. 4. 5. Extra Equip: 1 wheeled stretcher 12 blankets. (This post is for the Battalion on the left of front line. Wounded are transferred from here to Bhatowin (26. 6. 5. 7.))
  - (b) Collecting Post. At building known as the LAITERIE H. 33. 6. 5. 8. Extra equip: 3 wheeled stretchers 1 Motor Ambulance 12 blankets.
  - (c) Advanced Dressing Station NY 6. 8. 7 In school buildings 6. 34. 0. 6. 2
  - (d) Dressing Station In buildings 6. 34. 2. 9. 2.

1584  
Lieut B. W. Cohen  
M.V.F.C. Pimissit Battn  
17th Div

For your  
information.  
Please acknowledge  
receipt.

ORA Julian  
Colonel A.M.S.  
A.D.M.S.  
17th Div

27. 8. 15

Importantly, this exhibition brings to light significant material from the Faculty of Medicine, Dentistry and Health Sciences' three cultural collections: the Medical History Museum, the Harry Brookes Allen Museum of Anatomy and Pathology and the Henry Forman Atkinson Dental Museum, as well as records from the University of Melbourne Archives and publications from the University Library—material whose provenance links it directly to this university's contribution during a pivotal period of social and technological change in medicine and dentistry. Also on display are items loaned by major cultural institutions such as the Australian War Memorial and the Royal Australasian College of Surgeons and, even more significantly, previously unseen material from private collections. These photographs, ephemera, equipment and specimens reveal the crucial contributions of individuals. The catalogue highlights items that poignantly evoke key people and turning points during the war years, and which are discussed by leading medical practitioners, historians, curators and family members.

Some of the items tell us about student and staff views on the war effort. For example, staff and alumni of the medical and dental schools contributed greatly through their service in the armed forces and through their expertise. Students too had a great desire to contribute and readily enlisted. But this caused a dilemma, as fully trained practitioners were needed. An extract from *The Speculum*, titled 'Notes from the front', explains the contributions of students at the front line (see cat. 184, p. 117). Often the work of students was restricted to the duties of stretcher bearers, but Eric William Beresford Woods, who had not yet finished his degree at Melbourne when he went to Gallipoli for several months, administered anaesthetics there. Michael Cooper and Greg Morris examine Woods' contribution.

Historian Ross Jones comments on the debate that raged in the medical school about students enlisting. The correspondence of Professor Sir Harry Brookes Allen reveals his dialogue with military authorities about the provision of doctors and the need to discourage students from enlisting. As a result, the medical course was reduced in length for the duration. On a more personal note, Professor Allen's poetry (see cat. 142, p. 157) embodies his personal pain at the intensity of grief felt by the university community of students, recent graduates, staff and alumni.

Important material located in the Australian Medical Association (AMA) Archive, part of the Medical History Museum collection, provides great insight into how doctors operated in the field. Dr Basil Walter Cohen's papers from his time on the Western Front include trench maps (see cat. 134, p. 143), instructions for evacuating and treating the wounded, and a book of abbreviations and terms used on French maps. Dr Tony Bartone, president of the AMA, writes about this significant material. Surgeon Laurie Simpson explains the extraordinary reduction in amputations and fatalities brought about by the use of Thomas's splint; a pamphlet with instructions for its use was among the papers Dr Cohen used in the

Cat. 144 *Bravo Gallipoli: In memory of ANZAC: 25th April, 1915* (front cover), Melbourne: No. 5 Australian General Hospital (Base Hospital), 1918, photographic souvenir in printed cover, 14.3 × 22.6 cm. MHMA1997.1, Australian Medical Association Archive, Medical History Museum, University of Melbourne.



field (see cat. 128, p. 121). An official war photograph of a surgeon in a field hospital, dated 23 November 1917, shows Lieutenant Colonel Alfred Fay Maclure operating in France (see cat. 56, p. 145). He was to accompany William Upjohn to Paris to further examine ways of treating wounds using improved antiseptics. Geoff McColl, head of Melbourne Medical School, writes about Maclure's contribution. The case notes of Helen Sexton were also located in the archive; these reveal the types of cases she handled, including wounds and mustard gas poisoning (see cat. 67, p. 105).

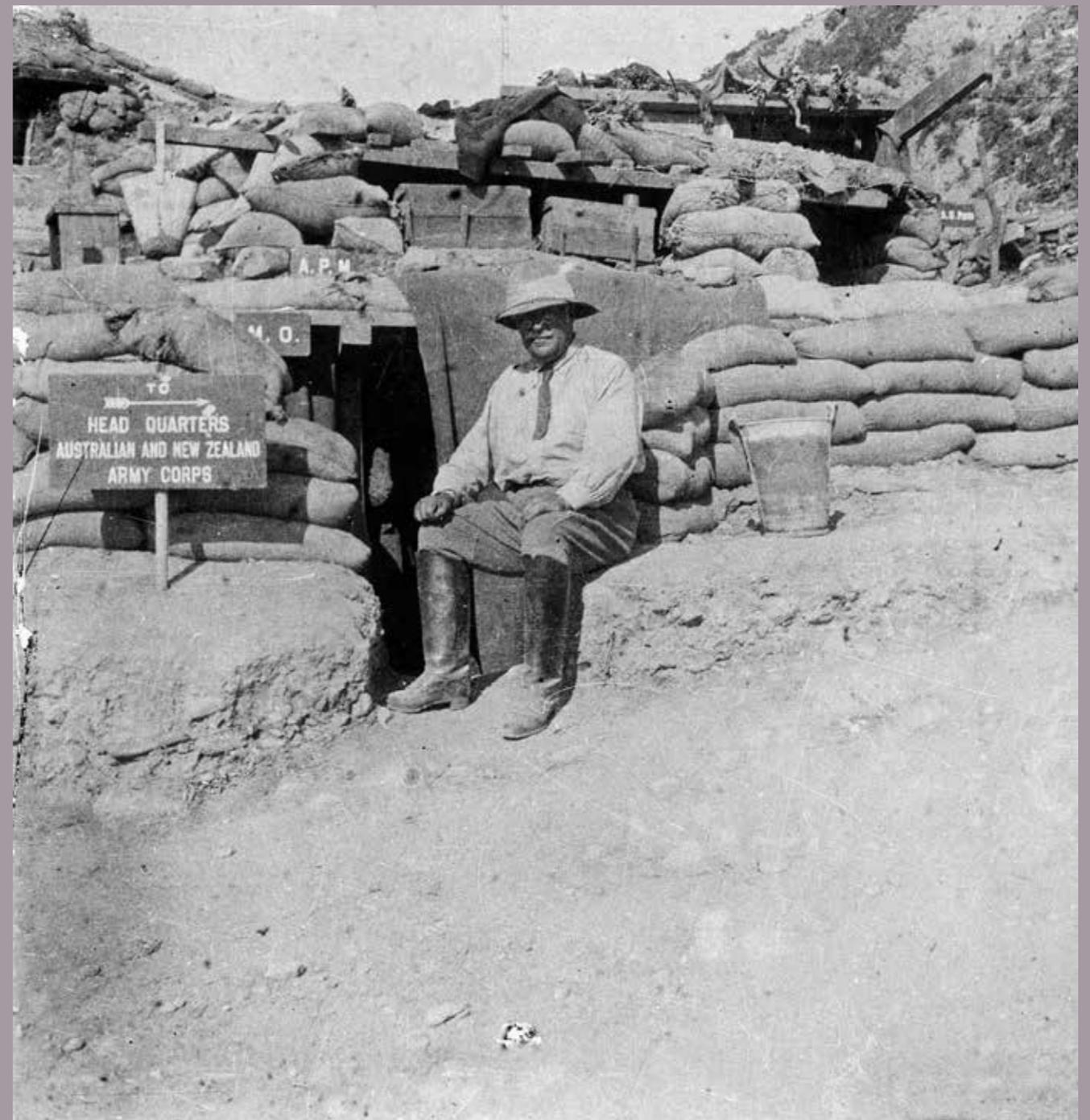
Gas warfare created major challenges for soldiers and their doctors. University archivist Katrina Dean writes about the scientists in the Chemistry Department of the University of Melbourne who developed a gas mask, lent for this display by the Australian War Memorial (see cat. 185, p. 119). Pathology specimens collected from soldiers would help doctors find better ways of dealing with the effects of mustard gas; some are in the Harry Brookes Allen Museum of Anatomy and Pathology and are rarely exhibited (see cats. 167, 169, 171, p. 131). Ryan Jefferies explains their provenance.

Also in the exhibition are important devices for assisting with facial reconstruction, developed by Australian dentist Major Kenneth Russell (see cats. 152, 154, 155, 156, pp. xviii, 31). Henry Atkinson describes the role of these splints. Women dentists also served, some by assessing whether soldiers were fit for service, as shown in a picture of Dr Fannie Gray treating a soldier (see cat. 158, p. 111). Dentists Mina Borromeo and Mike Morgan elaborate on the wartime role of Australia's women dentists.

Private collections have been the source of other significant items. Infectious diseases were prevalent and spread rapidly under wartime conditions. Dr Robert Murray Gillies' diary is a first-hand account of Spanish influenza infecting the troop ship on which he travelled to Europe (see cat. 243, p. 135). His son, Dr R Ian Gillies, tells the story. Another family story comes from John Lawrence, whose grandfather, Arthur Poole Lawrence, was a doctor and Military Cross recipient. At the end of the war, the French government commissioned artist Yvonne Rosetti to create portraits of the Allied soldiers for an exhibition at the Louvre. Captain Lawrence was chosen to represent Australia, depicted as a digger in a slouch hat. The crayon sketch for this portrait, generously loaned by another grandson, Nicholas Anderson, is in the exhibition, on public display for the first time (see cat. 247, p. 141 and front cover).

Other significant images include sketches by artist Daryl Lindsay of patients at the Queen's Hospital at Sidcup, which evoke the physical trauma and emotional pain of patients with severe facial injuries (see cats. 233, 234, 235, pp. 81, 123). These have been loaned by the Royal Australasian College of Surgeons and Louise Murray describes their artistic and medical significance. Equally powerful are photographs taken by Charles Snodgrass Ryan, assistant director of medical services in the AIF, which include depictions of soldiers burying their dead comrades during the truce on 24 May 1915 (see cat. 222, p. 139). Combined

Cat. 224 Surgeon General Charles Snodgrass Ryan (1853-1926), **Surgeon General Charles Snodgrass Ryan sitting outside his dugout, Gallipoli Peninsula, Turkey, May 1915**, photograph. P02648.029, Australian War Memorial.



with Captain Edward Brennan's eyewitness account of the Gallipoli landing from the July 1915 edition of *The Speculum* (see p. 136), this image vividly shows the conditions under which doctors and dentists worked on the battlefield (see cat. 223, p. 137).

Important organisations were formed out of the circumstances of World War I; some, such as Australian Red Cross and the Commonwealth Serum Laboratories, still greatly benefit the Australian community. Australian Red Cross was founded at a meeting in Melbourne's Government House, just nine days after the war began. It provided essential services, supplies and advice to the armed forces and their families. The Red Cross certificate on display exemplifies a community of people who came together to support the war effort (see cat. 29, p. 147); Melanie Oppenheimer outlines their contribution. The war with Germany also jeopardised Australia's dependable supply of drugs; this led to the establishment of Commonwealth Serum Laboratories in 1916 (see cat. 231, p. 149). CSL chief scientist Andrew Cuthbertson examines the organisation's beginnings.

Australia lost more than 60 000 soldiers in the Great War and, following the Armistice, memorials were raised in every community throughout the nation. The British government acknowledged the contribution of the Empire by presenting memorial plaques to the next of kin of those who had died on active service. More than one million were issued, and they began reaching Australia in 1922. They were colloquially known as the 'Death penny'; the plaque issued to the family of Melville Rule Hughes is exhibited (see cat. 19, p. 151 and back cover). Hughes was a surgeon and a graduate of Melbourne Medical School, whose family endowed a scholarship to the school in 1990. Professor Andrew Kaye writes about this legacy.

Another type of memorial is the Herbert Hunter Memorial Shield, competed for annually by the Victorian Athletics Association to honour dentist Herbert Hunter, who died at Gallipoli. Neville Regan writes about this remarkable athlete and talented dentist. James Robertson writes about the Australian College of Dentistry roll of honour (see cat. 146, p. 153), which records the names of more than 100 staff and students who served, seven of whom died.

In the centenary of Anzac, this exhibition opens up fresh insights into the work of Australian doctors and dentists in the Great War. Even more importantly, it acknowledges the contribution and sacrifice of many and their legacy of compassion and courage.

#### Dr Jacqueline Healy

Senior Curator, Medical History Museum and Henry Forman Atkinson Dental Museum

1 1918: *Australians in France—unsung heroes—Australia's medical personnel*, Australian War Memorial, [www.awm.gov.au/exhibitions/1918/medical/](http://www.awm.gov.au/exhibitions/1918/medical/).

2 'The service of the medical profession', *The Speculum: The Journal of the Melbourne Medical Students' Society*, no. 98, June 1917, p. 12.

Cat. 184 'With the Red Cross', from *The Speculum: The Journal of the Melbourne Medical Students' Society*, May 1919 (detail, colour altered). Special Collections, Baillieu Library, University of Melbourne.

## MEDICINE *on the* BATTLEFIELD

THE SPECULUM. May, 1919.



## THOSE WE FORGET: RECOUNTING AUSTRALIAN CASUALTIES OF THE FIRST WORLD WAR

The official numbers of casualties among the men of the Australian Imperial Force (AIF) in the First World War are seriously wrong in multiple categories. The official figures comprise the limited statistics of some 60 000 dead and 155 000 woundings: a total of 215 000 casualties among a purported 331 000 civilian soldiers who went to war. While the number killed during the war is approximately correct, those who died prematurely after the war have effectively been ignored. Further, the woundings figures are a significant miscalculation because, contrary to accepted international practice, they omit hospitalisations for injury and illness, while overestimating the number of men who saw action.

Statistical research examining over 12 000 individual soldiers' records, incorporating the main study of a random sample of 9600, has revealed that total hospitalisations for wounding, injury and illness suffered by the men of the AIF exceeded 750 000 admissions—five times greater than that officially acknowledged today. Those men who survived the war had been, on average, admitted to hospital three times each, of which one admission was for wounding. Over half the survivors were discharged as medically unfit; of these men at least one in five was suffering from shell shock.

Why did this devastation of the AIF take nearly one hundred years to come to light? Was it due to a conspiracy to suppress the toll, incompetence by Australia's official war historians CEW Bean and AG Butler, or simply an unquestioning acceptance of the official record? The findings of this research, coincidentally published in the centennial year of the outbreak of the war,<sup>1</sup> are startling and rewrite Australia's casualty statistics of the First World War; *Lest we forget*.

The publication of the official Australian casualty figures began with Bean in 1921, in the first volume of the *Official history of Australia in the war of 1914–1918*. In 1936, figures were published by Ernest Scott, professor of history at the University of Melbourne, in volume 11 of the series. The official medical statistics were compiled and analysed in Butler's three-volume work, *The Australian Army Medical Services in the war of 1914–1918*, of which the last and most significant volume was published in 1942 (cat. 242). Later that year in the capacity of editor-in-chief of Australia's official war history, overseeing Scott and Butler, Bean published the last volume, volume 6. These three authors are universally accepted as the authorities on the human cost of this conflict for the men of the AIF. Remarkably, their contributions have remained essentially unquestioned.

Cat. 79 *The Third Australian Division marching through the main street of Peronne, in France, on October 4th. 1918, passing an American Division making its way to a sector of the fighting area from which the Australians had just withdrawn*, 1918, photograph, 17.5 × 20.5 cm (image); 19.0 × 22.0 cm (mount), written in ink on back *My father, Dr M.H. O'Sullivan recognised himself in this photograph from his orderly who was facing him*. MHMA1328.1, Australian Medical Association Archive, Medical History Museum, University of Melbourne.



M.3501. The Third Australian Division marching through the main street of Peronne, in France, on October 4th. 1918, passing an American Division making its way to a sector of the fighting area from which the Australians had just been withdrawn.

Contrary to the universal belief that a review of the casualty data for the First World War contained in the hundreds of thousands of files held at the National Archives of Australia in Canberra and Melbourne would be practically impossible, there was a way forward. This official casualty record could be tested by using the mine of information contained in the 416 000 unique and extraordinarily detailed AIF individual soldier attestation papers, after subjecting them to a rigorous random sampling using Gallup polling methods, verified by the Statistical Consulting Centre in the Department of Mathematics and Statistics at the University of Melbourne. By the statistical analysis of over 9600 soldier papers, physically collecting data page by page, it was possible to produce results in the 95 per cent confidence level to +/-1 per cent accuracy. A recount of these records, creating a 400 000-cell spreadsheet, enables us to challenge the prevailing understanding of Australia's casualty figures and, indeed, to question the understandings of their medical basis. It can also accurately quantify for the first time the post-war effects stated or implied in an individual's AIF service record, which had previously been only guessed at.

#### Enlistments

The official figure of 416 809 AIF enlistments was overstated by nearly 10 per cent, despite a royal commission in 1918 examining, verifying and reporting on a large proportion of this number. (Lasting only eight days, it remains the shortest royal commission in Australian history.) By sampling across all the attestation papers, a more accurate estimate is 379 000 men (+/-650).<sup>2</sup> The balance of the official figure can be explained, at best, as applications to enlist: approximately 36 000 men were rejected, mainly for failing medical assessments due to conditions including hernias, dental problems, even varicocele (seven per cent or 2500 men), a condition resembling varicose veins of the testes, which is rarely painful but may lead to low sperm count. Why this was a cause for rejection to be a soldier is unknown. The number 416 809 should be removed from the headline official figures, not only because it is incorrect, but also because its original purpose of inflating Australia's contribution to the conflict has long been unjustifiable and was simply politicking at the time.

In addition, a large proportion of the selected men never set foot in any army base in any theatre of war. For example, approximately 8000 men deserted before embarkation. The sample analysis corrects the official figure of 331 781 embarkations and determines the correct number of effective embarkations for war as about 318 100, with a range of 315 300 to 320 800 at the 95 per cent confidence interval.<sup>3</sup> This finding is critical, as I use this total of 318 100 in all further analysis in this essay. This total essentially defines the field against which I measure all other categories. Its calculation is consistent with the international practice for determining the strength of armies of the main other belligerent countries. Its accuracy is also supported by its proximity to the Commonwealth Statistician's 1938 count



Cat. 144 'Wards 18-20-300 beds', from *Bravo Gallipoli: In memory of ANZAC: 25th April, 1915*, Melbourne: No. 5 Australian General Hospital (Base Hospital), 1918, photographic souvenir in printed cover, 14.3 x 22.6 cm. MHMA1997.1, Australian Medical Association Archive, Medical History Museum, University of Melbourne.

(324 000 embarkations after adjustment for 7500 double counting) based on the 1933 Commonwealth Census. When combined with the logical assertions that troops recalled at sea were not part of Australia's fighting force and that nurses and those who saw service in New Guinea belong in other service categories,<sup>4</sup> the effective strength of the AIF was 318 100 civilian soldiers. It is upon this foundation that the most detailed and accurate analysis of Australian soldiers' commitment to the war can be built.

### Defining 'casualties'

There is one consistent definition used in both Australian and British medical statistical analyses of war casualties from the First World War: that any admission to hospital is counted as a casualty, whether it resulted from wounding, injury or illness.<sup>5</sup> This may seem self-evident but, unfortunately, it is the only consistent approach taken in this field of study. However, disagreement over the definition of 'illness' contributed to the underestimation of casualties. The most difficult category to define was an admission for apparent shell shock. A century ago, when these records were being compiled (whether in the field or in official post-war analyses), significant prejudices, stigma and ignorance prevailed. Multiple terminologies existed, and medical practitioners' disagreement masked the extent and even the legitimacy of the diagnosis of this condition.

This conflict among wartime medical practitioners is most apparent<sup>6</sup> when comparing the goal of the regular military medical officer (to get the soldier back to fighting fitness) with the primary purpose of the majority of medical practitioners, who served temporarily after enlisting from civilian practices and whose broader aim was to cure the patient permanently, rather than merely fix him sufficiently to rejoin the battle.

What was recognised as new early on in this war was not the existence of shell shock *per se*, but the devastating increase in exposure to modern machine-gun and artillery fire. The term 'shell shock' was initially applied to the death of soldiers who bore no physical signs of injury after having been in close proximity to an exploding shell. The definition was later broadened to explain changes in mental and physical performance that seemed to occur consistently after a soldier had been buried in debris, soil and mud thrown up by an exploding shell. The differentiation between physical and mental effects meant that diagnoses recorded on a soldier's record were for 'shell shock (wounding)' or 'shell shock (sick)'. Opposing views were vehemently held over whether sufferers were malingerers, or mentally weak to begin with. Indeed, Butler belonged to the school that believed mental illness was already present in those who displayed symptoms of shell shock, and that only an event was needed to bring it out. He believed the cause to be 'constitutional'. As a result, only about 20 000 admissions for shell shock were included in the official wounding statistic; a further 50 000 were classified as an illness and therefore officially ignored.

Cat. 225 Surgeon General Charles Snodgrass Ryan (1853–1926), **Cape Helles**, May 1915, photograph. P02648.027, Australian War Memorial.



The numerous expressions found in the records of men of the AIF to denote the cause of admission to hospital demonstrate tragically, sometimes euphemistically, clear cases of extreme trauma: a few examples include neuralgia, myalgia, rheumatism, debility, multiple neuritis, disordered action of the heart, tachycardia, melancholitis, neurosis, neurasthenia, hypochondrium neurosis, stress, hysteria, disorder of accommodation, effort syndrome, nervous breakdown, senility, inability to stand noise of shell fire, facial paralysis, facial neuralgia, nervous prostrations, prostrate convulsions, mental instability, insanity, stammering, weak-mindedness and dementia praecox.

On the other hand, data collection for hospital admissions for venereal disease (VD) presented few problems. Detailed records of incidence and treatment were accurately maintained for the purposes of pay suspensions during treatment. But treatment was not the only difficulty; stigma delayed medical attention being sought. The duration of hospitalisation was highly variable but periods of fewer than four weeks were rare; six months was not uncommon: Alex Depena was admitted once for 157 days and Percy Sinclair for 196 days. Reinfection was a compounding factor, as was readmission following premature release from hospital. Charlie Duncan was admitted on five occasions in less than three years, for periods of 96, 18, 80, 54 and 49 days. Indeed, Duncan had trouble staying *out* of hospital; a Queensland drover and horse breaker, he was admitted 12 times, twice due to wounding—much of his overseas service was spent in hospital. Some 55 000 men were admitted for VD, on 70 000 occasions. But the truly staggering result was the unavailability of these men. The average stay in hospital was 50 days but the time taken to return them to their unit (some were treated back in Australia) resulted in a loss of 4 million days, second only to wounding. The ultimate loss was death.

## Death

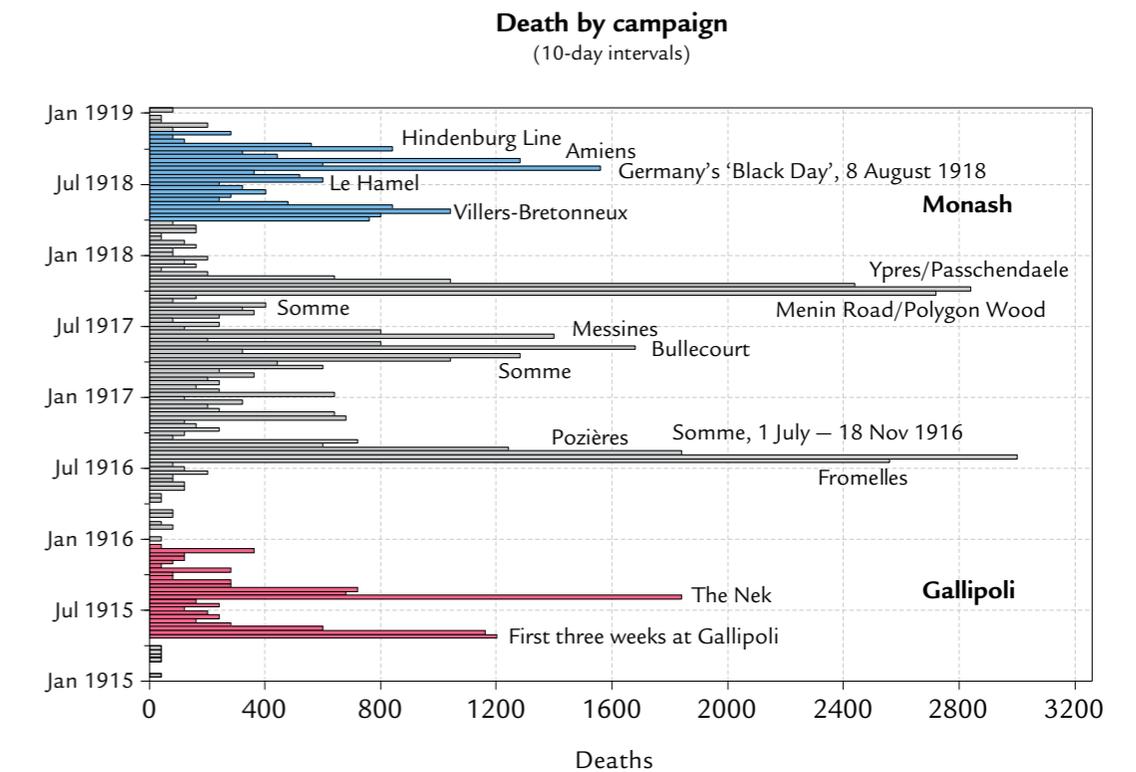
Analysis of the soldier records reveals a death toll higher than the official record, and is presented here in a format that puts into perspective the deadly significance of the main campaigns of the war. During the existence of the AIF, 62 300 men (+/-400) died, 8700 (+/-170) of them from non-battle causes.

The graphic opposite puts the Gallipoli campaign (red) in its place in relation to the disaster of Fromelles. The second spike at Gallipoli represents the spring attempt to take The Nek and Lone Pine, which cost as many men as the fierce fighting required for the landing of the forces on the peninsula. The graphic also shows the period of relative calm in the first six months of 1916, when the AIF was evacuated from Gallipoli to Alexandria and held there for fear of a counter-attack from Turkey. When this did not eventuate, the men were shipped off for service on the Western Front.

After a few months of reorganisation following the landing in France, mainly at Marseilles, the AIF was presented as a *diversion* to the front at Fromelles on 18 July 1916 that resulted in the worst 24 hours for casualty losses of the war. The graphic reveals the

relative losses at Pozières (23 July – 3 September 1916), where Australian artillery killed many Australian soldiers through lost communication and confusion, and the Germans counter-attacked using artillery to obliterate Pozières, now occupied by Australian soldiers.<sup>7</sup> The so-called ‘victory’ at Messines (7–14 June 1917) should be understood as the costly campaign that it actually was. We should also regret the tragedy of the decision of General Sir Douglas Haig, as commander-in-chief, to fight on into the winter and through the mud of 1917, endeavouring to take the higher ground around Passchendaele and break through as part of an equally delusional aim to get to the coast, only to hand back Passchendaele and the ground won at such cost to Australian and Canadian soldiers within weeks, when it was realised that it was strategically indefensible. In January 1918, ‘what had taken four months to win was evacuated in three days’.<sup>8</sup>

The graphic also shows the period of time (blue) when the AIF was under the command of Sir John Monash; after stopping the Germans’ advance at Villers-Bretonneux, the AIF was advancing.

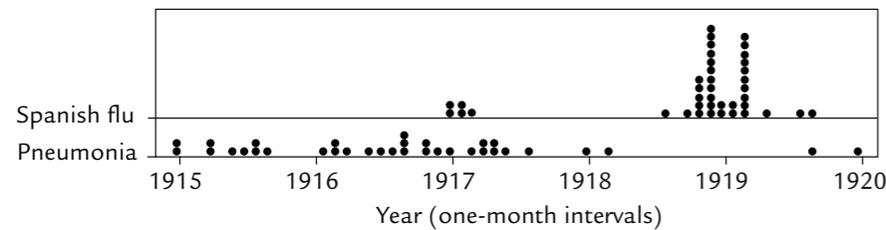


**Other, non-battle causes of death**

The memory of the deadly effect on the AIF of the outbreak of cerebro spinal meningitis (CSM) was somewhat overwhelmed by the pandemic of Spanish influenza. The CSM outbreak predominantly affected troops based in rural camps in Victoria in 1915 and in all Australian states in 1916 and 1917. The medical response of quarantine and isolation was implemented in fits and starts across Australia, but probably provided the experience and preparedness to react extremely well when the Spanish flu virus swept the globe. The effect of this pandemic on the AIF was relatively minor; for example the United States of America had more deaths from ‘pneumonia’, other illnesses and accidents in depots at home before men had left for war (37 400) than men killed in action in the war itself (36 700).

**Relative occurrence and frequency of Spanish influenza, pneumonia**

Spanish influenza claimed 1600 AIF lives. Pneumonia claimed 1330.



The timing of suicides was particularly tragic. The concentration of suicides in the three years from 1919 to 1921 is significant: men unprepared and unsupported for what they had to face when they were sent home.

Comparing Australia’s losses for the first time with those of other countries demonstrates that the AIF suffered, as a proportion of its fighting strength, more deaths and more hospitalisations for wounding and illness than did Britain, Germany, France, Canada or the United States.

**Comparative total casualty statistics: Australia and other selected belligerents**

	Deaths as % of army	Non-battle deaths as % of deaths	Hospitalisations for wounding, per 1000	Hospitalisations for illness or injury, per 1000	Total hospitalisations, per 1000	Force in the field	VD admissions, per 1000
USA	8.2%	57%	150	720	870	1 390 000	91
Britain	13.0%	-	310	1040	1350	5 400 000	25
Canada	13.5%	9%	350	950	1300	418 000	158
France	16.8%	13%	540	380*	920*	7 890 000	-
Germany	19.4%	8%	460	1390	1850	10 500 000	27
Australia	20.2%	14%	680	1750	2430	308 000**	184

\* These French figures cannot be verified due to lack of available information.

\*\* Adjusted downwards to allow for 10 000 men who were mainly in Britain and eligible for only one medal (did not see active service in a theatre of war).

**Post-war**

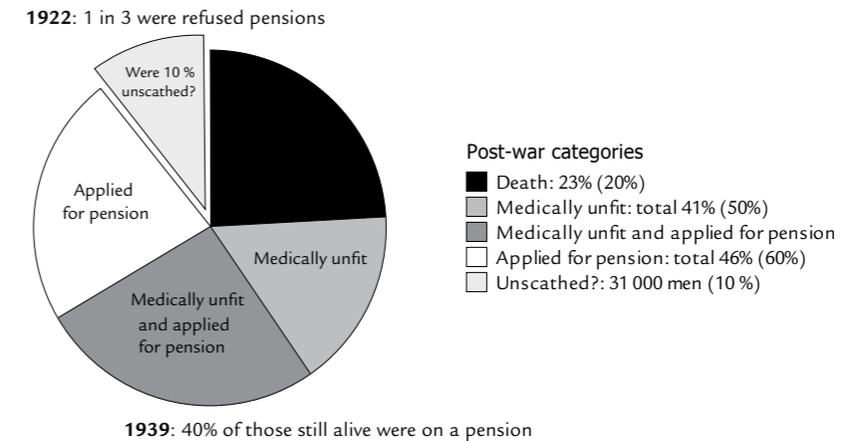
The 1933 Commonwealth Census included questions about war service; analysis by the Commonwealth Superannuation Actuary in 1938 gives us some measure of the rate of premature death of returned servicemen due to war-related illness, injury or suicide from the end of the war until 1933. By extrapolation, a further 8000 ex-servicemen would have had their lives cut short in the period up to the start of the Second World War due to war-related injury, wounds or illness.

In considering these various proportions of servicemen evidently affected in some way following the war, and incorporating them into the graphic with those who paid the ultimate price, it initially appears that only 10 per cent of the men who served in a theatre of war were left unscathed.<sup>9</sup>

But were they? When we examine the records of these 10 per cent of soldiers, and we deduct from this group those hospitalised for wounding, illness or injury during the war, the proportion reduces to just over 3 per cent, or only 11 000 men, who were apparently unaffected.

But even this may not be the right figure. In this analysis, there was no accounting for men who walked away, never wanting to have anything to do with officialdom again for as long as they lived. Nor did it cover those who refused to ask for help because of their pride and the stigma of shell shock being a constitutional weakness, or the shame and stigma of VD; or those who soldiered on with the stigma and destruction of alcoholism. Many of these would be represented in those 25 000 men (or their next of kin) who by 1944 had chosen not to collect their medals.

**Total impact of the First World War on the AIF**



1944: 25 000 men had not collected their medals

## Conclusion

CEW Bean was a journalist answerable to military command and Defence Department bureaucrats. His version of Australia's experience of the First World War has remained largely unquestioned to this day. The hitherto accepted understanding of AIF casualties as totalling 60 000 dead and 155 000 woundings, which fails to reflect the true extent of loss and suffering borne by these civilian soldiers, is part of Bean's legacy, as is the fact that the AIF's withdrawal from the war in the first week of October 1918, devastated and no longer at fighting strength, was conveniently overlooked.

To return to the question raised at the beginning of this essay: was it conspiracy, incompetence or unquestioning acceptance of the official record that allowed for this flawed and misleading casualty record to exist to this day? My answer is that it was all three, each varying in degree in the eye of the beholder.

Based on a robust, statistically sound, conservative analysis of 12 000 soldier records, we can confidently state that all of those who were exposed to this war were damaged, disabled or died from it. Of course, some recovered, a few managed, but the large majority did not. But there is still a problem: the plight of so many of these servicemen remains officially unacknowledged, effectively forgotten. This is contrary to, and indeed a breach of, this nation's pledge: *Lest we forget; We will remember them*. As we commemorate the war's centenary, perhaps it is timely to correct the record and acknowledge the true and full extent of the death and suffering of the men of the AIF in the First World War.

## Dr David C Noonan

- 1 This research was published in David C Noonan, *Those we forget: Recounting Australian casualties of the First World War*, Melbourne University Publishing, 2014, based on the PhD thesis of the same title, completed at the University of Melbourne.
- 2 This is the net AIF enlistment figure after the following corrections: 386 000 contains approximately 4000 naval enlistments (A6700 Series) (AG Butler, *The Australian Army Medical Services in the war of 1914–1918*, vol 3: *Special problems and services*, Canberra: Australian War Memorial, 1942, p. 882), and over 2050 nurses listed as AIF but who should be listed elsewhere, and about 1000 members of the 'Tropical Force' sent to Rabaul, which was not a theatre of war.
- 3 As determined using Minitab: 1 Proportion Test and Confidence Interval.
- 4 An Australian expeditionary force landed at Rabaul after the German garrison had fled. New Guinea was declared not to be a theatre of war in mid-September 1914.
- 5 Butler, *The Australian Army Medical Services in the war of 1914–1918*, vol. 3, pp. 859, 894.
- 6 P Leese, *Shell shock: Traumatic neurosis and the British soldiers of the First World War*, New York: Palgrave Macmillan, 2002, pp. 34, 41.
- 7 R Prior and T Wilson, *The Somme*, New Haven: Yale University Press, 2005, p. 177.
- 8 R Prior and T Wilson, *Passchendaele: The untold story*, Melbourne: Scribe, 2003, p. 200.
- 9 For the sake of thoroughness here is some detail. The aim was to present a very simple graphic so that some overlap is not displayed. The rounded numbers for the AIF are 318 000 embarked; 308 000 were sent to a theatre of war; over 70 000 died (62 000 during the war); 131 000 were discharged medically unfit; a further 76 000 would apply for a pension; another 8000 died in the post-war period (and some would overlap with the previous two numbers); leaving 31 000 or 10 per cent apparently unaffected. Excel allowed access to these files by elimination and found that 20 000 had been hospitalised at least once, leaving 11 000 (3 per cent) apparently unaffected (the overlap of post-war deaths would have no effect on the validity of this number as it was reached without any reference to the post-war deaths).

Cat. 97 *Some-where in France* [B section, 2nd Field Ambulance, Tent Division, 1st AIF], May 1916, photograph, 12.0×17.0 cm. MHMA2110.2, gift of CA Blomeley, 1974, Australian Medical Association Archive, Medical History Museum, University of Melbourne.



# CHART FOR RECORDING INJURIES OF THE JAW.

BRITISH DENTAL ASSOCIATION,

19, HANOVER SQUARE, LONDON, W

DENTAL SURGEON IN CHARGE—

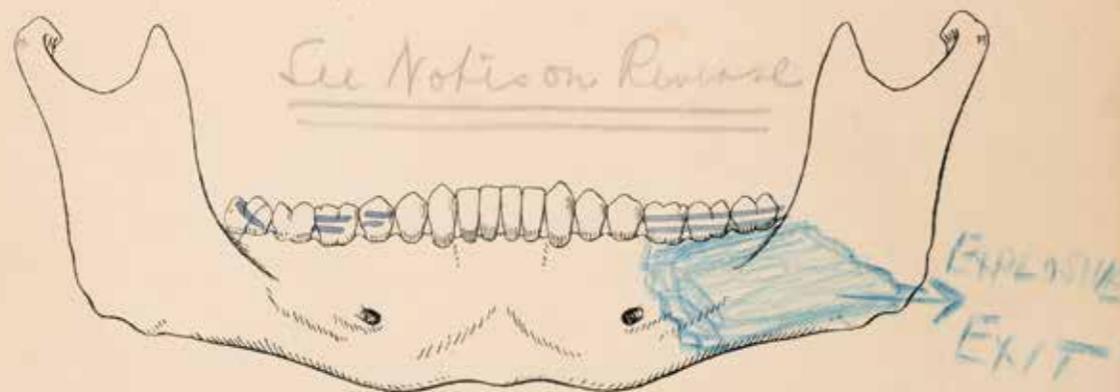
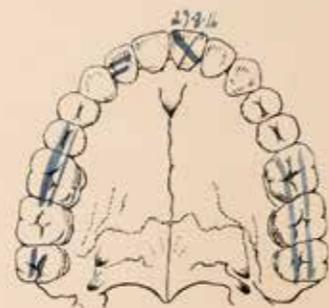
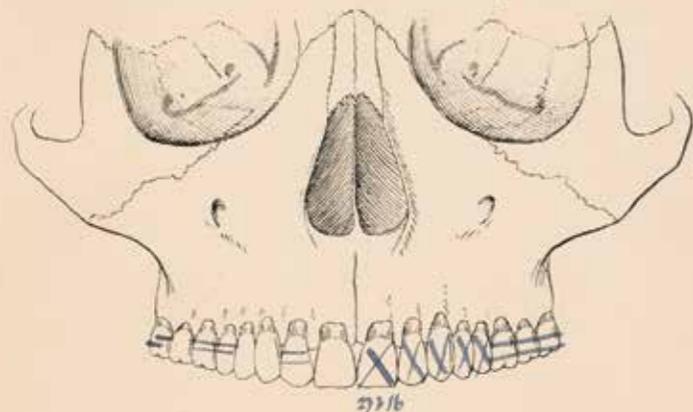
SURGEON IN CHARGE—

*B. Mendelsohn*

*Capt. Charles*

HOSPITAL

*30 Cas. Coy. Stun.*



Patient's Name

*Yeomans*

Age

Regiment

*5th Hottel & Ruby*

Rank

*PT*

No.

*3840*

Date of Injury

*March 26<sup>th</sup> 1916*

Date when Patient came under Dental Treatment

*March 27<sup>th</sup> 1916*

Cause of Injury

*Bullet wound*

Other Injury or Disease

*P.T.O*

## DENTISTRY: THE CINDERELLA OF THE HEALTH SERVICES

Going 'from rags to riches' characterises the progress of Australian military dentistry in World War I. Ignored in the first year of the war, dentistry's vital role in maintaining men on active service soon became apparent and a new branch of the military health services emerged. By the end of the war, dentistry had established itself as a large, coordinated, professional organisation, vital to any military deployment abroad. In the words of official historian AG Butler, 'the Army Dental Service of the AIF was in a very high degree special and peculiar'.

At the outbreak of war there was no dental service in the Australian Army or Navy. Australians who volunteered in 1914 were some of the healthiest and most physically fit men ever to serve the nation. Among the many prerequisites for acceptance into the military in 1914 was a good set of teeth. It was believed that men without healthy teeth could not live on the hard food rations so often provided, or would be susceptible to diseases caused by inadequate dental hygiene, particularly as dentistry could not be performed in a battle zone. On enlistment, the local medical officer, not a dentist, examined the mouth of each recruit for decayed teeth or an excessive number of missing teeth. If either problem was detected, the recruit was rejected until he visited a local dentist to repair the damaged teeth or purchase a denture. Astonishingly, successful recruits with dentures had to demonstrate that they could eat without them.

At the start of the war, one-third of volunteers were rejected on health grounds: almost 16 000 in the first 18 months, the majority not meeting dental standards. The dental profession rose to the challenge of improving the dental health of recruits by offering free services through state dental hospitals, many private practitioners and final-year dental students.

The dental requirements for enlisting men were harsh, considering most had never visited a dentist and 57 per cent of the AIF was under 26 years of age. Some had ignored a decayed or impacted tooth for years. Only five per cent of the AIF came from the professional classes and, as a consequence, most earned low wages. Dentistry was so expensive that a denture or root filling was unaffordable for most.

While in Egypt before the Gallipoli campaign, some AIF troops developed dental problems and were compelled to visit Egyptian dentists. AIF high command saw no problem with this. After the landing at Anzac on 25 April 1915 however, dental problems started to emerge in increasing numbers. The medical officers attached to each battalion of 900 men carried four extraction forceps and, prior to embarkation, had been given rudimentary

Cat. 214 *Chart for recording injuries of the jaw [with details for patient Private R Yeomans]*, c. 1916–18, print, ink and pencil on paper, 26.5 × 21.0 cm. 1979.0044, Sir Arthur Barton Pilgrim Amies Collection, University of Melbourne Archives.

instruction in extracting teeth. Their limited dental skills soon led to complications and, worse still, soldiers were being removed from the front line and shipped back to the island of Lemnos, 96 kilometres away, or Egypt for dental treatment. In the first three months alone, over 600 soldiers were evacuated for dental reasons. The manpower wastage was staggering: of the 18 000 men of the 1st Division, 200 per month were evacuated for dental treatment, not to Lemnos but to Alexandria. A few were seen there by AIF staff but many paid privately for bad dentistry in Cairo, while some were even returned to Anzac untreated. No-one likes a visit to the dentist, but if it meant escaping the carnage of Gallipoli, a dental visit took on a totally new meaning!

So serious did this problem become that General Birdwood, who was commanding the Australians, called for dentally trained soldiers to come forward and offer their skills. Three dentists volunteered from the ranks and established the Australian Army's first operational dental unit. This dental aid post, in the rear lines on the extreme left of Anzac Cove, was established five months after the landing and adjacent to a medical field ambulance. No position on Anzac was safe, as no place was more than 1.6 kilometres from the front line. Evidence of this was provided by a dentist being struck in the leg by Turkish shrapnel while extracting a tooth. Who suffered the most pain now?

These dentists were only permitted to do dentistry after completing their day's work as stretcher-bearers in the field ambulance. Despite this, dental emergencies were being treated, and the flow of soldiers leaving Anzac because of dental problems slowed. Although some needed more extensive treatment offshore, especially for infected wisdom teeth or more serious infections, the dental team at Gallipoli performed 180 fillings, 327 extractions and 60 denture repairs from November until the December evacuation. The need for healthy teeth was highlighted in a narrative on 'iron rations' at Gallipoli. Army biscuits, a major source of food, were very hard on the teeth. One such biscuit was known as the 'forty-niner'; it had 49 holes, said to signify the 49 years it took to bake and 49 bites to chew it.

Even obtaining dental materials on Anzac was nearly impossible; the first sizeable supply arrived two days before the final evacuation. Help was given on Lemnos where, from August 1915, No. 3 Australian General Hospital had two Australian dentists, who treated 1387 soldiers in just four months.

Meanwhile, back in Australia, the Australian Army Medical Corps (AAMC) in January 1915 established a reserve of dentists, who by May were granted commissions in the AIF and allowed to serve abroad. By July the dire lack of dental services in Egypt and Gallipoli forced the Australian government to hurriedly approve the appointment of 14 dental officers, 14 dental mechanics and 13 privates for service in the AIF overseas. Six dentists left Australia immediately for Egypt, but none reached Anzac before the evacuation.

By comparison, the New Zealand Army posted one dental officer to each of the 10 ships carrying men to Egypt in the original Anzac convoy that left Australia in December 1914.



Cat. 202 **Surgery at the Australian Dental Hospital, Egypt**, c. 1918, photograph, 16.0×20.0 cm. 1977.0013, Sir Arthur Barton Pilgrim Amies Collection, University of Melbourne Archives.

Thus, from the beginning at Anzac, dental services were always available on the battlefield to New Zealanders. By November 1915 they were formed into a dental corps—the first in the world—and operated independently of the New Zealand Medical Corps. Not until 1943 was an independent Australian Army Dental Corps established.

After Gallipoli, the Australian Army moved mainly to Europe in 1916, to a much larger and even more deadly conflict on the Western Front, although some soldiers remained in the Middle East and formed the Australian Light Horse. The need for an efficient dental service in the AAMC was by now obvious, but senior British Army ranks showed little interest, having no policy (and, at worst, a negative outlook) on dentistry in the military. This contrast in views is hard to understand: perhaps the British considered access to local French or Belgian dentists an adequate arrangement, or maybe the British had better dental health than the Australians? In any case, a change in the British attitude by 1915 can be linked to an incident in September 1914, when the Head of the British 1st Army, General Sir Douglas Haig, developed a raging toothache. So great was his pain that a civilian dentist was hurriedly brought from Paris, but the episode resulted in a delay in commencing the Battle of the Aisne. Within weeks, army dentists began appearing in British casualty clearing stations in France and Belgium, but the British dental system was significantly inferior to those of other Empire nations, even by war's end.

The Australian Army dental situation now also changed. In 1916, under the guidance of the AAMC, dental officers were appointed and attached to medical units in Britain and, more importantly, in France. These men were assigned to base hospitals and provided most dental services in the field. Organisationally, however, it was chaos: operative areas were often unfloored, roofs leaked and the cold was unbearable. Water and even local anaesthetic would freeze in the bottle, lighting frequently failed, operations were performed by candlelight, and supplies were always short. The appointment of dental staff officers of higher rank helped overcome some of these shortcomings.

The fabrication of dentures became increasingly important as, due to a lowering of the dental requirements, an ever-growing number of Australian recruits were missing some teeth. After Australia's catastrophic casualties in the Battle of the Somme in mid-1916, depleted battalions had to be replenished for the next major attack, teeth or no teeth.

From May 1915 Australian dental officers were given the rank of an honorary lieutenant. Many came directly as graduates from dental school in Melbourne or Sydney. In April 1917 all appointments were made substantive and promotion to captain was permitted after one year's service. The usual army rules applied and for some time the dentists wore side-arms when close to the battlefield.

At first, dental equipment was limited and purchase funds were raised from charities or donations. Later in 1916 military funding was allocated for mobile chairs, foot-operated drills and more specialised equipment. The main dental operative worked in either a small wooden building or a mobile tent. Extractions were more common than restorations but, as

the service expanded, troops often opted for a filling rather than an extraction. Dentures were made by laboratory technicians trained in Australia; these were soldiers who volunteered from front-line units to serve in the base camps to the rear. A soldier would be charged £1 if his denture was lost and had to be remade. Acute ulcerative gingivitis ('trench mouth'), caused by poor dental hygiene, bad diet, exhaustion and the severe cold in the wet trenches, became a major medical problem by 1917, with over 500 cases hospitalised at any time.

The five Australian dental units established in 1916 increased to 188 by the end of the war, including 17 attached to the Australian Light Horse in Palestine and beyond. A dental unit comprised a dental officer and two staff: a sergeant mechanic (dentures) and a corporal organising the clinical session. Radiology was available in the main camps and sterilisation consisted of immersing instruments in hot water. Local anaesthesia by injection was available but not widely used, and a single needle would last a day. The ratio of dental officers to troops improved from 1:7500 in 1916–17, to 1:4250 by 1918–19. This compared to 1:5000 in the Australian population around the year 1900.

At the Armistice in 1918 there were 130 dental officers serving with the AIF abroad—119 operatively and 11 administratively—the highest number of Australian dentists at any time during the war. They were in turn supported by 300 non-commissioned officers. Although no member of any dental unit was killed directly by enemy activity, there were six deaths abroad on active service, and many experienced the terrible influenza pandemic immediately after the war.

In four years of war and from an active force of some 330 000 Australians, more than 300 000 patient visits resulted in 1.2 million amalgam fillings, 310 000 extractions, 132 000 partial dentures and 15 000 full dentures. In addition, over 33 000 British troops sought help from Australian dentists when their own army failed them.

This discussion has focused entirely on the Australian Army, as the Royal Australian Navy had no provisions for dentistry until the very end of the war, when a dental surgeon was appointed to HMAS *Australia*. Navy officers and men were expected to seek treatment at hospitals or private clinics when ashore in Australia or England.

After the war, the legacy of these dentists and their staff to Australia was an appreciation of the importance of providing an efficient, experienced dental service to the nation's fighting men and women, and an ability to adapt to the most trying and difficult circumstances. Lessons learnt were applied immediately in the next conflict, with a dental unit accompanying Australia's first overseas contingents of World War II. The large number of men involved in this war eventually led to the formation of the Army Dental Corps in 1943, which was granted a royal charter in 1948. The Royal Australian Army Dental Corps, and its Navy and Air Force equivalents, have served with distinction in every conflict in which Australia has since been engaged.

**Dr Ross J Bastiaan**

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Top left: cat. 156 **Articulated model and anterior splints**, c. 1920, gypsum and brass, 7.0×9.0×8.0 cm. 2659, gift of Major Kenneth Russell, Henry Forman Atkinson Dental Museum, University of Melbourne.

Top right: cat. 152 **Articulated model and anterior splints**, c. 1920, gypsum, metal and paint, 7.5×8.5×7.0 cm. 2644, gift of Major Kenneth Russell, Henry Forman Atkinson Dental Museum, University of Melbourne.

Bottom left and right: cat. 155 **Articulated model and anterior splints**, c. 1920, gypsum, brass and paint, 7.0×9.0×8.0 cm. 2658, gift of Major Kenneth Russell, Henry Forman Atkinson Dental Museum, University of Melbourne (see also p. 124).



## WOMEN DOCTORS: PROVING THEIR WORTH

In the first few weeks of World War I, women doctors throughout the British Empire attempted to enlist and offer their services to the Allied medical corps. But military officials everywhere declined their offers. For Australia's women doctors the war presented an irony. It was a place of death, illness and frightful wounds to minds and bodies, but also an unprecedented opportunity for professional practice. This article chronicles some of the wartime service of University of Melbourne graduates Helen Sexton, Rachel Champion, Vera Scantlebury and Hilda Bull Esson; University of Sydney graduates Isobel Ormiston and Elsie Dalyell; and Sydney-born and educated Laura Forster (who completed her medical degree in Berne, Switzerland).

By 1914 around 130 women were registered as medical practitioners in Australia, and women had been graduating in medicine from the universities of Adelaide, Melbourne and Sydney for 23 years.<sup>1</sup> But their limited access to hospital residencies and clinical appointments restricted their opportunities to experience and perform the complete range of medical practice. Women doctors were not accepted into either the institutional or informal structures of this male-dominated profession.<sup>2</sup> Surgery and the treatment of male patients were generally regarded as inappropriate endeavours for women doctors in 1914, so their enlistment would have challenged both social and professional norms.<sup>3</sup>

Given this official and unofficial discouragement, why did Australia's women doctors want to go to war? The possibility of professional advancement was one factor, but many women doctors were no less patriotic than their male colleagues and believed that participation was their duty. Brought up in a milieu of anglophile culture and literature that emphasised the supremacy of the British Empire and centrality of the London metropolis, loyalty to Britain and its defence went largely unquestioned. Nor were women doctors immune to the seductions of travel, the possibility of adventure and simply the promise of the unknown. Some anticipated the independence of moving away from family responsibilities and restrictions, especially relevant when the war was so distant. Female collegiality inspired women to join in, and helped sustain their work in times of trauma. Although motivations differed between individuals, the overarching desire was to alleviate what Vera Scantlebury called 'inexpressible suffering'.<sup>4</sup>

Women doctors responded to official discouragement by creating their own opportunities. This was made feasible by the sheer scale of medical services immediately required and the initial inadequacy of army medical resources. Some women joined volunteer hospitals sanctioned by the British Red Cross. The first Australian women doctors

Francis Dodd, *An operation at the Military Hospital, Endell Street: Dr Louisa Garrett, Dr Flora Murray, Dr Winifred Buckley*, c. 1920. Art 4084 © Imperial War Museum.

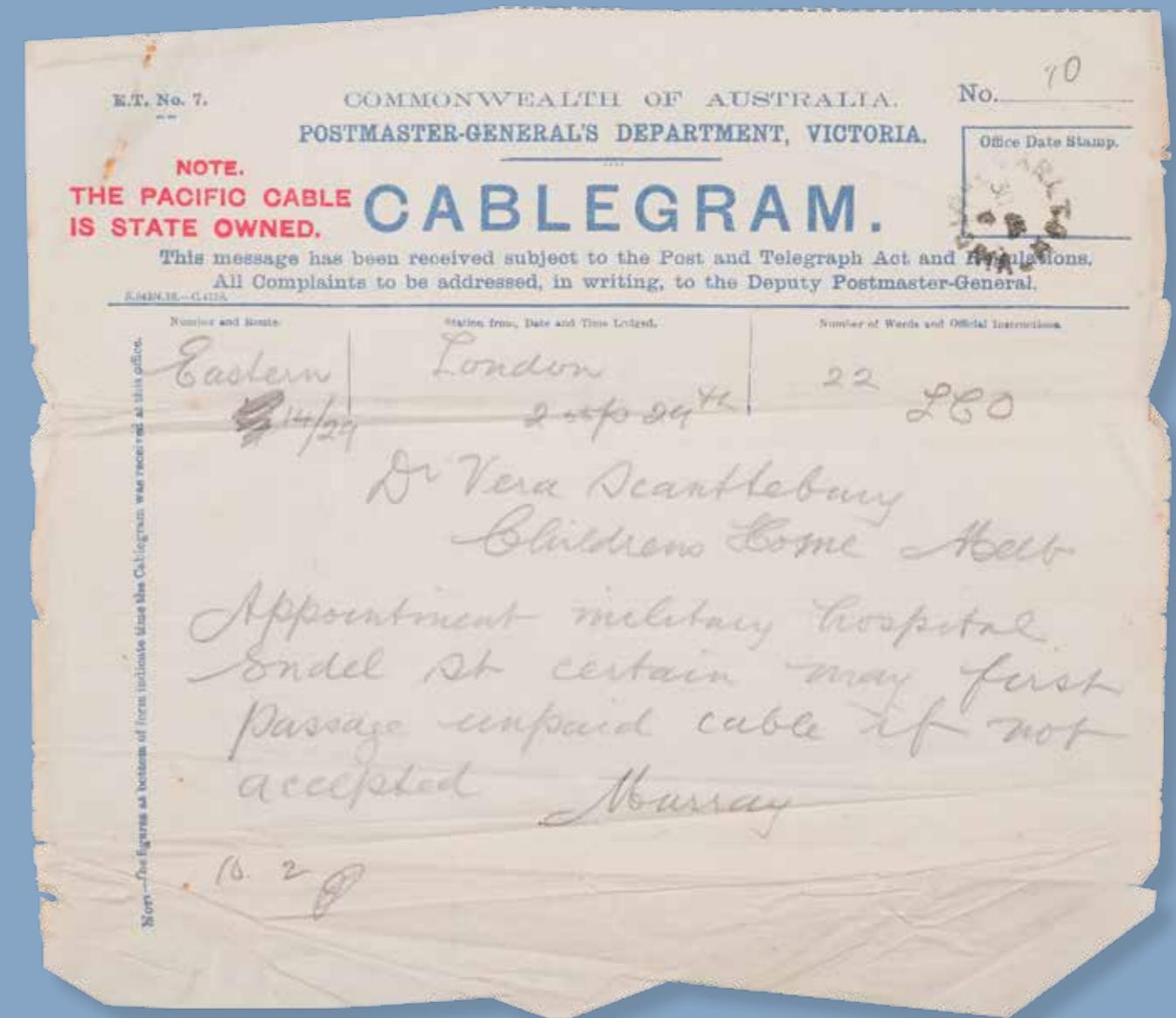
to go to the front in Belgium were Dr Laura Forster, who joined the British Field Hospital for Belgium, arriving in Ostend in early September 1914, and Dr Isobel Ormiston, who joined the Wounded Allies Relief Committee and started work in Ostend's hydro-spa hotel, Le Kursaal, later that month.<sup>5</sup> Australian women also joined organisations initiated by women doctors, the two largest being the Women's Hospital Corps (WHC) and the Scottish Women's Hospitals (SWH), which had a base hospital at Royaumont and mobile field hospitals.<sup>6</sup> Dr Rachel Champion and Dr Vera Scantlebury were two of the five Australian women surgeons at the WHC's 560-bed Endell Street Military Hospital, and Dr Mary De Garis took over command of the SWH's field unit at Ostrovo in Serbia when another Australian, Dr Agnes Bennett, succumbed to malaria.<sup>7</sup>

Melbourne's Dr Helen Sexton took yet another path: setting up her own military hospital, at Auteuil in July 1916. Sexton embodied the determination of the first women doctors to access medical education and practice in Melbourne.<sup>8</sup> In the 1880s the doors of the University of Melbourne's medical school were closed to women, but Helen Sexton and Lilian Alexander overcame this obstacle, pressuring the university to admit women in 1887. Sexton became the school's third female graduate, in 1892, and developed a considerable reputation for her surgical skills when, from 1897 to 1910, she headed the operating theatre at Melbourne's Queen Victoria Hospital, which she had helped found in 1896.<sup>9</sup> Travelling in England in August 1914, she immediately offered her surgical expertise, at her own expense, to the Royal Army Medical Corps (RAMC), but was rebuffed. Undaunted, she went home to gather the helpers, funds and equipment needed to open a hospital for wounded soldiers, 'les petits blessés', in France.

By January 1915 Sexton was raising funds in Melbourne with the help of four friends; all five, plus two nurses from Sydney's Prince Alfred Hospital, returned to France to open the Hôpital Australien de Paris. This was established with French military status as a branch of Val de Grâce military hospital, in Auteuil in the 16th district of Paris, near the Bois de Boulogne.<sup>10</sup> Set up in a spacious villa, previously a girls' school, it opened in July 1915 with 21 beds; Helen was appointed *médecin majeur* by the French military.<sup>11</sup> It operated until early 1916, when Sexton was invited to work as an assistant surgeon at Val de Grâce, which specialised in facial reconstruction surgery. After the war, the French government awarded her the gold Médaille de la Reconnaissance Française, an honour reserved for those who, without legal or military obligation, came to the aid of the injured or acted with exceptional dedication in the presence of the enemy.<sup>12</sup>

In 1914 Sir William Osler famously said: 'In war, the microbe kills more than the bullet'.<sup>13</sup> By early 1916, Isobel Ormiston had completed her next assignment: to establish a typhoid hospital in Podgorica in Montenegro. Getting there from Belgium proved difficult as the Austrians had blockaded Montenegro's port of Bar. She reached Salonika after a 600 kilometre, seven-day mountain trip, including three days on horseback and mules.<sup>14</sup>

Cat. 216 Dr Flora Murray (1869–1923), **Cablegram regarding appointment of Dr Vera Scantlebury (1889–1946) to Endell Street Military Hospital in London**, 1916, print and pencil on paper, 19.0 × 21.0 cm. 2013.0058, gift of Catherine James Bassett, daughter of Vera Scantlebury Brown, Vera Scantlebury Brown Collection, University of Melbourne Archives.



A typhus outbreak in Macedonia was the reason Sydney pathologist Dr Elsie Dalyell joined Lady Cornelia Wimborne's Serbian Relief Fund Mission to Uskub (Skopje). A brilliant student, Dalyell was the first Australian woman to win the prestigious Beit Fellowship for Medical Research and in 1914 was studying at the Lister Institute in London. Her offer to enlist having been declined by the War Office, Dalyell travelled with the mission—one of five sent from England to battle the epidemic—arriving in February 1915.<sup>15</sup>

Dalyell's unit found over 2000 patients in overcrowded and unsanitary conditions 'appalling to a degree which cannot be imagined'.<sup>16</sup> The unit took over a sixth-century Turkish hilltop fort—picturesque but filthy. In April, a Bulgarian incursion to the south-east meant the arrival of wounded Serbian officers and soldiers after a journey of 133 kilometres. With an English colleague, Dalyell worked 'very much understaffed and carried on under great difficulties' until July, by which time they had contained the epidemic.

When she returned to England, Dalyell's pathology skills were put to work at the Addington Park Military Hospital in Croydon, before she joined the SWH, arriving in France at its hospital in l'Abbaye de Royaumont on 2 May 1916.

In London, Dr Rachel Champion was an assistant surgeon at the Endell Street Military Hospital. With hundreds of beds and an all-female medical staff of 180, commanded by Dr Louisa Garrett Anderson and Dr Flora Murray, this huge hospital had been set up in the old five-storey St Giles Workhouse. Between 1915 and 1919 it treated over 26 000 patients. Five Australian doctors—Eleanor Bourne, Elizabeth Hamilton-Brown and Emma Buckley from Sydney, plus Rachel Champion and Vera Scantlebury who had graduated together from the University of Melbourne in April 1914—served there, all with the ex officio rank of lieutenant.<sup>17</sup> Although attached to the RAMC, the women were denied the privileges and insignia of rank and were never considered to be officially enlisted.

The surgical work was complex and exhausting, and the aftercare heavy and frustrating. Scantlebury wrote: 'I feel 102 tonight—oh such sick cases—I operated on four beggars today—All the time I wish I knew more—had to tie a femoral artery',<sup>18</sup> and later: 'a hard day. I am not at all keen on military surgery but I suppose I shall get used to it and do it better than at present but I think it is horrible'.<sup>19</sup>

A new problem had to be dealt with when influenza cases started to reach the hospital in July 1918: Scantlebury described it as 'the most peculiar disease, not typhoid, not influenza, not meningitis but symptoms of each some more marked in some cases than others!'<sup>20</sup> Melbourne graduate and Vera's friend Dr Hilda Bull Esson arrived in London from New York in February 1918 and enlisted as a medical officer with the Women's Auxiliary Army Corps. She joined a travelling medical board, examining women recruits until the birth of her son, and continued to work for the WAAC until the war's end.<sup>21</sup>

Cat. 30 **First women students admitted to Melbourne Medical School, 1887**, photograph, 28.0 × 33.0 cm. MHM02037, Medical History Museum, University of Melbourne.  
Standing, from left to right (with year of graduation): Helen Sexton (1892–93), Lilian Alexander (1893–94), Annie O'Hara (1894–95); seated: Clara Stone (1891–92), Margaret Whyte (1891–92), Grace Vale (1894–95), Elizabeth O'Hara (1892–93).



*Helen M. Sexton*

Dr Flora Murray wrote that the women doctors who served in World War I 'knew instinctively that the time had come when great and novel demands would be made upon them and that a hitherto unlooked for occasion for service was at their feet'.<sup>22</sup> But those great and novel demands were met at a cost. In mid-1918, with no end to the war in sight, Vera Scantlebury wrote: 'It is so difficult to remain keyed up with youthful buoyancy and excitement over work when middle age is slowly but steadily spreading its [...] cramping influence over one! We lamented our lost youth several times today'. She was 28 years old.

The professional gains for women doctors returning from war service were few, but the contributions of these women in their post-war careers, especially to the development of women's and children's health services, suggests that they took full benefit from all they had experienced and all they had gained and lost.

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Cat. 215 Dr Flora Murray (1869-1923), **Letter offering Dr Vera Scantlebury (1889-1946) appointment as assistant surgeon to the Endell Street Military Hospital in London**, 24 October 1916, typescript on paper, 34.3 x 21.6 cm. 2013.0058, gift of Catherine James Bassett, daughter of Vera Scantlebury Brown, Vera Scantlebury Brown Collection, University of Melbourne Archives.

From The Doctor in Charge,  
Military Hospital,  
Endell Street.  
London. W.C.

To Dr. Vera Scantlebury,  
Marathon,  
Cheltenham,  
Victoria,  
Australia.

October 24th.1916.

Dear Madam,

I have received your name from Dr. Rachael Champion, who is one of the Officers at this Hospital, and who suggests that you might be willing to consider coming to England to take up military work.

There will be vacancies for Assistant Surgeons here on May 1st.1917, and I have pleasure in laying the following facts about the Hospital before you for consideration.

The Military Hospital, Endell Street, has 573 beds the major part of which are devoted to surgical work. As well as receiving convoys from abroad we receive cases from the barracks and depots in this neighbourhood, so that the work is both traumatic and general. This is the only military hospital staffed by women; the War Office appointed Dr. Garrett Anderson and myself as Officers in Charge for as long as the Hospital may be required, and leaves it to us to find our own medical Staff and propose them for appointment to the War Office.

It has been arranged for the doctors joining our Staff to sign a six monthly agreement with Dr. Garrett Anderson and myself. This agreement can be renewed at the end of six months. The agreement is between us and our Staff, and the War Office makes the appointment on our recommendation.

The Staff are paid by the War Office. The remuneration would be the same as that of a lieutenant in the R.A.M.C. Lieutenants receive 14/- a day and the following allowances, light, fuel, servant, ration and lodging, amounting in all to approximately 20/- a day. They do not live in the Hospital but make their own arrangements outside. There are 8 Assistant Surgeons who have each 50 to 60 beds. The surgical work is supervised by Dr. Garrett Anderson who is our Chief Surgeon.



## DR MARY DE GARIS: SERVICE UNDER FIRE

In 1914 the idea of women doctors in battlefield hospitals was a radical notion that challenged Imperial and gender assumptions in Britain and Australia. But as soon as war was declared, Dr Mary De Garis, of the remote New South Wales town of Tibooburra, resolved to enlist in the Australian Army Medical Corps. This expressed her belief that women, being equal to men, should do their patriotic duty. Her feminism had already served her well—in 1900 she was the 31st woman to enrol in medicine at the University of Melbourne, graduating MB in 1904, BS in 1905.<sup>1</sup> Like most Australians in 1914, she was ‘an independent Australian-Briton’, for whom patriotism meant loyalty to both nations.<sup>2</sup>

Medicine was essential to the war—the medical profession educated the military about public health, helped control and treat diseases, and tended to the wounded and the dead.<sup>3</sup> For De Garis, it was logical that women doctors should use their skills to save the Empire’s servicemen. She foresaw the devastation of the war:

I think if the war continues, the need for doctors will be so great. That women will have a chance of being accepted and given a military status for it: and I much prefer that idea to that of being merely a voluntary helper: also I want to be here for my man when he comes back.<sup>4</sup>

Ten days before Britain’s declaration of war in Europe, Mary De Garis had become engaged to Colin Thomson, farmer and captain of the Tibooburra cricket team.<sup>5</sup> When Colin enlisted in early 1915 and was shipped to Egypt, De Garis also applied, but was refused enlistment.<sup>6</sup> Colin courageously survived Gallipoli and was deployed to France. Anxiously Mary sailed to London in June 1916 to be on hand in case he was wounded and repatriated to England. Working at the Manor Hospital, London, she learnt in mid-September of his death at Pozières on 4 August.<sup>7</sup> Thus began her period of ‘service under fire’.

Numbed by Colin’s death, De Garis resolved to join the Scottish Women’s Hospitals (SWH)—a feminist organisation founded by Dr Elsie Inglis. Its aim was to support the medical effort by supplying the British Army with female-staffed, mobile medical units. The enterprise would also dramatically increase opportunities for women. The army, however, declined the SWH’s offer, telling Dr Inglis to ‘go home and sit still’.<sup>8</sup> But the Allied armies of Russia, France, Belgium and Serbia accepted their services.<sup>9</sup> The SWH organised 14 mobile hospitals during the war: Calais and Royaumont in France; Kraguievatz, Valjevo, Mladanovatz, Lazarovatz, Ostrovo, Vranja and Sallanches in Serbia; Troyes, Salonika and

**Hospital camp, America Unit, Scottish Women’s Hospitals for Foreign Service, Ostrovo, Serbia, 1917.**  
PA Coll 6972012-05, Alexander Turnbull Library, Wellington.

Corsica in Greece; and various places in Russia. Some were placed in existing premises, such as in an abbey at Royaumont, while others were set up in tents.<sup>10</sup> The SWH successfully raised funds and recruited women from across the Empire; their efforts were remarkable. Dr Mary De Garis was a surgeon in the 4th America Unit of the SWH in Ostrovo in northern Macedonia, under the Serbian Army on the Balkan (Eastern) Front, from February 1917 to October 1918. The unit was a 200-bed tent hospital, treating wounded from Allied armies and some injured enemy soldiers—Germans, Austrians and Bulgarians. The camp of around 50 women, aged between 25 and 45 years, was surrounded by camps of men: ‘Serbs, French, Russians and Italians ... Greek soldiers, Macedonian civilians (who might be Roumanian or Turk) and a few black French colonels’.<sup>11</sup>

The doctors performed surgery, while other women nursed, drove ambulances, maintained motor vehicles, managed sanitation and worked as cooks and orderlies. The chief medical officer (CMO) reported to the Serbian Army command as well as to the SWH headquarters in Edinburgh. Discipline and curfews were enforced, uniforms were worn and the mail was censored. The level of internal discipline varied according to the CMO. Most of the staff were paid modestly and women from all classes were recruited and worked at all levels. De Garis received a salary of £200 a year, far less than she could earn in Australia. She was initially second-in-charge to another Australian, Dr Agnes Bennett.

The camp at Ostrovo was some kilometres away from the battlefield, unlike the dressing station where staff could immediately tend to the wounded, load the patients into SWH ambulances (Ford motor cars) and transport them back to the Ostrovo hospital. In her first month, De Garis had a ‘birth by fire’ when she was sent up to the Dobraveni dressing station—a windswept and treeless place, subject to constant air raids—to give Australian Dr Lilian Cooper a much-needed break.<sup>12</sup>

Ostrovo also tested De Garis’s physical resilience as she battled flies, wasps and mosquitoes and performed difficult surgery in all weather, including snow. Personally she battled serious illnesses: typhoid, dysentery and malaria. Like so many women at that time, she deeply mourned her fiancé, but dedicated herself to her hospital work.<sup>13</sup>

The constant and varied operations required at Ostrovo improved the surgeons’ skills. An estimated 1084 operations were performed between September 1916 and October 1919, including 80 amputations (mostly of fingers, toes and parts of legs), 12 re-amputations, 38 bomb wounds, 18 bullet wounds, 26 compound fractures, 90 hernias, 80 removals of foreign bodies, 30 shrapnel wounds, 24 curettage of old wounds and 390 repairing and scraping of old wounds. Over this period, 103 patients died.<sup>14</sup>

In July 1917 the unit experienced a setback when a nurse, Sister Caton, became seriously ill with appendicitis. De Garis operated but it was too late; Caton suffered a ‘cerebral embolism’ after the operation and De Garis could not save her. Agnes Bennett described the appendix as ‘gangrenous’. The camp came to a standstill for the funeral, and burying

**Dr Mary Clementina De Garis (1881–1963)**, 1915. Mary De Garis Papers, collection of Kathy Hancock.



their compatriot took a heavy emotional toll on De Garis and her colleagues.<sup>15</sup> Soon after, writer Stella ‘Miles’ Franklin arrived to work as an orderly and cook; she became firm friends with De Garis and recorded many entertaining observations about camp life.<sup>16</sup>

In September 1917 Agnes Bennett was forced to resign due to severe malaria, and De Garis was appointed as her successor, becoming responsible for the welfare of some 250 people. She was particular about sanitation as the camp was unsewered. Malaria was endemic and another constant threat; staff had to wear gaiters, cover their skin completely and use mosquito nets. De Garis found that injecting quinine at the first sign of a high temperature was the most effective treatment, although the staff dreaded these intramuscular injections.

De Garis took her administrative responsibilities seriously, which ranged from medical and morale problems to vegetable cultivation.<sup>17</sup> She worked tirelessly, with remarkable confidence and energy. For instance, at around 3 am one February night in 1918, after heavy snowfalls and rain, a hurricane almost demolished the camp. Precious medical supplies were scattered and broken, large tents collapsed and patients had to be evacuated by train in the pouring rain, by staff still wearing their pyjamas. With De Garis in charge, the staff had most of the tents re-erected and repaired and the hospital almost restored within three days.<sup>18</sup>

In another episode, De Garis and nurses Angell and Saunders were operating in a tent at a dressing station near the front. The smoke was thick; German bombs were dropping around them. Mary and the nurses worked on steadily to extract a bullet from the back of a French soldier’s palate—a delicate procedure. They carried on calmly and methodically, like a well-oiled machine, until the operation was successfully completed. Agnes Bennett wrote:

There were fifteen aeroplanes aiming at them, and the camp next to them, which suffered very badly. The girls’ presence of mind and courage during air raids and bombardments have been a source of amazement and admiration to me ... Only those who know what it is to have bombs falling all round them can realise what an amount of presence of mind and courage such a thing takes.<sup>19</sup>

Miles Franklin, in her inimitable way, also recounted:

A story of the sang froid of Dr De Garis was current. Once, in the earlier days of the Unit, while a serious operation was proceeding in the little operating tent of the advanced dressing station, the bombs began to rain. The men assistants promptly disappeared to their funk holes, but Doctor continued her operation, occasionally remarking very politely to the Sister who stayed with her, that she was sorry, she supposed Sister would like to have a look at what was going on outside, but the patient had to be attended to or he would bleed to death.<sup>20</sup>

**Scottish Women’s Hospitals, America Unit, Ostrovo, c. 1917–18, staff photograph:** Mary De Garis seated in front row, second from right, next to Agnes Bennett; Miles Franklin on far left end. TD1734, Glasgow City Archives.



In June 1918, De Garis's mother, while staying at Guernsey, died unexpectedly.<sup>21</sup> As was the case for many bereaved in the Great War, there was little comfort for Mary De Garis as she was unable to attend the funeral.

As the end of the war approached, De Garis resigned on 30 September 1918 to make the long journey home via Rome. Here she contracted Spanish influenza and was discovered by two American doctors, who saved her life. The SWH sent a nurse to accompany her back to London after her six weeks' recuperation.<sup>22</sup> Finally arriving in Melbourne in February 1919, Mary De Garis had completed her 'service under fire', for which she was decorated by the Serbian and British governments, but was not recognised in Australia.<sup>23</sup>

### Dr Ruth Lee

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- 17 MC De Garis, letter to Mrs Russell, various correspondence, 1917-18, Scottish Women's Hospital Archive.
- 18 MC De Garis, letter to Miss Kemp, 26 February 1918, cited in McLaren, *The Scottish Women's Hospitals*, pp. 265-9.
- 19 A Bennett, cited in McLaren, *The Scottish Women's Hospitals*, p. 263.
- 20 Franklin, '*Ne mari nishta*', p. 54.
- 21 EC De Garis, letter to MC De Garis, 12 June 1918, Mary De Garis papers.
- 22 MC De Garis, diary excerpts, 5 and 10 October 1918, Mary De Garis papers.
- 23 R Lee, *Woman war doctor: The life of Mary De Garis*, Melbourne: Australian Scholarly Publishing, 2014.

**Mary De Garis with Serbian Colonel, Ostrovo, c. 1917-18.** TD1734, Glasgow City Archives.

Mary C De Garis, **Notebooks from clinical lectures for surgery and medicine**, 1911 (detail), ink on paper and cardboard, three notebooks, each 16.6×10.8×0.5 cm. MHM02029, Medical History Museum, University of Melbourne.

Ch. Laryngitis:-  
Paralysis of larynx:-  
 No. on roll. NAME. Feel for & identify cricoid cartilage. No. in Street. Room.

Papilloma of larynx  
Epithelioma larynx  
Operations upon the  
 1. Subhyoid Pharynx  
 foreign bodies access to upper  
 Raco trans. neck. Her

2. Transhyoid Pharynx  
 Hyoid bone = div.  
 Her neck across fr. a  
 hyoid cartil.  
 Prelim. tracheotomy =

3. Thyrotomy  
 foreign bo  
 larynx. &  
 Prelim. tracheot.  
 Incise in median  
 cricoid  
 Sever cricothyroid  
 body cut across

Laryngectomy:-  
 for malign disease

Laryngotomy:-  
 retract sternohyoid-sternothyroid  
 sup. hyoid veins need care  
 before trachea  
 than as above

bet. sternohyoid  
 cut books  
 on sternum  
 beca  
 sharp hook in  
 blood  
 it of scalp &  
 a from below  
 (gs)  
 my  
 ed further downward  
 gets breathe  
 (sternohyoid fascia)  
 cont. vein }  
 fascia





## CLUNES MATHISON: DESTINY DENIED

For Australia, a new nation with a relatively small population, the death of 60 000 soldiers in World War I was catastrophic. It is hardly surprising, then, that Australians contemplating the consequences of the conflict have tended to focus primarily on the numbing number of losses.

That there must have been extraordinary individuals among them has been implicitly understood, but these special Australians are little known today.

A striking example of Australia's lost generation of brilliant talent was Clunes Mathison. An internationally acclaimed medical scientist, he was the Howard Florey or Macfarlane Burnet we missed out on, because he died at Gallipoli, aged 31, while serving as a battalion doctor.

Clunes was born at Stanley, near Beechworth, Victoria, in 1883. His parents, both widely admired schoolteachers, provided a loving and intellectually rich home life for Clunes, but his upbringing was scarred by sadness. His mother gave birth to six children, but Clunes was the only one to reach his tenth birthday; as well, his father died painfully at home when Clunes was 12.

The choice of medicine as his university course was not a straightforward decision for Clunes. A genuine all-rounder academically, he had wide-ranging interests across the humanities as well as in the sciences. But he gravitated to medicine. This decision was surely influenced by the experience of witnessing the distressing deaths from disease that had devastated his family.

His examination results at the University of Melbourne, and previously at Caulfield Grammar School, were studded with honours, exhibitions and scholarships. 'Mathie' (as he was widely known) had an alert, inquiring, energetic mind, which flourished at university. He was a diligent student who liked learning, and welcomed problems that challenged and stimulated him.

Mathison matured into an amiable, engaging and popular identity. He was prominent in the activities of the Medical Students' Society. Moreover, he represented the university in intervarsity football and in District cricket, where he played against Test stars such as Warwick Armstrong and Frank Laver; he also became a delegate to the Victorian Cricket Association.

Cat. 41 **Dr Gordon Clunes McKay Mathison (1883–1915)**, 1914, photograph, 19.7×15.5 cm. MHM00321, gift of Department of Physiology, University of Melbourne, 1968, Medical History Museum, University of Melbourne.

A friend suggested in 1908 that Mathison should apply for a Rhodes Scholarship. Rather than further study, however, what he wanted to do was 'hard and active work' in research,<sup>1</sup> and later that year he travelled overseas to pursue it. Essentially, he wanted to make scientific discoveries that would help sick people get better.

Success came quickly. He was awarded a prestigious scholarship to work with Professor EH Starling, an eminent British expert. Starling had been told that Mathison was the best student to have graduated from Melbourne's medical faculty. As Starling confirmed, Mathison 'not only maintained this reputation but added to it', producing 'a mass of original work of the highest importance', which was published in 'a rapid succession of masterly papers'.<sup>2</sup> It was not just the quality of his research that was distinctive, but the way he went about it. According to Starling, Mathison was 'keenly interested in all kinds of knowledge', and displayed 'untiring energy' and 'unfailing good spirits'.<sup>3</sup>

Professor WA Osborne also esteemed Mathison. Each topic Mathie 'took up he knew inside out', Osborne wrote. 'He seemed to know where every investigator resided, what his facilities were, what his capacity was, and what he was doing at that particular time. And this not true only of physiology and allied sciences, but of pathology, medicine and surgery.'<sup>4</sup>

Charles Martin, a revered physiologist and pathologist, was director of the renowned Lister Institute in London. He was another Mathison admirer. 'No man I have ever known possesses the genius for research so highly as Mathison', Martin declared. 'He always seems to know by instinct the essential difficulties of a problem and how to tackle them.'<sup>5</sup>

Mathison's most notable research concerned asphyxia and the consequences of oxygen deficiency. It led to important conclusions about acidity in blood (including increased knowledge about the effects of fluctuations in lactic acid), which represented a substantial contribution to medical and biological science. He later extended his research to encompass the effect of altitude, combining work with memorable travel to the spectacular Monte Rosa peaks and the Sugar Loaf at Abergavenny. This led to what were regarded as significant publications that increased knowledge of respiration and blood flow, and also the ramifications of diet, exercise and altitude.

Mathison was awarded the degrees of Doctor of Medicine and Doctor of Science. He also received one of the first Beit Fellowships for Medical Research, an outstanding accomplishment that underlined his growing international reputation.

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. As his friend 'Barney' Allen put it, Mathie's 'cheery, chubby figure was welcome everywhere; he knew every Professor and every policeman in London, and was equally at home hobnobbing with either'.<sup>6</sup>

Cat. 43 [Algernon] Darge, 'The Soldier's Photographers' (Melbourne), **Dr Gordon Clunes McKay Mathison (1883–1915)**, 1914, photograph, 22.6 × 11.8 cm. MHM00322, gift of Department of Physiology, University of Melbourne, 1968, Medical History Museum, University of Melbourne.



Mathison returned home in 1913 to take up a senior research position at Melbourne Hospital. He advocated what he called ‘true bedside research’.<sup>7</sup> Mathie urged every doctor—and each student and hospital as well—to accept that their role was not only to heal a particular patient, but also to acquire knowledge of that patient’s illness in order to reduce its incidence.

When the Great War began in August 1914, it was clear that the new Australian force formed in response to the emergency would need doctors. Mathison was more than willing to become one of them. For years he had been preparing for such an eventuality as a part-time field ambulance lieutenant, and he became Captain Mathison of the AIF’s 2nd Field Ambulance. He left Australia in October.

In April 1915, with final preparations under way for the landing at Gallipoli, Mathison was transferred to the 5th Battalion. He would now be landing with his new unit as its doctor. Remarkably, another momentous development affecting Mathison happened to occur concurrently back in Melbourne—he was appointed the inaugural director of the newly established Walter and Eliza Hall Institute of Medical Research, a position tailor-made for his unique talents.

Mathison landed at Gallipoli with his battalion on 25 April 1915, and performed magnificently in the chaos of the first few days. He was cheerful and tireless, capable and irrepressible. The 5th Battalion’s new doctor was not destined to be with the unit for long, but while he was he made a profound impression.

Early in May the 2nd AIF Brigade, including the 5th Battalion, was transferred south to Helles, where it was ordered—at preposterously short notice—to charge towards Krithia and beyond. In effect, the brigade was directed on 8 May to make an immediate advance along an exposed spur for 5 kilometres against the same Turkish fire that had halted a series of similar attacks before any of them had progressed even one-sixth of that distance.

Undeterred, the Victorians dashed forwards against a hail of Turkish bullets as intense as any rifle and machine-gun fire that the AIF encountered in the whole war. Onlookers marvelled at the extraordinary bravery of the attackers in this impromptu rush. Some observers likened it to the legendary Charge of the Light Brigade.

Inevitably, though, casualties were devastating. The medical personnel were flat out. Again, Mathison’s assiduous and courageous contribution in the forward area during the ghastly aftermath for the AIF was long remembered. He made it known that ‘wherever I am wanted, just tell me, and I will try to go’.<sup>8</sup>

Charles Bean, the AIF historian, observed Mathison’s invaluable zeal first-hand. He concluded that if ‘one man did more than any other to catch up with the hopeless press of work that night’, it was Mathison.<sup>9</sup>

Later on 9 May, after (as Bean wrote) the ‘worst of the stress was over’,<sup>10</sup> Mathison returned to the aid post he had established in a cavity along the bank of a creek bed. He was getting dressed during the afternoon, putting his boots on—probably after a

well-earned rest—when one of the Turkish bullets fired from afar that were falling to earth along the creek happened to strike him on the head. Mathison lost consciousness immediately. He was carried to a hospital ship, but his wound proved fatal, and he died in hospital on 18 May, aged 31. So a unique genius precious to Australia was thrown away in an utterly senseless operation.

The tributes to Mathison contained extraordinary accolades. Professor Starling wrote after Mathison’s death that ‘for the science of medicine throughout the world, the loss is irreparable’.<sup>11</sup> The (London) *Times history of the war* lamented Mathison’s death as the loss of ‘a life which had been judged infinitely precious’.<sup>12</sup> Barney Allen’s tribute concentrated on Mathie’s personal qualities:

Of Dr Mathison as a scientist, let others speak. I speak of him as a friend, and as a friend he was wonderful ... He never flagged: the variety of his interests was remarkable. I have been with him on all sorts of occasions—smoking and yarning, cricketing, camping, canoeing, fishing, ski-running—and it was always the same: whether it was a question of scientific knowledge, or of academic diplomacy, or the value of a book or a picture or a piece of music, or the fastening of a ski-binding, it was always ‘Ask Mathie’.<sup>13</sup>

Allen organised a permanent tribute as well. He collected donations from friends and admirers of Mathie to fund a triennial lecture or lectures on medical science. The lecturers eulogised Mathison, appropriately. Professor Osborne described him in the inaugural lecture as ‘a rare genius; a gift of the gods’.<sup>14</sup>

Charles Kellaway, who became director of the Walter and Eliza Hall Institute—the position that had been destined for Mathie—delivered the memorial lecture in 1930. Mathison ‘was a personality of great vitality and singular charm’ with ‘a genius for friendship’, Kellaway stated. Among his ‘great gifts’ as a medical scientist, he was ‘full of ideas and his enthusiasm was contagious’.<sup>15</sup>

A later lecturer, Reginald Webster, who had worked alongside Mathie, captured his essence: ‘a man of brilliant attainments, radiant promise and endearing personality’.<sup>16</sup> In 1953, when it was Macfarlane Burnet’s turn to be the lecturer, he depicted Mathison as an Australian equivalent of Rupert Brooke. Experts are still delivering Mathison memorial lectures a century after his death.

But these worthy lectures are not well known. And the remarkable medical scientist they commemorate is hardly known today at all. Such an extraordinary Australian as Clunes Mathison should be much more familiar than he is.

#### Dr Ross McMullin

- 1 C Mathison, letter to J Latham, 16 February 1908, Latham papers, National Library of Australia.
- 2 EHS [EH Starling], 'Obituary: Gordon Clunes McKay Mathison, M.D., B.S.Melb., D.Sc.Lond.', *British Medical Journal*, 19 June 1915, p. 1070.
- 3 *Ibid.*
- 4 WA Osborne, 'The late Captain G.C. Mathison', *The Speculum: The Journal of the Melbourne Medical Students' Society*, no. 93, July 1915, p. 143.
- 5 *Medical Journal of Australia*, 12 June 1915, p. 567.
- 6 *Ibid.*
- 7 *University Review: The Journal of the Melbourne University Association*, August 1914.
- 8 CEW Bean, 'The Australian Army: The stretcher bearers ...', *The Mercury* [Hobart], 22 July 1915, p. 6.
- 9 *Ibid.*
- 10 *Ibid.*
- 11 EHS, 'Obituary', p. 1070.
- 12 *The Times history of the war*, vol. 6, London: The Times, 1916, p. 150.
- 13 *Medical Journal of Australia*, 12 June 1915, p. 567.
- 14 *Medical Journal of Australia*, 8 March 1924, p. 239.
- 15 *Medical Journal of Australia*, 4 July 1931, p. 1.
- 16 R McMullin, *Farewell, dear people: Biographies of Australia's lost generation*, Melbourne: Scribe, 2012, p. 319.

Cat. 184 'The service of the medical profession', from *The Speculum: The Journal of the Melbourne Medical Students' Society*, June 1917 (detail, colour altered). Special Collections, Baillieu Library, University of Melbourne.

# DISTRESS, DISEASE *and* DISFIGUREMENT

THE SPECULUM.

June, 1917.

## The Service of the Medical Profession.

Figures sometimes speak more eloquently than words, and the following table gives a record of the war service of the Victorian branch of the medical profession:—

Still on active service . . . . .	219
Returned from the front . . . . .	82
Killed on service . . . . .	19
	<hr style="width: 10%; margin: 0 auto;"/>
Total . . . . .	320

These 320 doctors include 79 graduates, who volunteered immediately on completing their courses, whilst 241 were drawn from the general body of medical practitioners in the State. These figures mean that 40 per cent. of the medical men in the State have offered and been accepted for active service. The men whose services have not been required for active service have willingly given their services in the A.A.M.C. Reserve, and their splendid services at the Base hospitals should be recognised. These figures speak for themselves.



*Mosquito farms etc.*

## VENEREAL INFECTIONS: FROM MORALISING TO MEDICAL CARE

During World War I, millions of the soldiers and women of all combatant nations became infected with venereal diseases (VD) during an unprecedented outbreak of sexual promiscuity. Those affected included at least 60 000 Australian soldiers—about 15 per cent of the entire Australian army—who between 1914 and 1920 were treated in army hospitals for venereal infections in Egypt, the United Kingdom, France and Australia.

The most prevalent sexually transmitted infections at the time were the bacterial diseases gonorrhoea, syphilis and chancroid; most Australians who caught them were treated by doctors of the Australian Army Medical Corps (AAMC). This occurred continuously from the arrival of the first contingent of the Australian Imperial Force (AIF) in Egypt in late 1914, until the last of the wartime army VD hospitals stopped admitting patients, in 1920. On average, on any day between January 1915 and the end of the war, at least 1000 Australians were being treated in hospital for VD—the equivalent of permanently withdrawing a full-strength infantry battalion from the fighting. But the situation could have been far worse, had a change of AIF policy for controlling VD not occurred from 1916.

The infections of soldiers who served overseas occurred in two phases. The first was in Egypt, between December 1914 and mid-1916, when about 10 000 were treated. The second, much larger, phase occurred in France and the United Kingdom, after the AIF had moved from Egypt to Europe. Between mid-1916 and November 1919, when the army's largest VD hospital, at Bulford in England, closed, about 40 000 soldiers were treated there and at hospitals in France. Separately, about 10 000 soldiers were treated for VD in Australia, either before they left for overseas service, after they returned, or as members of the militia serving only in Australia.

There were various reasons why Australian soldiers caught VD. Significantly, no simple, reliable methods existed for blocking transmissions. The only sure way of avoiding infection was to abstain from sexual intercourse. Chemical prophylactics were available, but were only effective if both sexual partners elaborately washed places of likely skin-to-skin contact, covered them with a thick film of Calomel mercury ointment and Nargol silver jelly immediately before sex, then repeated the entire procedure immediately afterwards. Vulcanised rubber condoms were available, but broke easily; very effective, thin latex condoms were not available until after the war. Evidently, many Australian soldiers could not protect themselves correctly, or did not bother to try.

John Dunbar, *Mosquito farms etc.*, 1917, pencil on paper, 26.6 × 18.2 cm. ART19520.007, Australian War Memorial. AIF soldiers on leave liked to think they attracted swarms of women.

If infection occurred, treatment had to begin without delay, using toxic drugs containing heavy metals, and painful methods. For gonorrhoea in men, this involved repeated urethral syringing and douching using colloidal silver and other poisons. For syphilis, repeated hypodermic injections of colloidal mercury or arsenic were given. The buboes of chancroid were destroyed by repeatedly applying mercury in various forms. Any delay in commencing these cures allowed the bacteria to multiply, and the process of killing them became very protracted, if not impossible. The first reliable and safe anti-syphilis and anti-gonorrhoea antibiotic drug, penicillin, and the first one for chancroid, erythromycin, were still far in the future.

Most Australians who enlisted were healthy young men, at or near their peak of sexual potency. In Australia, there were few sexual partners available for sexually adventurous young men, and religious taboos or legal prohibitions discouraged sex outside marriage, and masturbation. But the 320 000 soldiers of the AIF were far removed from their morally protected lives, to places overseas where numerous sexual partners were freely available. In Egypt, young Australian men and boys found themselves in a country where prostitution was openly tolerated, with many brothels in Cairo and Alexandria providing pleasures of the flesh. The first phase of VD infections in AIF soldiers was caused by sexual adventuring in those Egyptian brothels.

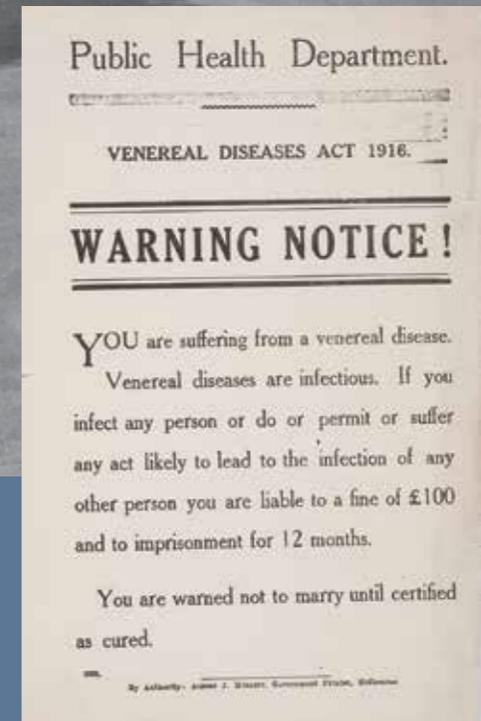
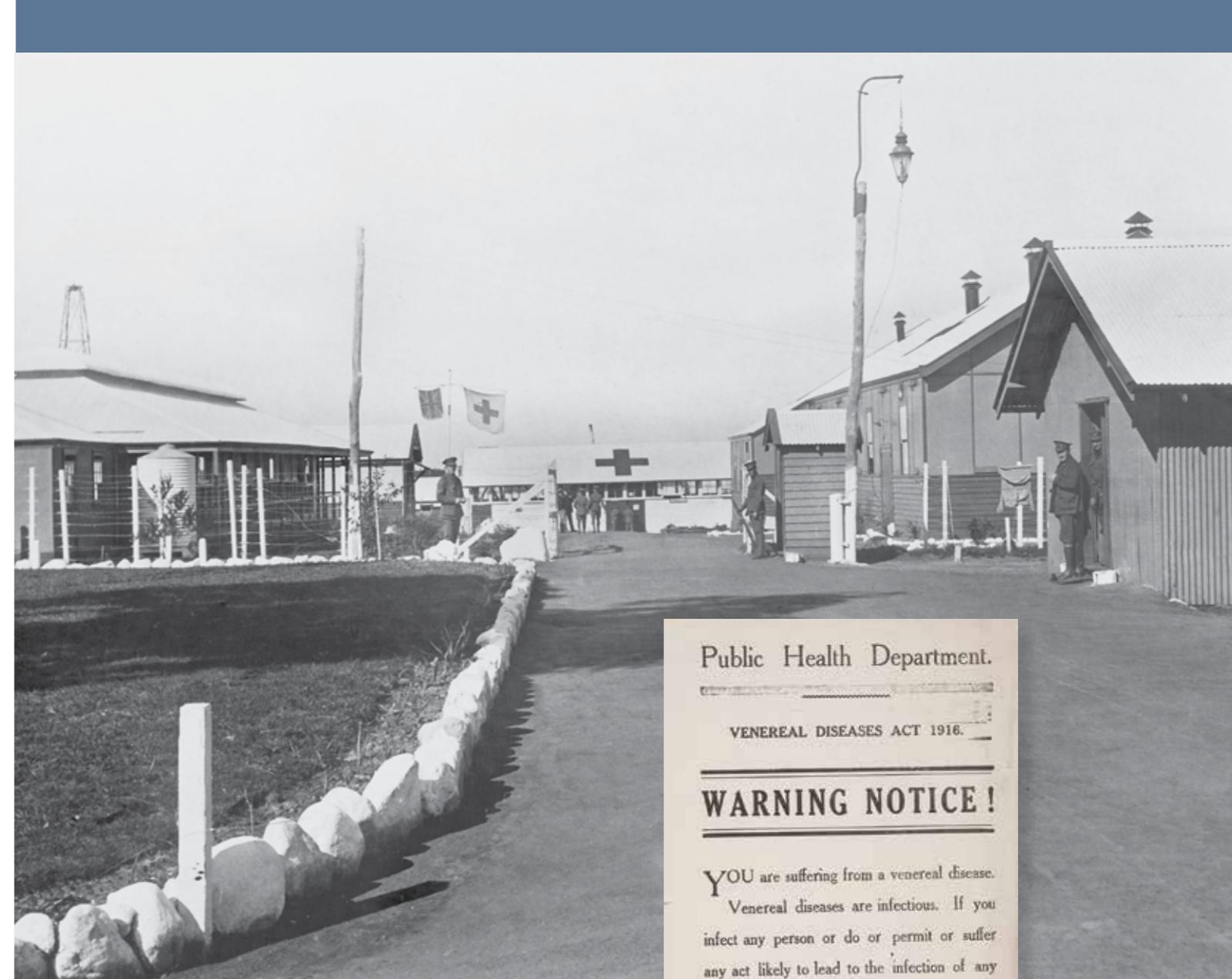
Then, after the AIF moved to the European war theatre in mid-1916, Australians discovered a growing army of prostitutes, attracted by the huge number of concupiscent soldiers. There was also a second, much larger, group of sexually active women available. These were not prostitutes, but mainly women who had lost their husband, fiancé or other sexual partner because of the war. Diggers on leave in France and the United Kingdom easily found casual sex, and cross-infection with VD happened repeatedly.

Sexual promiscuity was also enabled by fatalistic attitudes adopted by many Western Front soldiers. Living dangerously in the trenches of France and Flanders, with the ever-present possibility of sudden death, most felt it was highly unlikely they would ever again see Australia, or their loved ones. In a brutal war that had turned conventional morality upside down, a great many AIF men became carefree hedonists when on leave—heavy users of alcohol, sexual profligates, playing Russian roulette with VD.

In Egypt, powerful moral influences in the AIF had, perversely, made preventing VD infections difficult. Anzac commanders regarded with disdain soldiers who caught VD—it was immoral, unpatriotic and unsoldierly. Issuing prophylactics was not authorised, although lecturing troops about the dangers was permitted. The official policy for

**The main entrance to the army venereal disease hospital at Langwarrin, Victoria.** A03662, Australian War Memorial.

Cat. 82 Public Health Department of Victoria; printed by Albert J Mullett, Government Printer (Melbourne), **Venereal Diseases Act 1916. Warning Notice!**, c. 1917, print on paper, 22.0 × 14.0 cm. MHMA1539.8, Australian Medical Association Archive, Medical History Museum, University of Melbourne.



controlling VD was to punish those who became infected, including stopping their pay; imprisoning, isolating and shaming them; and sending victims back to Australia.

However, shortly after Australians entered the battles in Europe in mid-1916, a consideration far more powerful than morality caused that policy to change. This was the sudden weakening of AIF military strength when almost 10 000 diggers were killed at Fromelles and Pozières; similarly heavy battle casualties occurred from then on. It became obvious that the difficulties of recruiting replacements must not be worsened by leaving many troops out of action due to VD. Thus, the policy for controlling VD was changed, and the use of punishments was mainly replaced by medical methods.

In the scheme of preventive and curative medicine for VD then devised by AAMC doctors, the only part of the old methods that was retained was the health-education lectures. Prophylaxis was now adopted as AIF policy, and hundreds of thousands of kits containing Calomel and Nargol were given to men going on leave. Soldiers returning from leave, who may have been exposed to VD, were given free medical inspections, and precautionary use of Calomel and Nargol. Hundreds of thousands of inspections were made.

When an inspection revealed early signs of disease, there was free provision of 'abortive treatment'—an attempt to quickly kill VD bacteria. About 20 000 infected men received abortive treatment, of whom about 15 000 were cured. If prophylactics, early preventive treatment or abortive treatment failed, and an infection developed beyond the stage of fast treatment, the patient was admitted to hospital.

Three Australian army hospitals were opened during the war specifically to treat venereal cases. The first to open, and last to close, was at Langwarrin, south of Melbourne. This was established in March 1915 as an isolation-detention barracks in a barbed wire enclosure, to receive venereal cases sent from Egypt. By October 1915, when that practice stopped, more than 1300 men had been shipped to Langwarrin. During 1916, it was transformed into a hospital with modern facilities and, by 1920 when admissions stopped, over 7200 troops had passed through. Langwarrin was also used by the army for VD research, to find better testing methods and faster, cheaper cures and therapies; this work was often reported in *The Medical Journal of Australia*.

The second army VD hospital to open, also a detention barracks, was at Abbassia in Cairo. This was in May 1915, immediately after the Gallipoli landings when, with hospitals in Egypt overwhelmed by battle casualties, an order was given to concentrate all VD cases at Abbassia, before sending them to Langwarrin. Abbassia could accommodate up to 2000 patients, but a shortage of medical staff meant that patients had to perform their own cures. In December 1915, the 1st Australian Dermatological Hospital (1ADH) was raised in Sydney, and in January 1916 it took over at Abbassia, which was then converted into a proper VD hospital. Until mid-1916, many thousands of cases were treated at 1ADH.

Lafayette-Sarony (Melbourne), **Sir James Barrett (1862–1945)**, 1919, photograph, 20.0 × 15.0 cm. UMA/1/1836, University of Melbourne Photographs Collection, University of Melbourne Archives.



The third and largest Australian VD hospital was formed at Bulford in England, after the dermatological hospital transferred there from Cairo in September 1916. By the time 1ADH at Bulford closed in November 1919, a year after hostilities ceased, there had been about 30 000 admissions, many for soldiers infected with multiple diseases, many being repeat visits.

Numerous Australian Army doctors were involved in the AIF's struggle to prevent and cure venereal diseases. Initially, in Egypt, this was an unexpected and unwelcome duty; many doctors had strong moral convictions, and agreed with the policy of punishing patients. Later, in Europe, after the scheme of preventive and curative medicine was adopted, AAMC doctors had to put aside their moral qualms, and use those methods exclusively. Had they not done so, the AIF's military strength would have been seriously depleted.

Within the AAMC, a struggle to treat venereal diseases as medical problems, not moral ones, began in Egypt in early 1915. In Cairo, senior AAMC officers were, at best, ambivalent about using medical methods, especially prophylaxis. Such attitudes were opposed by very few, but one officer stood out. He was Major James Barrett (1862–1945), who strongly advocated preventive medicine as the only solution, although his opinion was ridiculed by his AAMC colleagues. Later, during the VD emergency in Europe, almost every idea of Barrett's was adopted. By then he had left the AAMC, and was a lieutenant colonel in the British Army Medical Corps. In 1918 he was knighted by King George V for his wartime work.

Barrett had graduated MB from the University of Melbourne in 1881 and before the war was a prominent ophthalmologist and a medical lecturer and researcher at the university. After the war he became a leader of the campaign against VD in Australia. He often said that the greatest impediment to stopping infections from spreading was reluctance to openly discuss venereal diseases and treat them as normal, preventable, contagious diseases. In the 1930s, Sir James became vice-chancellor and then chancellor of the University of Melbourne.

A number of other figures associated with the university were involved in the wartime campaign against VD. Dr John Cumpston had graduated in 1902, and in 1913 became director of the Commonwealth Quarantine Service. During the war he was also a lieutenant colonel in the AAMC Reserve, and developed quarantine screening methods to identify AIF troops returning to Australia who had infectious diseases, including VD. In 1919, in a Commonwealth Quarantine Service bulletin, Cumpston released the first official statistics revealing the true number of wartime VD infections in the army.

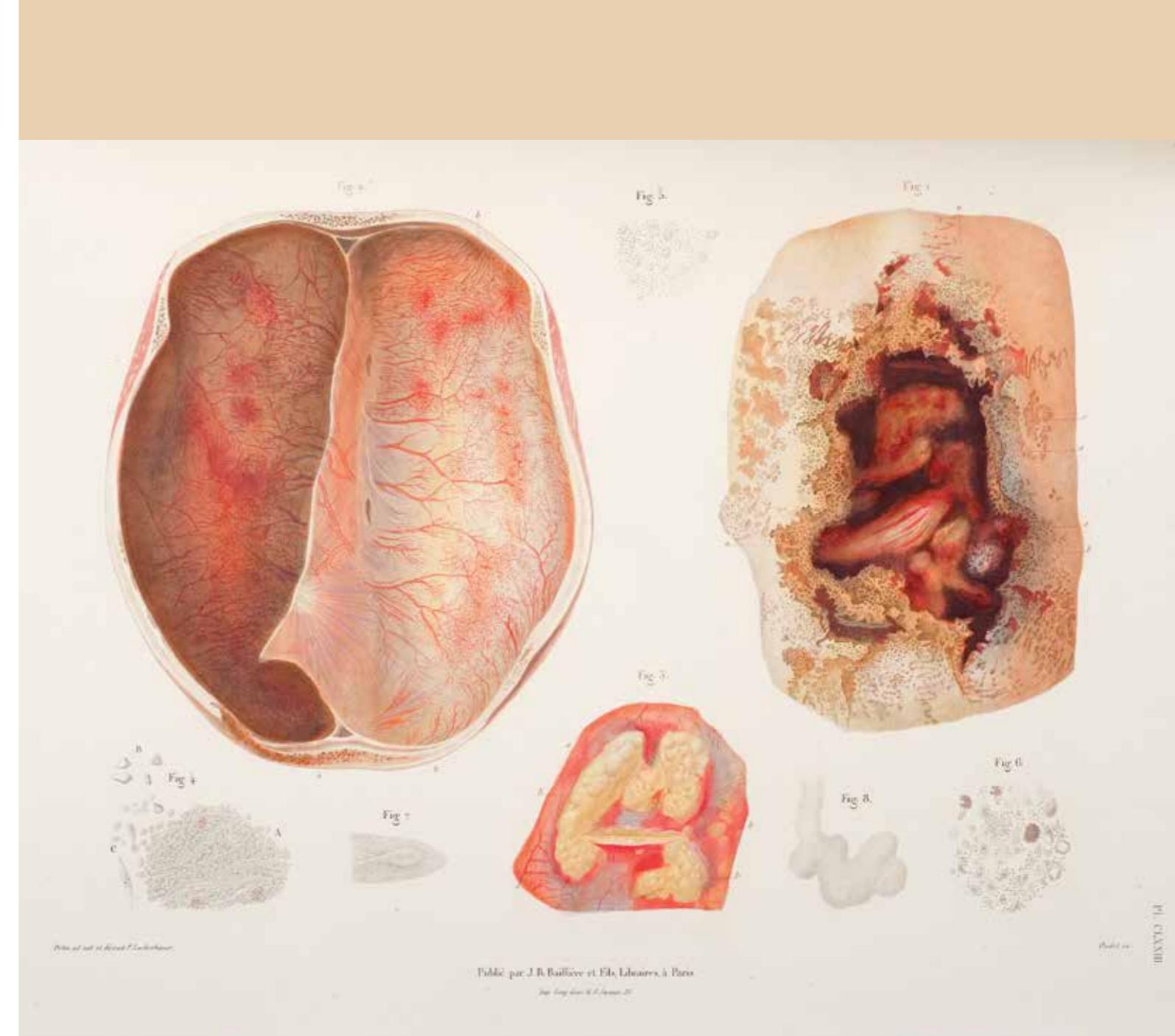
Cat. 23 Burroughs Wellcome & Co. (Australia) Ltd (Sydney), **Pill bottle: potassium permanganate (gr. 1)**, c. 1900, potassium permanganate, glass, paper, ink and cardboard, 6.8 × 3.6 × 3.0 cm. Originally from Palmer's Pharmacy, Ballarat, Victoria, MHM01378, Medical History Museum, University of Melbourne.



At the outbreak of war, Professor John Rentoul occupied a chair in theology at Ormond College at the university, and was an outspoken morals campaigner. After the AIF was formed, Rentoul was among the first to point out that the army appeared to tolerate immorality in soldiers, including catching VD. Later he became a chaplain-general in the AIF and, while serving overseas, continued a morals campaign against the sexual promiscuity of soldiers.

Most of the AAMC medical officers who worked at Langwarrin were graduates of the University of Melbourne. Dr Charles Johnson, a senior medical officer, led research into better methods for bacteriological testing, and into curing gonorrhoea. Dr Mathias Perl improved methods for treating syphilis. Dr Arthur Morris was a senior medical officer in 1915 before transferring to 1ADH, with which he worked at Abbassia and Bulford. After their army service ended, Johnson, Perl and Morris became prominent VD specialists in Melbourne, Johnson opening the first public VD clinics for men and women. Other University of Melbourne graduates who worked at Langwarrin during the war were Dr John Butchart, Dr Alexander Cook, Dr Whitfield de Witt Henty, Dr George Gray Nicholls, Dr Henry Hunter Griffith and Dr William Potter.

#### Raden Dunbar



Cat. 183 Plate CLXXIII from Hermann Lebert, *Traité d'anatomie pathologique générale et spéciale* (vol. 1: Atlas), Paris and New York: J.-B. Baillière, 1864. Special Collections, Baillieu Library, University of Melbourne.



## SHELL SHOCK: DR CLARENCE GODFREY

Dr Clarence George Sheffield Godfrey (1867–1948), widely known as ‘Clarry’ Godfrey, is a classic example of a man whose unusual combination of skills led to progress in a time of crisis and consternation.

When the first Australian casualties from war in Europe began returning to Australia in 1915, Godfrey was one of very few senior mental health specialists on hand in Victoria to assist those experiencing mental difficulties, including the complex and newly diagnosed condition known as ‘shell shock’. Soldiers affected by shell shock need not have any obvious wounds, but the physical or psychological stress they endured at or near the battlefield could leave them with disabling symptoms, such as an inability to see, smell or taste properly, memory loss, and tremors. The head of Victoria’s Lunacy Department, Dr W Ernest Jones, explained Godfrey’s vital role in cases of shell shock:

The first few shell shock cases returning from Gallipoli were placed under my observation but as it was quite impossible for me to find time to do them justice, I put Dr Godfrey on to the staff at No. 5 AGH [No. 5 Australian General Hospital, in St Kilda Road, Melbourne] and he had some quite amazing results with hypnotic suggestion ... There were very many of the emotional and hysterical cases which responded to suggestion sometimes without hypnotism but often more rapidly after a mild first degree hypnosis.<sup>1</sup>

At the time of Godfrey’s appointment to the No. 5 Australian General Hospital [5AGH], he was in his eighth year as visiting medical officer in charge of the Lara Inebriate Retreat near Geelong and in his sixth year as medical superintendent of the Royal Park Mental Hospital and Receiving House in Melbourne. In both facilities he was the founding medical officer, which indicates Jones’ high regard for Godfrey’s administrative ability and clinical acumen. In addition to holding these three jobs throughout the war, he took responsibility for all returned soldiers sent to Royal Park after its Receiving House was designated a military mental hospital in 1915. He also assessed military recruits for psychological health. This long list of duties suggests an admirable capacity for hard work.

In a paper published in 1918, Godfrey described his approach to treating a number of returned servicemen admitted to 5AGH with disabling stutters and stammers following

Cat. 237 **Dr Clarence Godfrey (1867–1948)**, c. 1916, photograph. 1.1029, Mental Health Photograph Collection, Royal Melbourne Hospital.

shell shock. In each case he hypnotised the patient, inducing a hypnotic sleep or lethargy. Godfrey then applied a form of psychotherapy that sought to liberate emotions lingering in the unconscious mind by suggesting to the patient that he was perfectly relaxed mentally, and could easily pronounce the stumbling words because his vocal mechanism was sound and intact: there was nothing to prevent him from speaking clearly and he would be utterly convinced of this when he found himself doing so on waking. Godfrey then ordered the man to repeat after him simple words or sentences, leading on to more difficult ones. Almost always, the patient spoke fluently and in a normal tone. Finally, the patient was told to keep repeating a well-known rhyme; when he woke he found himself speaking fluently as predicted. This treatment of psychotherapy under hypnosis was given repeatedly over a month. Regular 'renewal of suggestions' followed for a further period of months. Although the results were gratifying, Godfrey advised against premature use of the word 'cure'.<sup>2</sup>

At 5AGH Godfrey extended the use of hypnotic suggestion to others whom he deemed suitable. Their symptoms included persistent muscular tremors, insomnia, paralysis of unknown origin and hearing disturbances, sometimes arising soon after exposure to the horrors of warfare but also capable of emerging years later. He was optimistic about the future of the treatment, telling a 1920 meeting of his colleagues that the war had done much to dispel doubts about 'this powerful therapeutic agent' and that there were 'probably few among those who have investigated it who are not converts'. The idea that psychic disturbances should be treated whenever possible with psychic therapies seemed to be catching on.<sup>3</sup> In both Britain and America, the treatment of shell shock was increasingly deemed the rightful province of specialists in psychological rather than physical medicine, the latter having proved ineffective, especially in their misguided attempts at electrical stimulation of affected body parts.

The origins of Godfrey's use of hypnosis and psychoanalysis can be traced to his pre-war fascination with the treatment of habitual drunkenness and drug-taking. Godfrey began studying medicine at the University of Melbourne in 1884, before transferring to Edinburgh University where he completed his surgical training. In Scotland and England he kept abreast of changing approaches to the treatment of inebriety (alcohol dependence), which some governments judged needed a legislative framework.

On returning to Victoria he joined the Lunacy Department in 1891 and, during the following 14 years, worked as the prison medical officer at Melbourne Gaol. He also made the rounds of country and metropolitan mental hospitals, including those at

Cat. 144 Back cover and 'Hospital from St Kilda Road', from *Bravo Gallipoli: In memory of ANZAC: 25th April, 1915*, Melbourne: No. 5 Australian General Hospital (Base Hospital), 1918, photographic souvenir in printed cover, 14.3 x 22.6 cm. MHMA1997.1, Australian Medical Association Archive, Medical History Museum, University of Melbourne.



Ararat and Royal Park, as was the norm for trainee mental health specialists. In all these places he saw patients whose lives had been destroyed by alcohol or drug dependence.<sup>4</sup>

Godfrey enjoyed the work and seemed drawn to act on this community problem, due perhaps to his Presbyterian faith or, more likely, his family heritage. His father, George Godfrey, a well-known solicitor, was treasurer of the Melbourne Hospital. His wife, Alice (née Berry), and her sister were the first women to qualify as dentists in Victoria, and his wife's father, (Sir) Graham Berry, had been premier of Victoria (1875 and 1877–81) and Victoria's agent-general in London (1886–91).

An opportunity to assess treatments for habitual drunkenness came Godfrey's way when he was appointed medical representative on a Victorian parliamentary inquiry into 'certain alleged cures', which sat in 1902. It made recommendations about what sorts of inebriate institutions for early and curable cases might be established in the future,<sup>5</sup> suggesting that any such facility should encourage patients to seek help voluntarily early in the course of their dependency and that patients should pay, in part or full, for their treatment.

According to Godfrey's family, it was around this time that he became acquainted with Sigmund Freud's work on hypnotic suggestion and from then on used his gold watch to achieve hypnotic states in patients deemed 'suggestible'.<sup>6</sup> In Godfrey's hands, hypnotism was like opening a door, giving access to psychological treatments that could ease a patient's mental distress, rather than being curative in its own right.

An outcome of the inquiry was the establishment in 1907 of a government-owned and operated inebriate retreat, 'Lara', which was neither a hospital nor a clinic, located in a large country mansion on 640 acres of land. There was nothing else like it in Australia. In idyllic surroundings and with access to diverse amusements and mental recreations, men with alcohol and drug dependency problems could, under Godfrey's watchful eye, learn to abstain from drink. (A few years later another institution, 'Brightside', was established in Malvern for women with similar problems; it was run by the Salvation Army under government supervision.) Godfrey ensured that hypnotic suggestion was included in the treatments offered at Lara, alongside nerve and gastric tonics, physical exertion, water baths and electrical stimulation.<sup>7</sup>

Future Australian prime minister John Curtin was a patient at Lara in 1916. He submitted to treatment after realising that heavy drinking bouts were rapidly leading to his possible downfall.<sup>8</sup> Around the same time the first influx of returned soldiers arrived at the retreat. History does not relate whether hypnosis and psychotherapy were employed in their treatment or indeed in Curtin's, although Godfrey was certainly using the combined approach at Lara at the time.

Within three years, over a hundred returned soldiers had been treated at Lara. For some of these men, the Department of Repatriation agreed to cover the cost of treatment, on the basis that the war had caused their dependency problem. In the 1920s,

ex-soldiers constituted a large minority, or more, of total admissions to the retreat, a fact that started to irk Jones, who thought some were expecting too much and contributing too little.

Official figures indicate that nearly 5000 members of the 1st Australian Imperial Force were discharged from active service because of war-related psychological trauma.<sup>9</sup> In Victoria alone, by 1925 around 1000 service personnel had been sent to government mental hospitals for treatment and recuperation, 100 to 150 of whom remained in care.<sup>10</sup> Officials who thought that, with the passage of time, additional cases would be few and far between were surprised by the continuing stream of war service personnel who presented with psychological problems. This resulted in overcrowding, a need for additional facilities and cost blowouts.<sup>11</sup>

Jones applauded Godfrey's use of a psychological approach with suitable patients and welcomed the media coverage it attracted, despite Godfrey's evident dislike of the spotlight. But many medical practitioners and military officials were sceptical, both because the approach legitimised help-seeking behaviour in servicemen and because it was at odds with the physical (biological or organic) conception of mental illness that prevailed in Australia and other countries with a strong British medical tradition. Godfrey must have been aware of 'the scoffing of some of his colleagues', but he had earned sufficient credibility to lecture on mental matters to University of Melbourne medical students, and to continue as Lara's medical officer and the Lunacy Department's chief medical officer when he retired from Royal Park in 1920.<sup>12</sup>

The extent to which Godfrey's methods stimulated broad adoption of psychoanalytic approaches in Australia and influenced the large-scale development of applied psychology is debated. Some commentators portray him as an advocate who prompted a degree of intellectual ferment. Others view his therapeutic inventiveness as ultimately inconsequential, with authorities choosing to manage problems within existing structures and paradigms.

While the jury remains out on this point, Godfrey undoubtedly strongly influenced a number of junior doctors, who ended up making a lasting impression on psychiatry in Victoria. They included John Adey and Paul Dane, both of whom were University of Melbourne medical graduates (1909 and 1905 respectively) and Gallipoli veterans.

Adey, interpreting Godfrey's approach as a willingness to address problems of the mind in different ways—psychological, biological and social—became a therapeutic innovator, outstanding teacher, World War II colonel in Egypt, and medical superintendent of Royal Park from 1932 to 1952.<sup>13</sup>

Dane studied the use of electrical stimulation of shell-shocked soldiers after being invalided home after World War I. He became disillusioned with this approach however, and mastered hypnosis and psychoanalytic techniques. He joined the Alfred Hospital's psychiatric department and was a central player in the establishment in 1940 of the

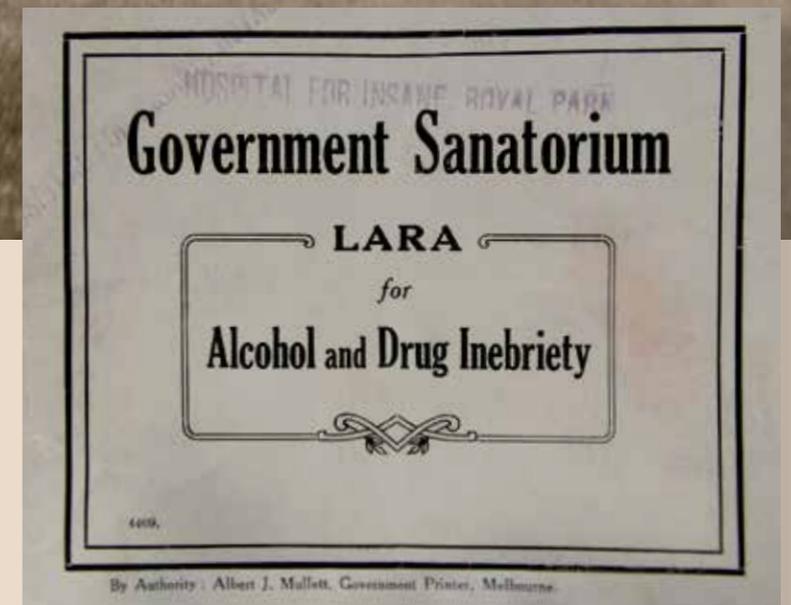
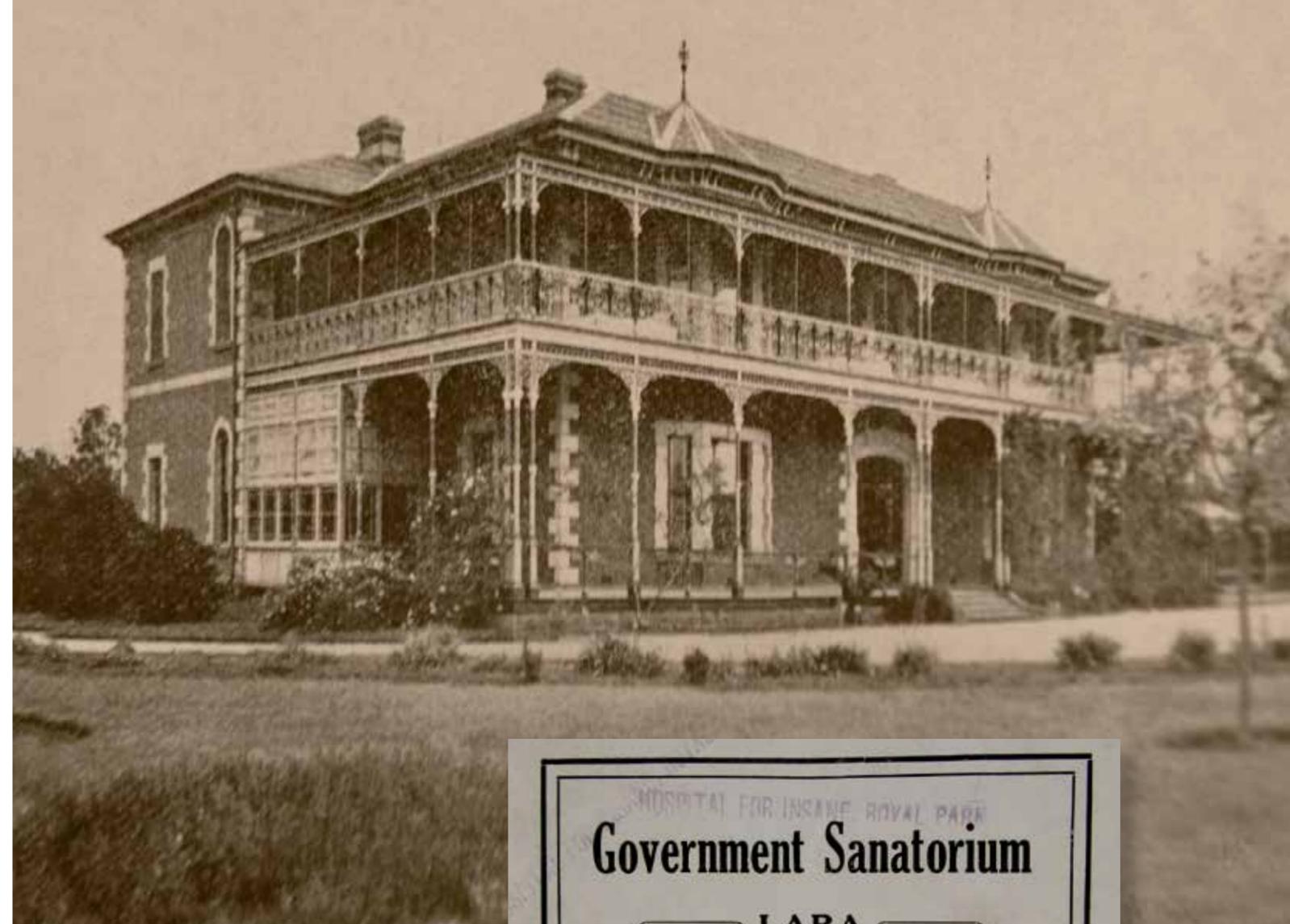
Melbourne Institute for Psycho-Analysis. Godfrey opened up for Dane ‘the vast and ever-fascinating realm of the mind and its disorders ... during those post-war years when we were faced with the tremendous task of dealing with disorders that up till then had received practically no recognition in our medical training’.<sup>14</sup>

Dane also took heed of Godfrey’s style of communication—his charm of manner and ‘compelling smile’—evident in an image of him wearing the uniform of the Australian Army Medical Corps. The smile, which ‘won many a friendship’, reflected Godfrey’s ‘modest and unassuming’ nature. It sat well with Dane’s lasting memory of his mentor’s helpfulness and kindness, ‘especially to returned soldiers, numbers of whom would long remember the help that he so freely gave them’.<sup>15</sup>

### Dr Ann Westmore

- 1 WE Jones, diary, undated, Victorian Mental Health Collection, Royal Melbourne Hospital.
- 2 CGS Godfrey, ‘Some cases of stammering from war shock treated by psychotherapy’, *Medical Journal of Australia*, vol. 2, 28 September 1918, pp. 262–4. Also published in the *Journal of Nervous and Mental Disease*, vol. 49, no. 2, February 1919, pp. 166–7.
- 3 C Godfrey, ‘War psycho-neuroses and their treatment’, *Transactions of the Australasian Medical Congress, 11th session, Brisbane, 1920*, Brisbane: Anthony James Cumming, 1921, p. 423.
- 4 R Lindstrom, ‘The Australian experience of psychological casualties in war 1915–1939’, PhD thesis, Victoria University of Technology, 1997, p. 268.
- 5 C Clark, ‘Reformers, doctors and the state: Dealing with chronic drunkenness in Victoria 1870–1930’, PhD thesis, University of Melbourne, 2014, pp. 168–9.
- 6 J Walker (granddaughter of C Godfrey), personal communication.
- 7 *Government Sanatorium Lara for Alcohol and Drug Inebriety*, Melbourne: Albert J Mullett, Government Printer, for the Department of the Chief Secretary, 1918.
- 8 L Ross, *John Curtin: A biography*, Melbourne: Macmillan, 1977, pp. 47–9.
- 9 AG Butler, *The Australian Army Medical Services in the war of 1914–1918*, vol. 3: *Special problems and services*, Canberra: Australian War Memorial, 1943, table 57, p. 942.
- 10 WE Jones, ‘Memo re Mont Park military mental cases’, 6 March 1925, Military Mental Hospital Correspondence files, Public Record Office Victoria, VPRS 7527/P1/1. In the same file see also J Catarinich, ‘Memo re vital statistics and the Military Mental Hospital, Mont Park’, 26 February 1925.
- 11 See annual reports of the Department of Repatriation for 1926 and 1934.
- 12 P Dane, ‘Obituary: Clarence Graham [sic] Godfrey’, *Medical Journal of Australia*, vol. 1, 12 February 1949, p. 224.
- 13 J Catarinich and AE Pritz, ‘Obituary: John Kellerman Adey’, *Medical Journal of Australia*, vol. 2, 4 December 1959, pp. 863–4.
- 14 Dane, ‘Obituary’.
- 15 *Ibid.*

Cat. 238 Photograph of mansion, and front cover, from *Government Sanatorium Lara for Alcohol and Drug Inebriety*, Melbourne: Albert J Mullett, Government Printer, for the Department of the Chief Secretary, 1918. 4.094, Royal Melbourne Hospital, Mental Health Photograph Collection.



## SHATTERED FACES: ORAL AND MAXILLOFACIAL SURGERY AT SIDCUP

### Introduction

‘War is the father of all things’ is a saying attributed to the fifth-century BC philosopher Heraclitus of Ephesus.<sup>1</sup> It is certainly the case that war has very often resulted in advances in medical science. As the lethality and range of weapons increased, so did the extent and complexity of the wounds caused. Military surgeons have always responded to these challenges by developing new and improved methods of treatment.

In the Great War, all the major combatant nations sent their soldiers to war with headgear that gave some protection from the sun, but no protection at all from bullets or shrapnel. As the Western Front congealed into a tangled web of muddy trenches and barbed wire, an infernal hail of shrapnel and bullets fell on the men in the trenches. By 1915 all armies had adopted some form of steel helmet to protect, in as much as they could, their wearers from shrapnel and bullets. However, there was no protection for the face and jaws. AG Butler, author of the official history of the Australian Army Medical Services during the war, observed:

The mortality of wounds of the face and jaws was greatly influenced by the course taken by the missile. If it traversed the face in an antero-posterior direction the wound was likely to be fatal owing to concomitant injury to the great vessels, brain or spinal cord. If on the other hand the missile pursued a side to side course the mutilation, though frequently great, was not nearly so apt to be lethal.<sup>2</sup>

The standard text for training British and Imperial medical corps officers and troops concentrated on bullet and shell wounds of the body and limbs. It did not describe facial and jaw wounds. It did state that shell wounds ‘generally produce considerable laceration of the parts, and may lead to the total destruction of a limb, etc. They have no peculiarities beyond their severity, but, being open ragged wounds, they are more liable to septic infection’.<sup>3</sup>

The words ‘considerable laceration’ and ‘mutilation ... frequently great’ are restrained compared with the reality of the absolutely ghastly wounds seen in photographs, drawings and paintings of the time. These men look at us through the lens of the camera or the eye and hand of the artist. In photographs most of the men look straight at the camera,

Cat. 226 **Queen Mary, escorted by an officer and two nurses, visiting a patient at Sidcup Hospital, Kent, England,** c. 1917–18, photograph. PO3040.001, gift of H Crompton, Australian War Memorial.



although some look away, as if ashamed. Artists using coloured pastels or watercolours provided the evidence of livid scars, dark-red granulation tissue, suppuration and drooling saliva. Time has not diminished the shocking appearance of these grievously wounded men.

After a halting start, the Allied casualty evacuation system that developed on the Western Front was efficient and humane. If a soldier with a facial or jaw wound did not succumb to severe haemorrhage or airway obstruction, he would be transferred to a hospital in England. The ferocity of artillery fire before and during the Somme offensive in July 1916 resulted in more facial wounds. Two hundred extra beds were set aside for facial cases at the Cambridge Hospital in Aldershot. As the number of casualties with facial and jaw injuries increased, the need was felt for a special hospital to deal specifically with these wounds.

### The Queen's Hospital, Sidcup

In the early phase of the war, cases of facial and jaw wounds were managed in France, but when the numbers proved to be overwhelming a special hospital was required. Money for this came from the British government, private individuals and a fund raised by the *Evening Standard* newspaper.

The cause was greatly helped by the personal interest and advice of Queen Mary, who commanded that, on completion, the hospital should be named the Queen's Hospital, Sidcup. Building commenced in February 1917, and the hospital was completed in five months, the first patient being admitted on 16 July 1917. Later that year, it was decided that the Queen's Hospital should be the central military hospital for facial and jaw injuries, not only for the United Kingdom, but for all the Imperial Expeditionary Forces. The buildings were enlarged to accommodate 560 beds, and six smaller hospitals, containing 450 beds, became affiliated to it.<sup>4</sup>

More than 8000 patients were treated for facial and jaw injuries at Sidcup. As well as the British, the Canadian, Australian, New Zealand and American surgeons and dentists had their own units at Sidcup, in order to learn the new techniques of plastic surgery being pioneered by the New Zealand surgeon Major (later Sir) Harold Gillies. These national units treated their own soldiers, but there was a high degree of cooperation between all the units, for the benefit of their patients.

Cat. 207 **Brown, 27.8.1917, Typical bullet entrance wound**, 1917, reprinted 1940, photograph, 30.0 × 22.3 cm. Gift of the Army Cinema Centre, 1979.0044, Sir Arthur Barton Pilgrim Amies Collection, University of Melbourne Archives.

Cat. 209 **Brown [after surgery], 3/7/18, 1918**, reprinted 1940, photograph, 30.0 × 22.3 cm. Gift of the Army Cinema Centre, 1979.0044, Sir Arthur Barton Pilgrim Amies Collection, University of Melbourne Archives.



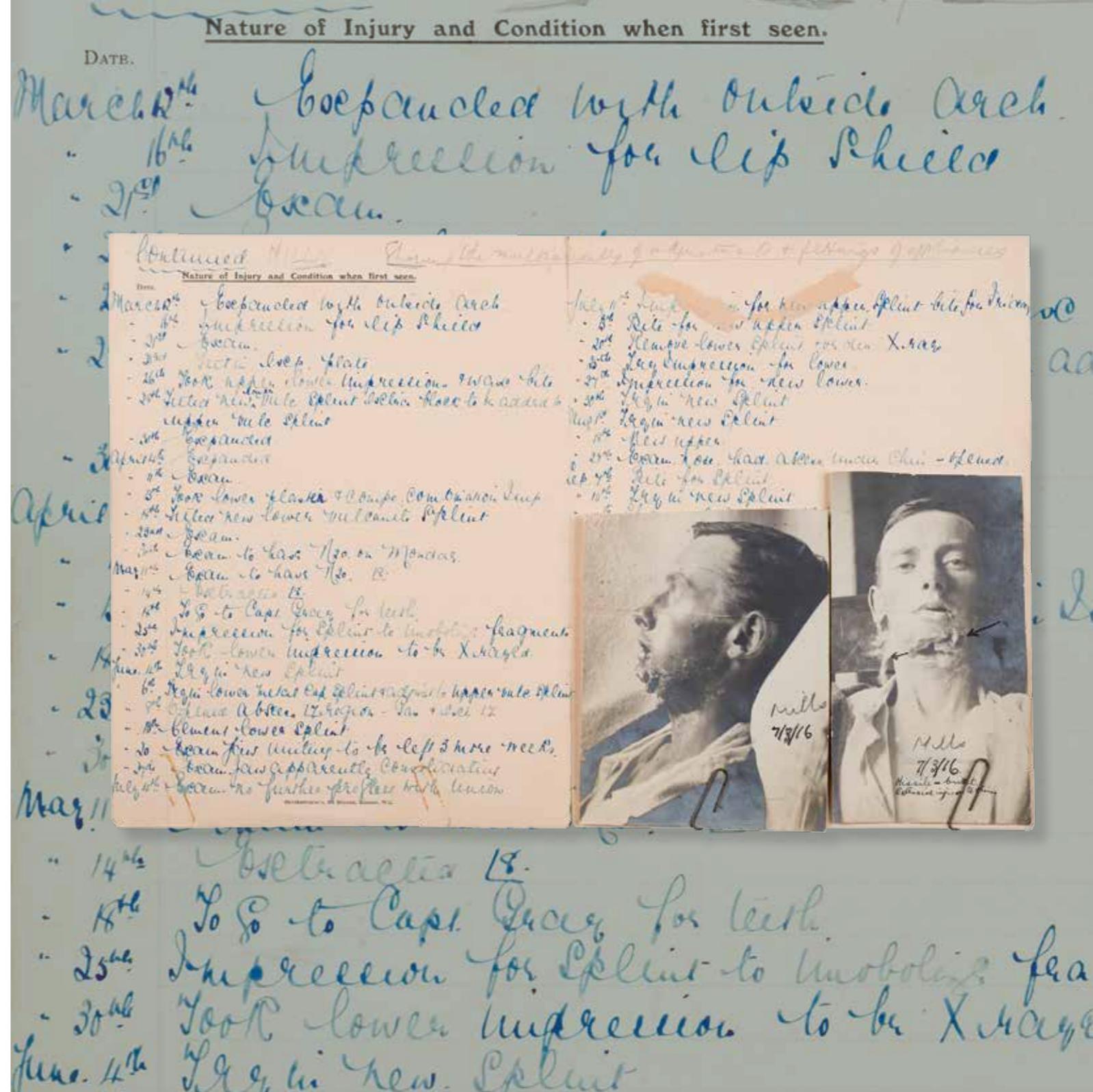
**Major Kenneth Russell—Australian Army Dental Service**

Kenneth Russell was born on 6 July 1885 in Wellington, New Zealand. He began his dental training in 1901 when, at the age of 16, he was apprenticed to Mr Arthur H Bell, dentist, of Collins Street in Melbourne. He attested on 18 January 1916 and on 28 January embarked as a captain on HMAT *Themistocles*. Russell's appointment as a captain represented an important stage in the development of the dental profession in Australia. It reflected an acceptance that the level of knowledge, skill and training achieved by dental officers was equivalent to that of medical officers. In a letter to Russell, Butler stated: 'Hitherto (as it seems to me) this profession has been too closely identified by the public (and the medical profession) with the strictly technical, as distinct from the scientific and artistic aspects of your special branch of medicine'.<sup>5</sup>

Captain Russell saw service with the Australian Imperial Force (AIF) as a dental officer, first in Egypt and then with various medical units in France. On 16 December 1917 he was attached to the Queen's Hospital in Sidcup. He was promoted to the rank of major and was, apart from caring for patients with jaw and facial injuries, responsible for training dental officers in the special methods of treatment used at that time. In 1919 Major Russell described his work at Sidcup in a letter to AIF Headquarters, London:

With Lt Col Newland DSO I commenced work at this hospital on 7 January 1918. The work consists of treating fractured jaws (splinting etc) and making special appliances for facial operations, making a collection of splints and prosthetic appliances for the Universities of Sydney, Melbourne and Adelaide. This has now been completed. In addition dental officers have been attached for a course of instruction for varying periods. Capt's Watson (Sydney), Findlay (Melbourne) and Taunton (Adelaide) are the officers. The mechanics, who at first numbered two are now, at date, 7. I think that 6 capable mechanics are required for a unit treating 100 beds as we have been with two dental officers. Not so much for the amount of work but for quickness in making the various splints etc. necessary in this work; for the quicker the jaws are splinted and the parts at rest the more speedy are the conditions improved. I would like to place on record my appreciation of Lt Col Newland DSO and his help to the unit. At all times have we worked in conjunction—he has always sought my opinion and allowed me to treat jaw cases as I wished, and his advice as a surgeon and friend has been invaluable.<sup>6</sup>

Cat. 203 Patient record from Sidcup showing the types of injury and treatments undertaken for Mills, LR, c. 1918, 21.0 x 26.5 cm. 1979.0044, Sir Arthur Barton Pilgrim Amies Collection, University of Melbourne Archives.



It is important to note that the dental mechanics of the Australian Army Dental Service demonstrated a very high level of technical skill in constructing these appliances, which was often done under the most difficult physical circumstances.

After the war Russell returned to his practice in Collins Street. In 1921 the University of Melbourne awarded him the degree of Doctor of Dental Science for a thesis based on his work during the Great War, titled 'Restoration of the superior maxilla by means of prosthetic appliances':

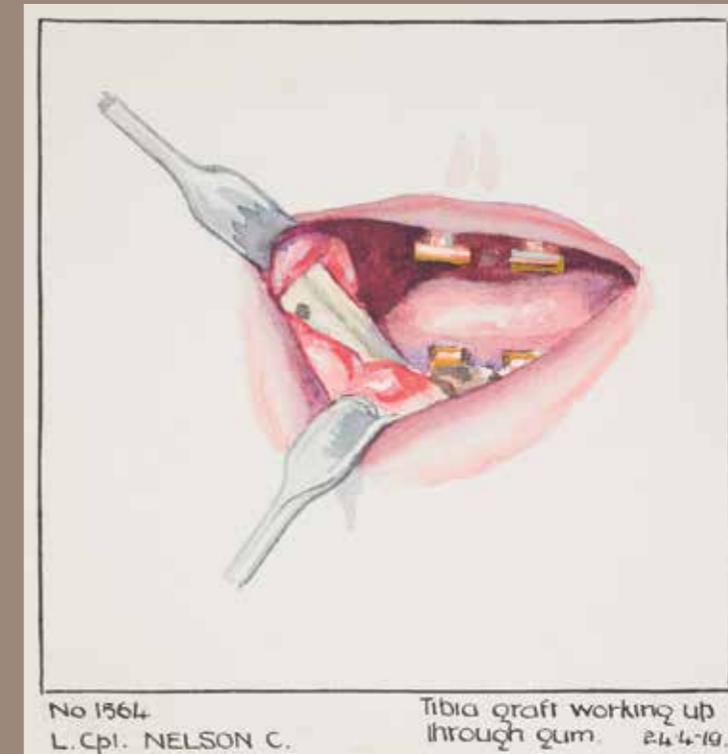
The tendency, in those cases in which more or less bony structure has been lost, is that nature tries to fill in the gap, with the final result of a hole of varying size and shape bounded on the one side by the remaining bony tissue, and on the other by a mass of soft tissue, over which it is difficult, or in most cases impossible to fit any appliance that will be firm or restore the facial contour. For this the method of Intra-Oral Skin-Grafting described below has been adopted. It is a surgical proceeding in which Surgeon and the Dentist play a part. It facilitates (1) The making of a Prosthetic Appliance which restores function, and facial contour, and (2) Overcomes the difficulties in speech ... The finished result is a restoration of loss and a restoration of function, by a light well fitting appliance, easily tolerated by the patient, and, after a little practice, easily adjusted by him.<sup>7</sup>

Further reading of this thesis shows that Russell had a profound understanding of both facial anatomy and the properties and techniques applicable to the full range of dental materials available at the time. He discusses the use of Stent's impression compound as well as Ash's black gutta percha, black vulcanite, silver sand, asbestos and cast pins and wires, as well as the various grades of plaster of Paris.

There were two phases in the treatment of avulsive wounds of the middle third of the face in 1917. The first depended on the ability of the dental surgeon to provide a stable splint to carry a split skin graft to the recipient site and hold it in place until the graft had taken. Once the resulting cavity was stable, a permanent obturator was constructed. From his work at Sidcup, Russell was aware of the importance of maintaining as much viable bone as possible to help retain the appliance. In the pre-antibiotic era of the Great War, the principles of asepsis and antisepsis were vital in all aspects of surgical and dental treatment.

Cat. 233 (Ernest) Daryl Lindsay (Australian, 1889-1976), [Se96/139] **No 69: Pte Paterson (115)**, c. 1916, watercolour and ink on paper, 17.0 x 17.5 cm. Royal Australasian College of Surgeons.

Cat. 234 (Ernest) Daryl Lindsay (Australian, 1889-1976), [Se96/130] **No. 1564: L Cpl. Nelson C: Tibia graft working up through gum**, 24 April 1919, watercolour and ink on paper, 10.5 x 10.1 cm. Royal Australasian College of Surgeons.



## Summary

The doctors and dentists involved in treating the shattered faces of the soldiers at Sidcup showed compassion in the care they provided and in their unrelenting drive to develop better methods of treatment. They recorded their findings and case notes accurately, and both professions learnt valuable lessons from their experience. Photography and art were harnessed so that we have been left a vibrant visual record, which is both scientifically valuable and deeply affecting.

Courage can be demonstrated in many ways. The wounded soldiers showed the quiet courage of submitting to multiple surgical procedures. There was also courage in dealing every day with these young men whose sense of self had been horribly, and seemingly irrevocably, damaged.

Major Kenneth Russell DDSc, dental surgeon, stands with all those doctors, nurses, orderlies and dental mechanics who responded to the challenges of a ferocious war with compassion and courage.

## Dr Rowan Darroch Story

- 1 P Harvey (ed.), *The Oxford companion to classical literature*, Oxford: The Clarendon Press, 1962, p. 204.
- 2 AG Butler, *The Australian Army Medical Services in the war of 1914–1918*, vol. 3: *Special problems and services*, Canberra: Australian War Memorial, 1943, p. 329.
- 3 Great Britain War Office, *Royal Army Medical Corps training*, London: Her Majesty's Stationery Office, 1911, reprinted 1915, p. 318.
- 4 London Borough of Bexley, 'Queen Mary's Hospital 1915–1971', [www.bexley.gov.uk](http://www.bexley.gov.uk), accessed 9 February 2015.
- 5 AG Butler, letter to K Russell, 21 April 1945, Newland and Russell, P 29, 41 454, Australian War Memorial.
- 6 Major K Russell, letter to Staff Officer Army Dental Service, AIF Headquarters, Horseferry Road, London, 26 February 1919, 41 454, Australian War Memorial.
- 7 K Russell, 'Restoration of the superior maxilla by means of prosthetic appliances', DDSc thesis, 1921, University of Melbourne, p. 1, Special Collections, Baillieu Library, University of Melbourne.

Cat. 221 Australian official photographer, **Captain Kenneth Russell (1885–1945) working on a non-commissioned officer of his unit, in the dental surgery at Henencourt, France**, March 1917, photographic print from glass negative original. E00378, Australian War Memorial.





## FORGOTTEN BODIES: PATHOLOGY SPECIMENS FROM THE TRENCHES

World War I began in July 1914 and trench warfare began in September, lasting until August 1918. Opposing armies faced each other at close quarters for this whole time, and conditions in the trenches were appalling. There were rats, body lice, flies and the stench of pit latrines and decaying bodies, both human and animal. On 22 April 1915 German gas attacks began around the Belgian town of Ypres. To add to this misery, the trenches filled with water and mud when it rained, and the winter of 1915–16 was a particularly cold one.

Diseases such as dysentery, meningitis, leptospirosis, streptococcal upper respiratory tract infections and acute nephritis were common. Sexually transmitted infection was rife. Psychiatric conditions were acute during the conflict and became chronic afterwards, sometimes blighting the rest of a soldier's life.

The condition known as 'trench foot' developed as a specific problem of living and working in the trenches. It was caused by having cold, wet feet in tight-fitting boots for days and nights on end. The feet became numb, swollen and gangrenous, blisters appeared and the skin peeled off. Deep ulcers revealed tendons and muscles and eventually eroded right down to the bones. Prevention consisted of removing the boots and wet socks, drying the feet and putting on dry socks. This had to be done a number of times each day. In 1914–15, some 20 000 British soldiers were treated for trench foot, but if the blight really took hold, the only solution was amputation.

In 1915 the British Army Medical Services (BAMS) inspected the conditions in the trenches and, appalled at what they saw, started to do something about it. Sir Alfred Keogh, director-general of the BAMS, instituted a scheme to record all medical conditions (both combat- and non-combat-induced). Such information would not only be an important historical record, but would also be useful for research and for training medical and allied health personnel in the future.

### Keogh's initiatives

As a result of Keogh's work, conditions in the trenches were alleviated, to some degree, by draining the trenches when it rained, improving sanitation and treating medical problems. All medical personnel were instructed to document the medical conditions they encountered and to send examples of wounds and other pathological specimens from casualty clearing stations and hospitals to the Royal College of Surgeons in London. The first specimens to

Cat. 228 Australian official photographer, **The Battle of Passchendaele, July–November 1917: Australian troops: Men of the 10th Brigade who had been in the front line trenches for several days have a foot inspection at Dragon Farm**, 14 October 1917, photograph. E(AUS) 939, Australian First World War Official Exchange Collection © Imperial War Museum.

arrive were lungs from soldiers who had been gassed in April 1915. Although the various gases used in the war caused slightly differing symptoms, the main problem was always acute damage to the lung tissue, followed quickly by pneumonia. The acute mortality was significant.

Laboratories were established to conduct clinical pathology tests on living soldiers, and a central mortuary was established in Etaples-sur-Mer in northern France. Here, between 1916 and 1918, pathologist Thomas Shore performed autopsies on about 3000 Allied soldiers. He prepared tissues fixed in formalin as well as many dry specimens of bones. These were all sent back to the War Collection of the Royal College of Surgeons. To complement these, the curator of the college's museum, surgeon and anthropologist Arthur Keith, commissioned the surgeon-pathologist John Bland Sutton of the Middlesex Hospital to collect similar surgical and post-mortem specimens from soldiers in British hospitals.

By 1916 these initiatives were in place and with the appointment of specialist pathologists the quality and quantity of the specimens improved tremendously. Keogh then recruited artists to record clinical conditions, wounds and the results of treatment. Artists included Sydney A Sewell and A Kirkpatrick Maxwell, both illustrators for *Gray's anatomy*, and Henry Tonks, who had given up medicine to specialise in art. Tonks' pastel drawings were mainly of war wounds repaired by pioneer plastic surgeons. Photographs, X-rays and wax models added to this documentation of wartime pathology. Those who collected the specimens went to great trouble to record relevant clinical information. Each specimen was given an accession number, but the only name recorded was that of the collecting doctor.

An audit in 1929, supported by information recently provided by various curators, located 2000 wet specimens showing the nature and sequence of wounds and diseases of modern warfare, 600 dry specimens of bone injuries, 150 wax models showing the results of facial plastic surgery, plus drawings and X-rays. A distinction was made between the bodies of the soldiers and the pathology specimens; the soldiers were buried in France while the specimens were repatriated to London and later to Australia and Canada. The anonymous, disaggregated specimens were regarded as representing every soldier who suffered a given type of injury, and as these men's combined contribution to the education of future generations.

What were the Germans doing about recording the pathology of war injuries, given that German pathologists were leading the world in this developing discipline? In 1916 Ludwig Aschoff, the foremost German pathologist and an internationally recognised leader in the specialty, met in Berlin with German military chiefs to establish a War Pathology Service. He established five pathology units—one for each German Division—in which many post-mortems were performed, the specimens sent to Freiburg, Berlin and Munich (and a few to a museum in Vienna) for research after the war.



Cat. 230 Lieutenant John Warwick Brooke, **Western Front: A sergeant of the Lancashire Fusiliers in a flooded dugout opposite Messines near Ploegsteert Wood**, January 1917, photograph. Q 4665, Ministry of Information First World War Official Collection © Imperial War Museum.

When the Americans entered the war in April 1917, orders were given to send all pathological material received at their camp hospitals to the Army Medical Museum in Washington DC, which already held specimens from the Indian Wars, the American War of Independence and the American Civil War. But by May 1918 only a few specimens had been received; pathologist James Ewing was sent to France to find out why. He found many inefficiencies in the provision of pathological services. There were quite a few clinical laboratories and several mortuaries but very few anatomical pathologists. It was not until well into 1918 that good specimens began to arrive in Washington. Ewing gave special acknowledgement to WG MacCallum, who sent lungs from soldiers who died from the influenza epidemic that began among the troops in 1917 and 1918 and then spread throughout the world as the soldiers returned to their homelands.

### **The fate of the specimens**

So, what became of all these pathology specimens? After an initial flurry of demonstrations and journal articles it seems as though most have remained unused in their museums. The bulk of those in London and Germany were destroyed by bombings in World War II, while the majority of those sent to Australia and all those in Canada appear to have been lost.

In 1916 a display of World War I pathology was opened in the museum of the Val de Grâce military hospital in Paris. The following year a display of British specimens was opened at the museum of the Royal College of Surgeons, accompanied by a small handbook written by Arthur Keith.

About 650 specimens from Australian casualties were repatriated by Keith Inglis in 1919. In accordance with instructions from the director of medical services for the AIF, Colonel Newland, Inglis and Harry Brookes Allen (professor of pathology at the University of Melbourne) distributed most of these to Australia's three medical schools: Melbourne, Sydney and Adelaide. Some were sent to those states then without a medical school: Queensland, Western Australia and Tasmania. The recipient universities were to prepare the specimens for teaching and exhibitions.

In 1929, Sir Colin MacKenzie, director of the Australian Institute of Anatomy in Canberra, conducted a survey of the whereabouts of the specimens. Here are his findings.

Those in Sydney were under the care of Keith Inglis, by now professor of pathology at the university. Inglis wanted them to remain in Sydney for teaching medical officers and nurses, and in 1922 he made a display for the annual meeting of the British Medical Association held in Sydney. But it seems as though there are no specimens now in the Pathology Museum in the University of Sydney. In Melbourne the specimens were in the university's pathology museum. The professor at the time thought they would be useful for

Cat. 229 Unidentified soldier of the London Rifle Brigade, **British troops advance to the attack through a cloud of poison gas, viewed from the trench they have just left (on the opening day of the Battle of Loos)**, 25 September 1915, photograph. HU 63277B, London Rifle Brigade Collection © Imperial War Museum.





teaching but, in 1935, 177 specimens were sent to the Australian Institute of Anatomy in Canberra. A further 75 were identified at the university in 1962, but of these, only 13 remain today. The Adelaide specimens were still wanted for teaching, but all trace of them has since been lost. The specimens sent to Queensland, Western Australia and Tasmania were all lost.

In March 1918 the first consignment of specimens sent to Canada was received in the museum at McGill University, Montreal. Curator Maude Abbott and her assistant Mr EL Judah curated them on behalf of the Canadian Army Museum. They made a display for a meeting of the Canadian Medical Association in Hamilton, Ontario, in May-June 1918 and, after receiving more specimens, staged another at the American Congress of Surgeons meeting in Montreal in October 1920. A planned catalogue was not published and it seems that the specimens were later transferred to the Canadian War Memorial in Ottawa. The Canadian specimens can no longer be located.

Many of the 22 specimens now in the National Museum of the History of Medicine in Washington DC show the effects of blunt-force injuries or gunshot wounds. There are also lung specimens from the Spanish influenza epidemic, some of which were used in 1997 to identify the genetic code for that virus, an example of the practical uses of such specimens.

In 1941 the museum of the Royal College of Surgeons in London received a direct hit from a German bomb and most of the war specimens were destroyed; only three gas-affected lungs and one specimen of trench foot remain.

No specimens remain in Freiburg or Berlin and only a few in Vienna. The Army Museum in Munich holds about 60 specimens, including gas-affected lungs and various shrapnel injuries, plus photographs and memorabilia. In France, the Val de Grâce Museum now appears to hold no specimens.

Top left: A soldier's feet, amputated due to trench foot, 1915. Extensive ulceration with exposure of the metatarsal bones and gangrene of the tips of the toes. World War I Collection, Museum of the Royal College of Surgeons, London.

Top right: Wax model of a trench foot amputated in 1915. Pathologisch-anatomische Sammlung im Narrenturm, Vienna.

Bottom left: Lung of a gassed soldier (four days after) showing bronchopneumonia; gassed lung (12 days after) showing advanced bronchopneumonia with coalescence of some areas of pneumonia with the formation of abscesses. World War I Collection, Bayerisches Armeemuseum, Munich.

Bottom right: Front and back views of the lung of a gassed soldier, showing widespread rounded, cream-coloured areas of apparent consolidation consistent with bronchopneumonia. World War I Collection, Museum of the Royal College of Surgeons, London.

## The future

What might we do today to honour the patriotic spirit and sacrifice of the soldiers whose organs form the basis of these museum specimens and the dedication of the doctors who collected them with such loving care?

I believe it would be appropriate to examine and document the surviving specimens using modern methods, to glean any further information, which could then be made available to a much wider audience than previously possible. This could be undertaken by pathologists collaborating in the spirit of goodwill that characterises the centennial commemorations of the Great War.

## Professor Robin A Cooke

### Acknowledgements

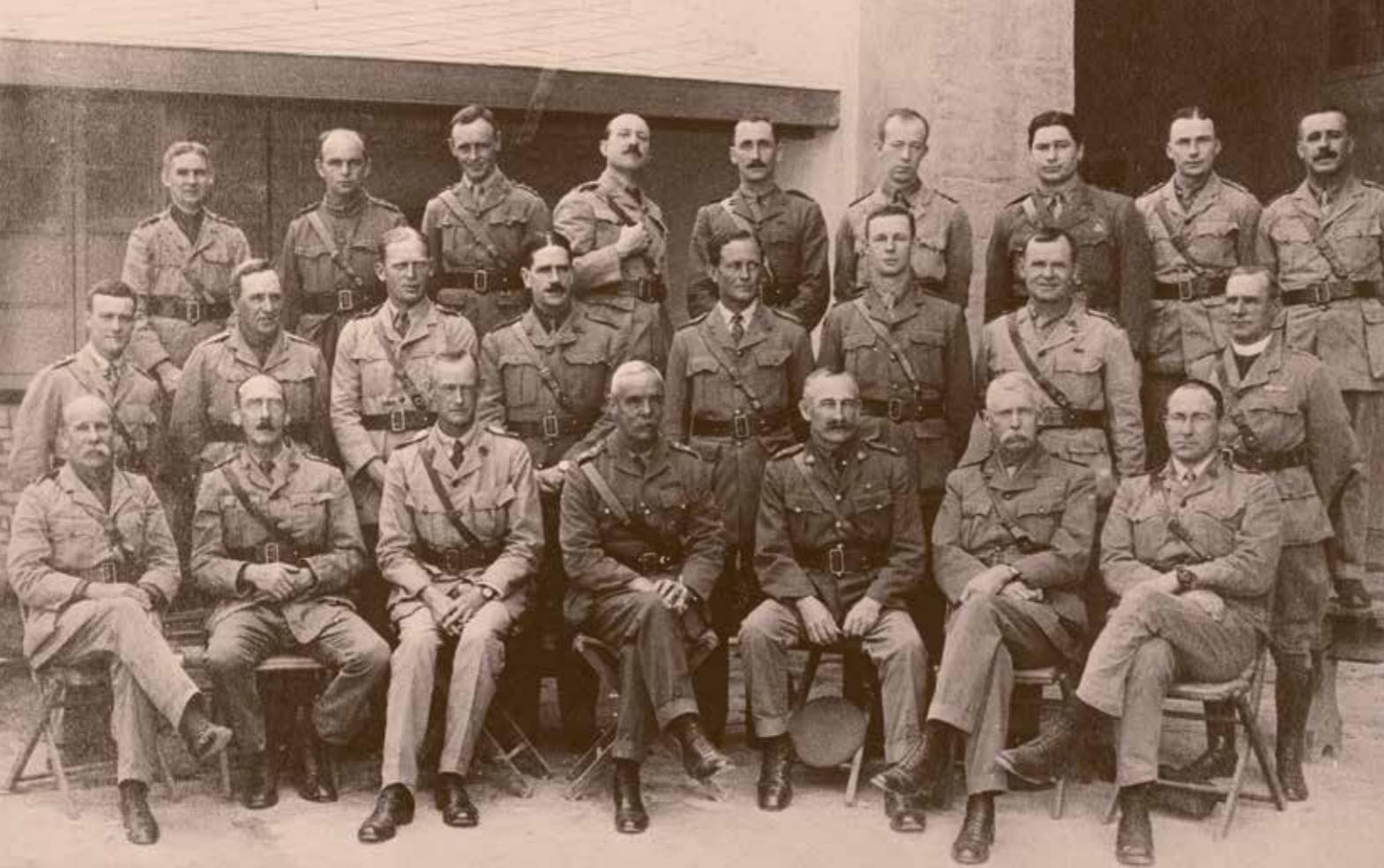
Information for this article was obtained by visits to the museums mentioned and from discussions with Sam Alberti, Martyn Cooke, Jo du Flou, Richard Fraser, John Hilton, Ryan Jefferies, Kathleen Martin, Peter Meister, Adrienne Noe, Joan O'Malley, Cay-Rüdiger Prüll, Annette Schmitt-Graeff, Brian Spatola, Mark Whitmore, Eduard Winter and Karlheinz Wurster. Permission to take and use photographs was kindly given by the respective curators.

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Cat. 186 Professors David Orme Masson (1858–1937), William Alexander Osborne (1873–1967) and Thomas Howell Laby (1880–1946), **Gas mask**, c. 1915, cloth, metal and plastic, 56 × 46 cm irregular. 1979.0042, University of Melbourne Department of Chemistry Collection, University of Melbourne Archives.





Martin



Kellaway



Maclure

## ‘NO BLOODY RESEARCH’: BRINGING SCIENCE TO MILITARY MEDICINE

Until 1914, science played little part in British military medicine. If the South African War (1899–1902) reinforced disease-prevention dictums hammered out in the Crimea a half-century earlier, these mundane lessons of sanitation and hygiene, logistics and discipline sat uncomfortably with traditions of the stoic redcoat and heroic combat surgeon. The refrain ‘no bloody research’ characterised an entrenched anti-scientific attitude among the Royal Army Medical Corps (RAMC) leadership, so common that it earned the military honour of abbreviation to ‘NBR’.<sup>1</sup>

The Great War’s unprecedented scale, however, effected a dual transformation. Facing staggering casualty burdens, the British Empire’s doctors found their ethos of individualised care subsumed by modern military managerialism. Conversely, the massive influx of clinicians into a war machine obsessed with maximising ‘manpower’ transmuted NBR into an embrace of medical innovation. For doctors—who comprised the largest professional group in the Australian Imperial Force (AIF)—wartime service garnered rewards long after the guns fell silent.<sup>2</sup>

### An Australian medical city

Aged 25 in August 1914, Charles Kellaway typified the new generation that changed—and was changed by—wartime medical service. Considered the most brilliant graduate ever to grace the University of Melbourne Medical School, Kellaway was an evangelical Christian who aspired to medical missionary work in India.<sup>3</sup> On 19 November 1915, however, he sought a commission in the Australian Army Medical Corps (AAMC). Arriving at Suez in January 1916, Captain Kellaway joined the No. 1 Australian General Hospital (1AGH), located in the Heliopolis Palace Hotel near Cairo. All AIF medical forces in Egypt had recently come under the control of a hero of the South African War, Major-General Neville Howse, VC, who was determinedly rebuilding the AAMC along more efficient—and more Australian—lines.

Cat. 58 Albert W Savage, **Medical officers of the 3rd Australian General Hospital in a courtyard at the hospital, 1916**, photograph, 15.0 × 21.0 cm.

Back row, left to right: Captain Frederick Lawton, Captain Walter Matthews, **Captain Charles Kellaway**, Captain Quinto Ercole, Honorary Lieutenant Ronald Glen, **Captain Alfred Maclure** [written *McClure*], Lieutenant Jack Hill, Captain Gordon Lowe, Captain Thomas Anderson. Middle row: Lieutenant Frank Marshall, Major Clarence Read [written *Reid*], Captain Roger Steuart, Major Herbert Stewart, Major John Morton, Major Charles Wassell, Lieutenant Henry Hazlett [written *Haslett*], Major Edward Makeham (Chaplain, Church of England). Front row: Major John Lockhart Gibson, **Lieutenant Colonel Charles Martin** [written *Marshall*], Lieutenant Colonel Richard Stawell, Colonel Bernard Newmarch (Officer Commanding), Lieutenant Colonel Charles MacKnight [written *McKnight*], Major William Trethowan, Major Kenneth Smith (Registrar).

Originally planned to accommodate just 520 cases, 1AGH coped with over 2500 wounded and diseased soldiers throughout the medical fiascos that typified the 1915 Gallipoli campaign. Within months, it engulfed numerous nearby premises, including a palace, a casino and the local Luna Park.<sup>4</sup> Combined with another major hospital in Abbassia and several convalescent depots, this sprawling network created a veritable medical city, dwarfing the experience of Australian-trained doctors.

Indeed, when the Dardanelles campaign ended, Australian casualties in and around Cairo exceeded 10 000 men, heightening concerns over sanitation and infections.<sup>5</sup> ‘At no time in its history’, wrote the AAMC’s historian, Graham Butler, ‘was the A.I.F. more closely supervised in this respect’.<sup>6</sup> Alongside rampant venereal disease, ailments assailing diggers included mumps, measles, tonsillitis, bronchitis, pneumonia, influenza, jaundice, colitis, dysentery, enteric fever, typhoid, paratyphoid A and B, and typhus.

A key figure stemming this tide was Lieutenant Colonel Charles Martin. A British-born doctor, Martin emigrated to Australia in 1891, enlivening the physiology departments of the University of Sydney and then Melbourne. He pioneered systematic medical research in Australia, his innovative investigations earning him fellowship of the Royal Society in Australia’s Federation year.<sup>7</sup> Returning home in 1903, Martin became director of London’s Lister Institute of Preventive Medicine, which by 1914 was an internationally recognised centre of excellence in medical science.

From the war’s outset, Martin spearheaded a new approach, thrust into the belly of British military medicine, as science played an escalating role in Imperial military planning.<sup>8</sup> Having developed an anti-tetanus vaccine, he implored the RAMC to adopt it for combat wounds. Martin’s pleas were initially ignored, but the appalling death toll during the Battle of Mons sparked urgent calls for his serum. British demands escalated so rapidly that the solitary horse he had immunised to supply tetanus antibodies was literally bled to death.<sup>9</sup>

Rather than remaining in London, Martin deployed his laboratory to the front. By August 1915 he was attached not to the British Army, but to the AAMC. At 3AGH on the Greek island of Lemnos, Martin investigated diseases afflicting Australian troops at Gallipoli, especially dysentery and typhoid. His painstaking research suggested that paratyphoid A and B—rather than true typhoid fever—largely accounted for the staggering illness rates.

Although combined inoculations were generally shunned, Martin’s team delivered the Australians a multivalent ‘TAB’ vaccine against typhoid and paratyphoid A and B, ahead of any other Imperial forces.<sup>10</sup> As an AAMC regimental medical officer (RMO) in France later attested: ‘every wounded man was given a tetanus anti-toxin and typhoid vaccine, and of all the hundreds and thousands of wounded men ... I never saw a case of either’.<sup>11</sup> Such victories represented not only a triumph of applied research over military bureaucracy, but a step towards the Australian rank and file’s acceptance of medical intervention, leading the charge for post-war mass immunisation campaigns.

On 5 May 1916 Martin enthused to a colleague: ‘I took on a delightfully keen & very able young man named Kellaway’.<sup>12</sup> Kellaway likewise lauded Martin’s infectious enthusiasm, but this wasn’t the only thing that was catching. His brother Frank soon reported that Kellaway was ‘getting on all right with Prof Martin & seems to have recovered from his attack of dysentery’.<sup>13</sup> Indeed, hospital staff in Cairo were as prone to contagions as were AAMC personnel at the front. Nevertheless, Kellaway eagerly learnt from Martin and his collaborator, Australian nursing sister Eleanor Williams. Inspecting 422 stool samples, they focused on differentiating between the amoebic and bacillary dysentery dogging the AIF across the Middle East.<sup>14</sup> A bigger job awaited the team that Martin led to the Sinai when cholera was detected among the soldiery. Their mission was not merely to safeguard the troops, but to protect Egyptian civilians, who had suffered 100 000 deaths during an 1896 cholera epidemic. This Martin achieved by establishing ‘diarrhoea camps’ to contain and comfort affected personnel while their stool samples were analysed.<sup>15</sup>

For those serving through the feverish years of 1915–16, the Australian medical city around Cairo formed a vast laboratory, blending expediency with experiment. Moreover, this milieu saw many significant figures in inter-war Australian medicine—like Kellaway—cementing clinical, personal and political alliances, particularly with Howse, who later became federal minister for health. The investigative spirit of Charles Martin equally infused the subsequent careers of many.

### **Decorated yet devastated**

Front-line duty became another tradition in the AAMC. In February 1917 Kellaway was posted to France, joining the AIF’s 13th Battalion, which was known—after appalling casualties—as ‘the Fighting Thirteenth’. As RMO, Kellaway became the battalion’s general practitioner, combat surgeon and fledgling psychiatrist, while applying bacteriological expertise to the ‘public health’ of his diggers.

If diarrhoeal diseases hallmarked the medical outrages of Gallipoli, trench foot stamped military maladministration in Europe. One man’s feet, documented Sergeant Eric Evans of the 13th Battalion, were ‘swollen up to triple their normal size and have burst open. It is a ghastly sight to see them and the smell is overpowering. Our forces must be in trouble if he remained on the front line in such a condition’.<sup>16</sup> Although platoon commanders policed prevention—including regular foot inspections—treatment passed to the RMO.

Squalor and parasites exacerbated misery and morbidity; each soldier’s skin became a battlefield in miniature. ‘Alas! I am infested with lice’, bemoaned Evans. ‘It’s frightful, but ... like the Huns, they don’t know when to give up’.<sup>17</sup> The battalion’s history likewise invoked the blighted Passchendaele landscape: ‘The foulest smells were constantly arising, lice and rats swarmed in the old enemy dugouts, and the earth oozed diseased-looking pools. It is a medical miracle that whole divisions were not exterminated in such conditions’.<sup>18</sup>

In response, by 1917 sanitation assumed a scientific mantle. Tradition was displaced and education for medical officers became an ongoing cycle as new ideas and techniques were developed, from delousing devices to fly-proof toilet seats.<sup>19</sup> Thus, although diarrhoea certainly attacked the Fighting Thirteenth, gastrointestinal infections were far less prevalent than in the Middle East. However, as the 1918 influenza pandemic confirmed, respiratory conditions circulated freely, especially among gassed troops. Using mobile laboratories—another Martin innovation—pathologists personally attended patients at the front. Although this research-based approach eschewed NBR, military demands for efficiency meant that it was initially accepted, and ultimately expected.<sup>20</sup>

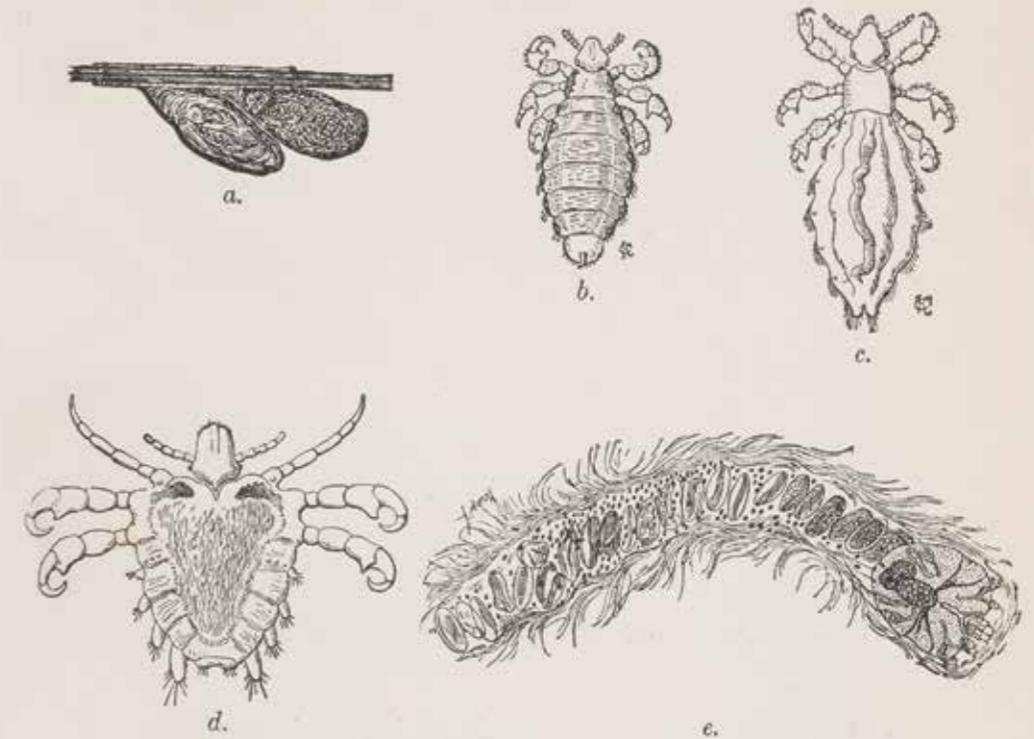
Vast casualty lists created another surprising corollary. Assessment, treatment and rehabilitation became increasingly specialised as patients were categorised for efficient processing by experts.<sup>21</sup> This quest for accuracy forced RMOs like Kellaway to admit the limits of their own knowledge. Uncertainties were passed up the line, marked ‘not yet diagnosed’ or ‘pyrexia of unknown origin’—a non-diagnosis comprising more than 10 per cent of all sickness in France.<sup>22</sup> Substituting holistic care with scientific management, this referral process redefined clinical medicine for many AAMC doctors, accelerating the post-war schism between general practitioners and specialists.

Decorated, yet devastated by his brother’s obliteration at Passchendaele, Kellaway left the front in late 1917, spending the war’s final year staffing a convalescent hospital, then establishing the medical branch of the fledgling Australian Flying Corps.<sup>23</sup> Repatriated in 1919, he became director of Melbourne’s Walter and Eliza Hall Institute from 1923 to 1944, facilitating the research careers of many aspiring Australians. If the war left Kellaway an agnostic, it also instilled a burning new faith in the one certainty that had not deserted him: the healing promise of modern medicine.

### Dr Peter Hobbins

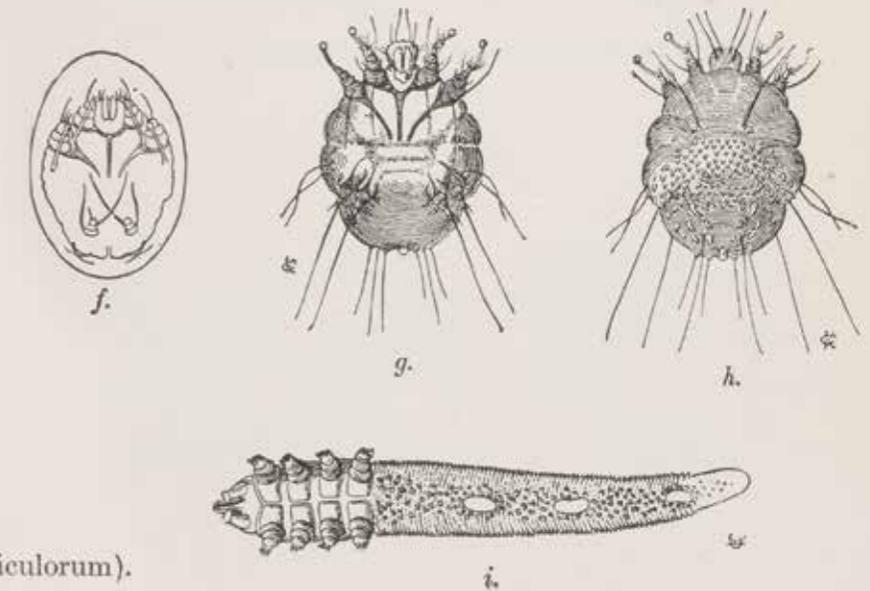
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Cat. 182 Plate 64, Table 64 (position altered), from Franz Mraček, *Atlas and epitome of diseases of the skin, including an epitome of pathology and treatment*, Philadelphia and London: WB Saunders & Co., 1905. Special Collections, Baillieu Library, University of Melbourne.



### PLATE 64.

- a. Nits (louse-eggs, ova), attached to the hair-shaft.
- b. Head-louse.
- c. Body-louse, clothing-louse.
- d. Crab-louse.
- e. A burrow (cuniculus).



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- 9 E Page, *Truant surgeon: The inside story of forty years of Australian political life*, Sydney: Angus & Robertson, 1963, p. 18.
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Cat. 184 'Medical School roll of honor', from *The Speculum: The Journal of the Melbourne Medical Students' Society*, June 1917 (detail, colour altered). Special Collections, Baillieu Library, University of Melbourne.

## INDIVIDUALS, INNOVATION *and* LOSS

THE SPECULUM.

June, 1917.

### Medical School Roll of Honor.

#### Killed.

Lt.-Col. M. L. Williams; Capt. G. C. Mathison; Capt. E. R. Giblin; Capt. F. M. Johnson; Capt. K. Levi; Capt. H. F. Green; Capt. S. J. Campbell; Capt. G. B. Bailey; Capt. M. R. Hughes; Capt. Guy Miller; Capt. O. H. Peters; Capt. H. O. Teague; Capt. E. R. Welch; Lieut. R. H. M. Gibbs; Lieut. J. R. Balfe; Lieut. G. P. Merz; Lieut. E. B. McKay; Sergt. G. W. L. Banks; Corpl. E. R. Whitteron; Pte. G. R. Grimwade; Pte. A. G. Stapleton; Pte. R. A. Reid.

#### Died of Illness.

Capt. E. W. Deane; Capt. J. F. Fairley; Sergt. H. C. Ross; Corpl. R. W. McIndoe.

#### Died on Home Service.

Capt. A. W. H. Langley; Capt. A. C. H. Rothera; Capt. L. A. Wright.

#### Distinctions.

C.B.—Colonel F. D. Bird; Colonel C. S. Ryan. C.M.G.—Lt.-Col. J. W. Barrett; Col. H. C. Maudsley. D.S.O.—Maj. W. E. L. N. Crowther; Lt. F. R. Kerr; Lt.-Col. C. H. W. Hardy; Lt.-Col. T. G. Ross; Lt.-Col. C. G. Shaw.

## WORLD WAR I

World War I (1914–1918) was a global conflict started by Germany and the Austro-Hungarian Empire against the alliance of France, Russia and Britain and its Empire. Many other nations joined the conflict as the war developed.

The war was fought principally in France, Belgium, Russia, Italy, the Balkans and the Middle East. Millions of men engaged in a titanic struggle, in which unprecedented numbers of combatants were killed or wounded, along with civilian casualties.

Australia went to war in 1914 to support Great Britain. Troops were trained in Egypt and on 25 April 1915 invaded the Gallipoli Peninsula, alongside the British, French and New Zealanders. After nine months of stalemate the Allied forces, having achieved only limited success against the Turks, were withdrawn. The Australians were rested and in 1916 were sent to the Western Front in France and Belgium. Here the carnage eclipsed that of Gallipoli and over the next three years Australia suffered the highest percentage casualty rate of any combatant nation. Concurrently, the Australian Light Horse fought in the Sinai, Palestine and Lebanon, defeating the Turks. The Royal Australian Navy served with the Allied fleets on many fronts, while a fledgling air force developed.

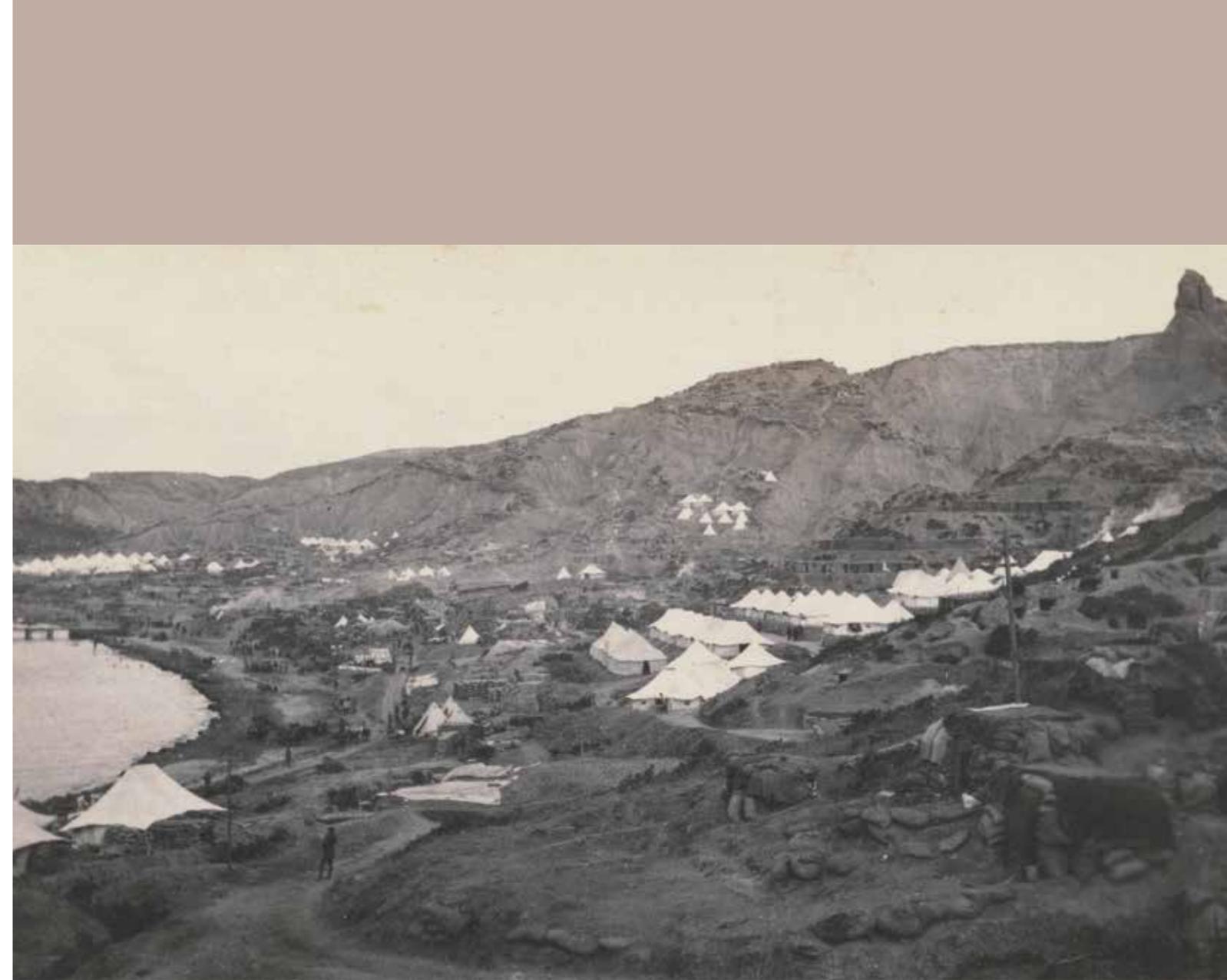
In the first four years of the war, stalemate set in, but after the collapse of the Russian Empire in October 1917 there was a sudden German upsurge. This was countered only by the arrival of forces from the United States of America in 1918. Germany's final thrusts were repulsed in France in April 1918 and after a successful Allied advance an Armistice was finally negotiated on 11 November 1918.

A generation of men had been lost, nations destroyed and empires humbled. In a vain attempt to avoid further global conflict, the League of Nations was formed, but barely 20 years later the lessons of this war were forgotten as a new generation embarked on World War II.

World War I was a tragedy for Australia: of the 320 000 men sent to fight, more than 60 000 died and many returned home scarred by events that would haunt them for the rest of their lives. The nation expressed great pride in their sacrifice and the Anzac tradition soon emerged. A young Australia won a new status among nations, questioned its role in the British Empire and hoped for a lasting peace and prosperity.

### Dr Ross J Bastiaan

Cat. 232 **Tents of a field hospital near Anzac Cove, Gallipoli**, c. 1915, photograph, 7.7 × 12.7 cm, inscribed in ink below image *Hospitals etc. Anzac towards Suvla*. nla.pic-vn6390058, from album of photographs and memorabilia, 1908–18, belonging to WAS Dunlop (1892–1966), National Library of Australia.



## DR HELEN SEXTON'S CASEBOOK

When Helen Sexton's request to enlist with the Royal Army Medical Corps in the first weeks of World War I was denied, she simply opened her own hospital.<sup>1</sup> Her casebook notes were written between July and December 1915 at her Hôpital Australien de Paris, established in a villa on the edge of the Auteuil racetrack.<sup>2</sup> The treatment notes of French soldiers generally included their rank, unit and the battle in which they had been wounded or had become ill. Sometimes their length of service and family details were also recorded; Sexton evidently had a good grasp of the French language. The casebook also indicates that soldiers were moved between different hospitals, sometimes several times, according to the nature and severity of their wounds and complications and the number of beds available. Most commonly, patients were moved between the Hôpital Australien and the Buffon Military Hospital, 4 kilometres away across the Seine.

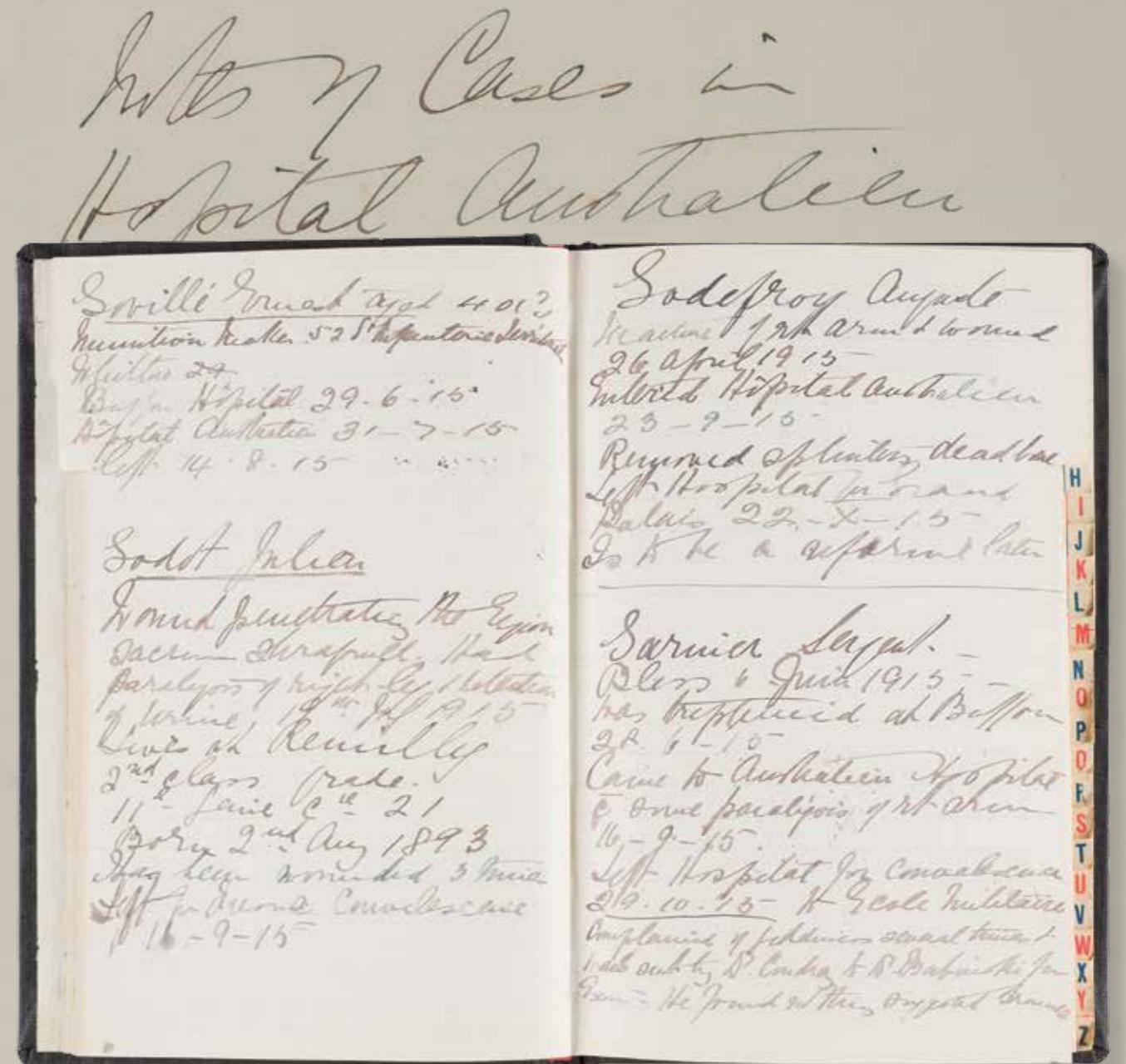
The casebook is a rare window into the complexity and challenges of World War I military medicine. Jean Badaud, admitted on 1 November, required further wound incisions to remove embedded shreds of uniform and half a bomb screw from his leg. Unfortunately no X-ray machine was available that day. After six months in the trenches at Verdun, Edouard Deracuias had contracted typhoid and been admitted to Buffon in May. In July he was transferred to the Hôpital Australien with a post-typhoid complication, alveolar periostitis, causing severe pain in the jaw and requiring immediate incision and removal of dead bone and teeth. Julien Godot had a shrapnel wound to the sacrum joint, causing paralysis in his right leg and urine retention. He was 22 years old and had been wounded three times. Maurice Sergent's toes were gangrenous; four were amputated on his admission on 3 November. Automobile accidents, pneumonia, tuberculosis and syphilis cases were also recorded. The war demanded a comprehensive set of medical skills and Dr Helen Sexton provided hers willingly.

### Dr Heather Sheard

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Cat. 67 Helen HM Sexton (1862-1950), 'Notes of cases in Hôpital Australien de Paris, 46 Rue du Dr Blanche, Auteuil, Paris XVI', 1915, ink and print on paper, 21.0 x 14.5 cm. MHMA2189.1, presented to the Australian Medical Association in 1974 by Dr O'Sullivan of Ballarat, who received it from Roz Watt. Australian Medical Association Archive, Medical History Museum, University of Melbourne.



Hôpital Inauguration  
H. S. - '15 -

## LIEUTENANT (DR) VERA SCANTLEBURY AND CAPTAIN (DR) CLIFF SCANTLEBURY

Dr Vera Scantlebury was appointed as a lieutenant with the Women's Hospital Corps, and began work as an assistant surgeon in April 1917 at the Endell Street Military Hospital, London.<sup>1</sup> This creation of suffragist doctors Louisa Garrett Anderson and Flora Murray was established in a former workhouse. Except for a small army unit of male orderlies, the 180 doctors, nurses and orderlies were all female. Vera spent two years in the operating theatres of the 560-bed hospital, carrying out a wide range of surgical and medical procedures for wounded soldiers. She wrote of 'that beehive of an operating theatre with its hot stifling atmosphere and white gowned & hooded women moving ceaselessly about and stretchers pushed hither and thither and the sweet heavy sickly fumes of chloroform'.<sup>2</sup>

Despite Vera Scantlebury's war service, disapproval of women doctors prevented her from obtaining the honorary consultancy in paediatrics she sought after the war. Instead she went on to a brilliant career in infant welfare, laying the foundation for Victoria's universal system of maternal and child health.<sup>3</sup>

Dr Cliff Scantlebury was 24 when he enlisted in April 1915 as one of 'Kitchener's One Hundred', formed in response to an urgent plea from Britain's secretary of state for more colonial doctors to reinforce an understaffed Royal Army Medical Corps.<sup>4</sup> Cliff had just completed his medical degree in Melbourne and had almost no hospital, clinical or surgical experience, but was immediately accepted.

He served as a regimental medical officer with the No. 13 Stationary Hospital at Boulogne and the 49th Casualty Clearing Station (CCS) in France. In April 1917, for example, his CCS was established at Achiet-le-Grand, north-east of Amiens, after the British had taken the village and established a rail head for receiving wounded soldiers. After the war Cliff gained a fellowship of the Royal College of Surgeons in Edinburgh, finally returning to Melbourne in 1922. An ear, nose and throat specialist, he was inaugural president of the Otolaryngological Society in 1950.<sup>5</sup>

### Dr Heather Sheard

1 H Sheard, 'They will both go to heaven and have crowns and golden harps': Dr Vera Scantlebury Brown and female leadership in a First World War military hospital', in F Davis *et al.* (eds), *Founders, firsts and feminists: Women leaders in twentieth-century Australia*, Custom Book Centre, University of Melbourne, 2011, p. 90.

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5 'Clifford Scantlebury 1890-1976', *Australian Journal of Otolaryngology*, vol. 3, no. 5, January 2000, p. 300.

Cat. 218 **Dr Vera Scantlebury (1889-1946) and her brother Dr George Clifford Scantlebury (1890-1976)**, c. July 1918, photograph in folding leather wallet, 14.0×9.5 cm (image); 17.0×12.5 cm (frame). 2013.0058, gift of Catherine James Bassett, daughter of Vera Scantlebury Brown, Vera Scantlebury Brown Collection, University of Melbourne Archives.



## MARY DE GARIS'S SERBIAN MEDAL

After the war's end, on 14 December 1918 the Serbian government issued Dr Mary Clementina De Garis with a medal, the Order of St Sava, third class, in recognition of her services to the Serbian Army when working as a surgeon for the Scottish Women's Hospitals (SWH) in Ostrovo, Macedonia. De Garis had joined the SWH in February 1917 after the death of her fiancé, Sergeant Colin Thomson. She served as chief medical officer from September 1917 to October 1918.

The medal is made of bright-blue and white enamel and silver in the shape of a cross, with a miniature of the King of Serbia in a central oval. It is attached to a pale-blue and cream striped ribbon.

In January 1921 De Garis attended an 'at home' reception for the Victorian Medical Women's Society in the Melbourne Town Hall. She was aged 40, petite, with brown eyes, olive complexion and white hair, and wore a black evening dress. Around her neck was her medal, which she chose to share with the medical women: a proud symbol of her war years.<sup>1</sup> The accompanying letter reads:

In the name of His Majesty Peter I, By the will of God and the nation, King of Serbia, we, Alexander successor to the throne, upon the recommendation of our Minister of War do decorate with the Order of St. Sava, 3rd class, Miss Mary C. De Garis, Officer commanding the Scottish Women's Hospital at Ostrovo (3rd Field Surgical), having her free from paying the tax Our Minister of War may execute the UKAS, 14th December 1918, Solonika, Signed Alexander, Minister for War (General) Mih Rashitch LBrF3622. The faithfulness of this copy is herewith testified 29/9/1918. [signed] Lt. lad Y Skubitz. I Colonel V

### Dr Ruth Lee

<sup>1</sup> 'Table talk: Women doctors at play: Enjoyable "At home"', *The Argus*, 20 January 1921, p. 26.

Cat. 245 **Order of St Sava (third class) awarded by King Alexander of Serbia to Dr Mary C De Garis (1881–1963)**, September 1918, metal, enamel and ribbon; 5.0×4.0 cm (medal); 12.5×4.0 cm (ribbon). Collection of Kathy M Hancock.



## THE ROLE OF FEMALE DENTISTS IN WORLD WAR I

The precise role that Australian female dentists played in World War I is unclear. Women had only just entered the male-dominated dental profession when the war commenced and their number was staggeringly small. But having chosen to enter such a profession, they were no doubt the type to join the war effort.

Until 1916, five women dentists had graduated from the University of Melbourne and were potentially able to work in the theatre of war and related war efforts. A further two graduated in 1918, presumably after the Armistice.

The first female graduate was Fannie Blanche Innes, who completed her degree in 1907 (she practised as Fannie Gray after her marriage that year). There is documented evidence that Fannie was involved in providing care to military personnel: she is the dentist treating a uniformed soldier in this photograph taken during the 1914–16 period, when the Australian College of Dentistry and the Dental Hospital were offering free treatment to members of the army, with the dental industry supplying materials free of charge. Gray is unlikely to have been the only female dentist providing care in this way.

It is possible that women dentists were close to the front during the Great War. But it is more likely that they were employed to provide care in Australia prior to troop departure, to those posted within Australia or to those returning from service overseas. Of course soldiers returning from active service often required ongoing and complex treatment for horrendous wounds received during the bitter conflict. It is extremely likely that women who graduated after the guns ceased in 1918 were treating veterans, well into the 20th century. One can imagine that the men serving in World War I, or convalescing afterwards, would have appreciated being cared for by female dentists, just as injured and recuperating soldiers showed appreciation to medical nurses.

### Dr Mike Morgan and Dr Mina Borrromeo

Cat. 158 **Dr Fannie Gray, examining a soldier's teeth**, c. 1915, photograph, 57.3 × 47.2 cm. 3115, Henry Forman Atkinson Dental Museum, University of Melbourne.



## HARRY BROOKES ALLEN: PERSONAL AND PROFESSIONAL RESPONSE TO THE WAR

Early in August 1914, Harry Brookes Allen, dean of the Medical School at the University of Melbourne, must have felt that his stars were in alignment. In the New Year's Honours he had been knighted for his services to medicine. In April he led the jubilee to celebrate the 50th anniversary of the school. Then in August the British Association for the Advancement of Science brought a glittering array of international scientists to Melbourne to open its annual conference. In these important events Allen played a leading role.

But it was during the August meeting that the school heard of the declaration of war; Allen was one of the first to begin planning for what he saw as the patriotic duty to support the home country in whatever way possible. The first issues of the Melbourne medical students' magazine *The Speculum* published after the declaration featured his patriotic verse, and he acted quickly to put the faculty on a war footing. Adding to his burden, Allen worked assiduously to set up the Walter and Eliza Hall Institute.

In 1915 it became clear that encouraging students to enlist would severely diminish the ability of the school to provide adequate graduates for the front and for peace afterwards. Allen, along with the deans of medicine in Sydney and Adelaide, wrote to the adjutant-general, requesting that medically trained soldiers be used efficiently and sparingly and that those students who had yet to finish their medical course be returned to Australia. Concurrently, Allen shortened the course and found replacements for the many medical staff who enlisted. A wide-ranging dispute in Egypt relating to accusations of incompetence between JW Springthorpe (lecturer in therapeutics), Stanley Argyle (later premier of Victoria), and James Barrett (later chancellor of the University of Melbourne), with threats of court-martial and legal action, must have caused Allen great anxiety, as each of these doctors was deeply involved in the school. After the Armistice, Allen had to accommodate these tensions and a great increase in student numbers. It must have been a considerably stressful time for him, especially considering his deep attachment to German medical science.

### Dr Ross L Jones

#### References

- Gandevia BH, *The Melbourne medical students, 1862–1942*, Melbourne Medical Society, 1948.  
 Murray-Smith S, 'Barrett, Sir James William (1862–1945)', *Australian dictionary of biography*, vol. 7, Melbourne University Press, 1979.  
 Russell KF, *The Melbourne Medical School: 1862–1962*, Melbourne University Press, 1977.  
*The Speculum: The Journal of the Melbourne Medical Students' Society*, 1914–18.

Cat. 36 Deacon Picture Framers, **4th year 1915**, 1915, photograph, 45.4 × 61.5 cm, signed on back by staff and students. MHM02011.16, gift of Arthur Day, 2008, Medical History Museum, University of Melbourne.



H. B. Allen  
 H. B. Allen  
 Kenneth Bunnell  
 J. B. Fuller  
 Leonard B. Bot.  
 H. B. Trumble  
 J. P. Gannon Hawley.  
 E. E. Jebart.  
 Murray A. Stewart  
 Philip B. Lowell.  
 M. Whittam  
 J. D. Meagher  
 A. P. Lawrence.  
 Alex. P. Sutherland.  
 J. Summers  
 G. V. Hickey  
 F. E. Donovan.  
 H. J. Newmyer  
 D. D. Brownie  
 H. W. Lording.  
 N. McColl  
 R. H. Crisp  
 H. C. Fisher  
 Gordon L. Robertson  
 H. J. Hilford.  
 D. W. Webb  
 R. B. Loochi.  
 J. B. Henderson.  
 A. L. Barnett.  
 A. A. Lang.  
 H. R. Hyatt.  
 A. Raymond Fox.  
 as waterhouse.  
 J. W. Ames. War.  
 J. P. Farrell  
 R. L. Park  
 K. W. Lawrence  
 H. B. Kershaw  
 A. S. Bata  
 C. E. Watson.  
 A. H. Crowley  
 J. R. Anderson.  
 J. P. Morris  
 A. R. Thorne

## WORLD WAR I, MELBOURNE MEDICAL STUDENTS AND THE MEDICAL COURSE

During World War I, University of Melbourne medical students found themselves on the horns of a dilemma. In June 1917 the editorial of *The Speculum*, the journal of the Medical Students' Society, exclaimed:

We have no desire that our school should be a refuge nor our course an alternative to enlisting ... But today, we know not whether we are slackers, fools, or honest patriots. We pray for guidance.<sup>1</sup>

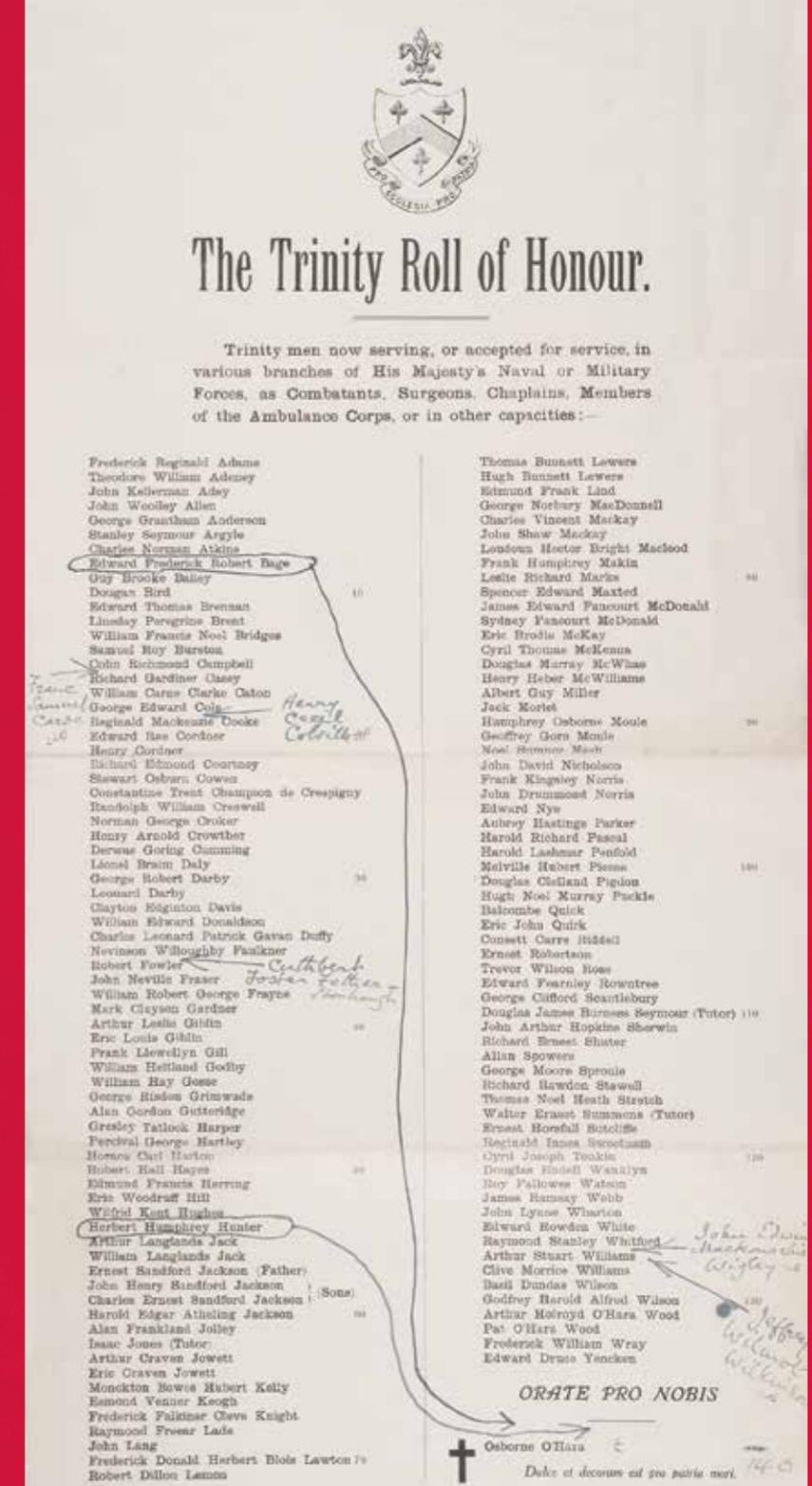
Initially, medical students had enthusiastically enlisted, but it soon became clear that there would be a significant shortage of medical graduates, which sending students to the front could only increase. As a solution, in 1915 a considerable number of those who enlisted were returned to Melbourne to finish their studies. Students were discouraged from enlisting until qualified and changes were made to the medical course, which was shortened to four years in the first instance by an Act of Parliament, but subsequently had to be lengthened by the faculty to four years and two terms, after the General Medical Council of the United Kingdom indicated that it would not recognise the shorter version. The course was also concertained by bringing forward examinations and reducing holidays. With many of the staff heading off to Egypt and France, the course also suffered from disruptions to teaching, which the students complained about.

By 1917 accusations of cowardice were of great concern to many in the student body, as can be seen in the pages of *The Speculum*. Many of these accusations came from those who had seen action but returned to finish the course. This latter group was led by AP Derham, father of a future vice-chancellor of the university. The debate culminated in a fiery meeting, which banned any men over the age of 21 who were eligible for service, but who had not enlisted, from being members of the Medical Students' Society.<sup>2</sup> At the conclusion of the war these tensions continued, as many who had enlisted had forgone the honours examination that gave access to the specialties.<sup>3</sup>

### Dr Ross L Jones

- 1 Editorial, *The Speculum: The Journal of the Medical Students' Society*, June 1917, p. 9.
- 2 Editorial, *The Speculum: The Journal of the Medical Students' Society*, September 1918, p. 10.
- 3 See KF Russell, *The Melbourne Medical School: 1862–1962*, Melbourne University Press, 1977; BH Gandevia, *The Melbourne medical students, 1862–1942*, Melbourne Medical Society, 1948.

Cat. 198 Trinity College, University of Melbourne, *The Trinity roll of honour*, c. 1919, ink on paper, 57.0 × 29.0 cm, annotated by Professor Harry Brookes Allen (1854–1926). Box 3 of 11, folder 3/6, 1976.0006, Sir Harry Brookes Allen Collection, University of Melbourne Archives.



Eric WB Woods (1892–1936) studied medicine from 1911 to 1914 at the University of Melbourne, where he became a renowned Australian Rules footballer.<sup>1</sup> He had not finished his degree when, on 7 November 1914, he enlisted as a private soldier in the 1st Australian Casualty Clearing Station (1ACCS). The 1ACCS landing party at Gallipoli consisted of five officers (all doctors) and 58 men—orderlies and others with no clinical experience; until 10 days before the landing, 1ACCS had trained as an out-of-combat unit.<sup>2</sup>

Anaesthesia at Gallipoli was largely performed by non-commissioned officers and privates with no skills. The only member of 1ACCS with any clinical experience, other than the officer-doctors, was Eric Woods.<sup>3</sup> Lieutenant Colonel Dr John Corbin wrote in 1915: ‘Friday 30th April ... operating table (temporary) fixed ... sent out messages for operative work ... and formed a regular staff with Woods as Anaesthetist’.<sup>4</sup> There is no record of the number or types of cases that Woods anaesthetised in his six weeks at Gallipoli, or of the methods he used. It is not known who gave the first anaesthetic at Gallipoli but Woods was the first so designated.

Woods left Gallipoli for Australia in June 1915 to complete his studies. After graduating, he re-enlisted and returned to Europe as a captain in the Australian Army Medical Corps and regimental medical officer in the 32nd Battalion, 1st Australian Imperial Force. He received the Military Cross at Polygon Wood in 1917, his citation reading:

For conspicuous gallantry and devotion to duty. For several days he worked at his aid post under very heavy shellfire, attending to all stretcher cases in the open with great courage and complete disregard of danger. His untiring organisation and energy saved many lives.

**Dr Michael G Cooper and Dr Gregory Morris**

<sup>1</sup> This article is based on MG Cooper and G Morris, ‘ANZAC doctors at Gallipoli and their contributions to anaesthesia in Australia’, *Anaesthesia and Intensive Care*, vol. 42, History supplement, July 2014, pp. 25–32.

<sup>2</sup> J Pearn, ‘Clearing the beach: Establishing a system of casualty evacuation at Anzac Cove’, *Royal Historical Society of Queensland Journal*, vol. 14, 1990, pp. 121–35.

<sup>3</sup> JH Pearn, ‘The pivot: The First Australian Casualty Clearing Hospital at the Gallipoli beachhead—the first seven days’, *Medical Journal of Australia*, vol. 153, 1990, pp. 612–18.

<sup>4</sup> J Corbin, ‘Experiences with the AAMC at Gallipoli’, *Medical Journal of Australia*, vol. 1, 1916, pp. 111–14.

Cat. 184 Lieutenant Colonel Maudsley (1st Australian General Hospital, Heliopolis, Egypt), ‘Notes from the front’, *The Speculum: The Journal of the Melbourne Medical Students’ Society*, no. 92, May 1915, p. 70. Special Collections, Baillieu Library, University of Melbourne.

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Notes from the Front.

*Lieut-Col. Maudsley* (1st Australian General Hospital, Heliopolis, Egypt) writes:—

Egypt is no place for medical students, because the work they do (and there is plenty of it) could be done equally well by untrained men, and medical students profit little by it. Have met several men who were in present 5th year, and who volunteered, but fear they will get very little medical work—mostly orderly work and very unpleasant, although he considers it to be experience of a kind. There is plenty of illness, and the hospital is filling rapidly. Influenza, laryngitis, bronchitis, broncho and tobar pneumonia in abundance—at Mena House even in greater numbers. Venereal diseases are rife, and we fear that Australia will not get a good name in the records on that score.

## THE MELBOURNE UNIVERSITY RESPIRATOR

The respirator worn by this man photographed at the University of Melbourne in around 1916 was designed at the university by Thomas Howell Laby (professor of natural philosophy 1915–42), David Orme Masson (professor of chemistry 1886–1923) and William Alexander Osborne (professor of physiology 1904–38).<sup>1</sup>

News of gas attacks on the Western Front and of the first battles at Gallipoli was reported in the Melbourne press at the end of April 1915; alarms were raised that gas would be used in the Dardanelles. Meanwhile, Masson had chaired a meeting of university staff on 21 April, at which scientists pledged to offer their services to the government. The Melbourne professors then produced a report on asphyxiating gases and protective measures, proposing a mask consisting of a metal canister made from tobacco tins, filled with soda lime (absorbent against chlorine and bromine), breathing apparatus for inhaling filtered air and exhaling through a valve, a nose clip and motoring goggles.

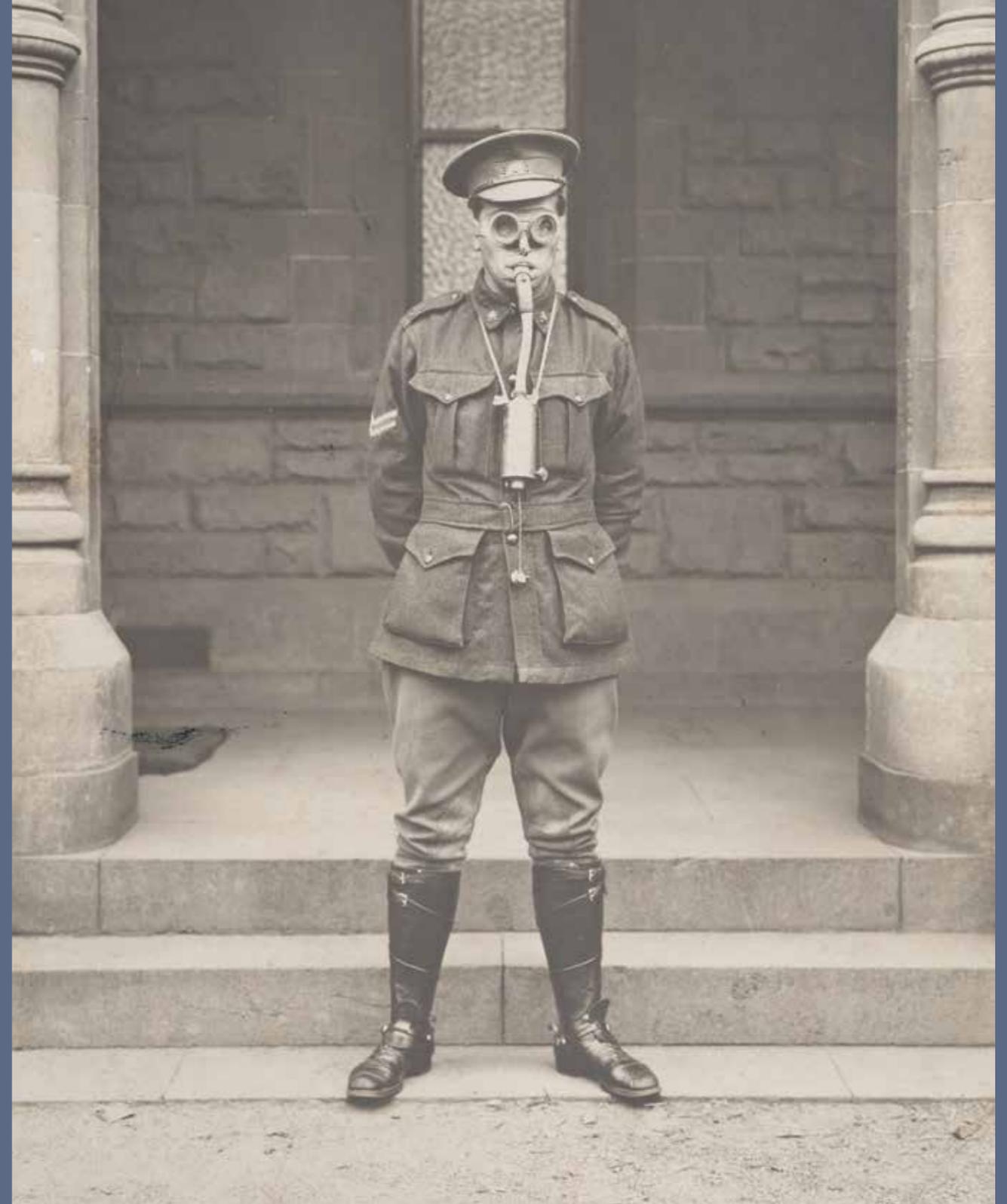
A prototype was tested in a trench dug in the university grounds. The minister for defence approved the university's plan to commission 10 000 sets for Empire troops, at Commonwealth expense. Blueprints and samples were delivered to London in September. The War Office thought the design was good, but noted an improved model being developed by the Royal Army Medical College. Nonetheless 2000 respirator kits were offered to Sydney geologist Edgeworth David when he departed for France with the Mining Corps in January 1916 and in July a sample was tested by Melbourne chemistry graduate Colonel John Anderson, a gas officer in the 2nd Australian Division in France, who reported continuing problems with the new British box respirators. Melbourne science graduate Arthur Lyle Rossiter arrived in Cairo with 6000 respirators in April 1916, but AIF commanders chose not to issue a model different from that used in France. It was decided to scrap the remainder.

The respirator formed part of Melbourne scientists' efforts not only to contribute to the war effort but to boost Australian scientific and technical development and coordination throughout the British Empire.

### Dr Katrina Dean

<sup>1</sup> For further reading, including notes, see K Dean, 'Demonstrating the university respirator', *Australian Journal of Politics and History*, vol. 53, no. 3, September 2007, pp. 392–406; KJ Dean, 'Settler physics in Australia and Cambridge, 1850–1950', PhD Thesis, University of Cambridge, 2005, pp. 187–223.

Cat. 185 **Soldier wearing respirator**, c. 1916, photograph, 21.0 × 15.0 cm. UMA/I/1777, University of Melbourne Photographs Collection, University of Melbourne Archives.



## THOMAS'S SPLINT

Four major advances in the medical care of casualties in World War I led to markedly improved survival during the course of the war: the development of blood transfusion; field hospitals being brought nearer to the front line; X-rays being used in the management of the wounded; and Thomas's splint for fractures of the leg.

Thomas's splint relieved much of the patient's pain, but also reduced blood loss and greatly facilitated evacuation to a field hospital. Early in the war, 80 per cent of soldiers with a fractured femur died; by war's end, 80 per cent survived.

This splint was named after Welsh-born Hugh Owen Thomas (1834–1891), the pioneer of orthopaedic surgery in Britain. His father, a bone-setter who had been persecuted by the medical community, ensured that all his five sons became doctors. Hugh Owen Thomas initially worked with his father but later went into practice on his own in Liverpool.

Thomas believed that resting the affected bone was essential in healing fractures and bone disease, and he developed splints for many parts of the body. Thomas's splint was originally designed for tuberculosis of the knee and fractures of the leg. A nephew, Robert (later Sir Robert) Jones, worked with Thomas for some time; indeed Thomas, seeing the lad's potential, paid his expenses through medical school. After graduation, Jones worked with his uncle in his clinic, and continued there following Thomas's death in 1891.

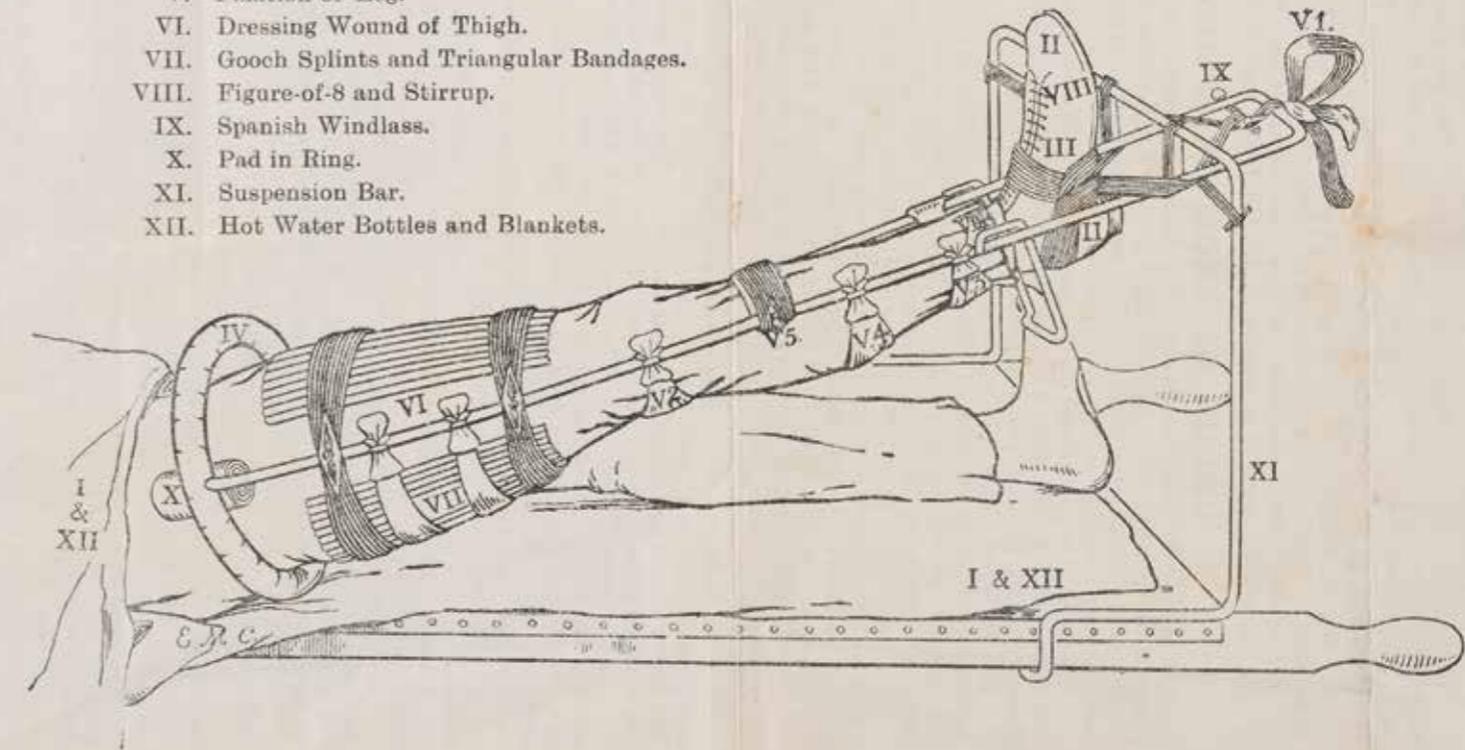
In 1893, Jones convened a meeting in London, which resulted in the formation of the British Orthopaedic Society, and in 1913 he served as president of the orthopaedic section of the International Medical Congress held in London. At the outbreak of World War I, Jones was appointed inspector of military orthopaedics, and Hammersmith became the model for both British and American military orthopaedic hospitals. It was his advocacy of Thomas's splint for the initial treatment of femoral fractures that resulted in the dramatic reduction in morbidity and mortality from this common injury.

### Dr Laurence Simpson

Cat. 128 Army Printing and Stationery Services (France), *Instructions for front line application of Thomas's splint*, 1917, print on paper, 34.3 × 21.6 cm. MHMA1684.12, Australian Medical Association Archive, Medical History Museum, University of Melbourne.

## FRONT LINE APPLICATION OF THOMAS'S SPLINT.

- I. Warming (Réchauffment).
- II. Extension.
- III. Modified Clove-Hitch over Boot.
- IV. Splint.
- V. Fixation of Leg.
- VI. Dressing Wound of Thigh.
- VII. Gooch Splints and Triangular Bandages.
- VIII. Figure-of-8 and Stirrup.
- IX. Spanish Windlass.
- X. Pad in Ring.
- XI. Suspension Bar.
- XII. Hot Water Bottles and Blankets.



PRINTED IN FRANCE BY ARMY PRINTING AND STATIONERY SERVICES

PRESS A—

## DARYL LINDSAY

Daryl Lindsay (1889–1976) was in his late twenties when he made this watercolour portrait of Private W Parker in 1918. At the time he was engaged as an artist, at the rank of honorary lieutenant, to record the work of the surgeons, dentists and doctors treating the traumatic injuries of soldiers in the Australian section for wounds to the face and jaw at the Queen's Hospital, Sidcup, Kent.

The watercolour shows the young soldier in profile, with a deep scar running from the corner of his mouth, across the side of his face. At the time of the sitting the soldier was most likely nearing the end of his treatment. Other portraits made by Lindsay depict soldiers at earlier stages, with gaping wounds, particularly around the mouth, jaw and nose, often the consequence of trench warfare or inadequate helmets that failed to protect the face. Other images made by Lindsay at Sidcup are rare recordings of dental treatments—the splints and appliances—that helped restore speech, and function to areas of the face where there was loss.

The portraits serve a different role from that of photographs that were also taken of the soldiers; they present a nuanced colour record, which poignantly and subtly reveals the colour of tissue, skin or wound (and the mood of the sitter). In contrast to traditional portraiture, the subjects of these works—the many soldiers undergoing facial reconstruction—ironically turn portraiture 'on its head'. These portraits do not commemorate a leader, dignitary, aristocrat or monarch; rather, they are treatment records of ground-breaking developments in facial reconstruction, to which the conventions of portraiture have been applied.<sup>1</sup>

As a record of treatment the watercolours excel, but for today's viewer there is a greater evocation, which goes beyond verisimilitude and the faithful recording of nature. Portraits like Daryl Lindsay's watercolour of Private Parker, or the pastel works of his older colleague Henry Tonks (1852–1937), restore dignity to the subject, and bring home to the viewer, in a very intimate and profoundly psychological way, the traumas of war.

### Louise Murray

<sup>1</sup> S Biernoff, 'The portraiture of loss', *Ampersand Magazine*, no. 2, Autumn 2010.

Cat. 235 (Ernest) Daryl Lindsay (Australian, 1889–1976), [Se96/202], **18. Pte. Parker W**, [25 March] 1918, watercolour and ink on paper, 29.1 × 22.3 cm. Royal Australasian College of Surgeons.

18.



Pre.PARKER W.

25-3-18

## MAJOR KENNETH RUSSELL

The laboratory techniques and treatment methods developed during World War I by the Australian dental surgeon Major Kenneth Russell (1885–1945), both in France and at the Queen's Hospital at Sidcup in England, so impressed the Australian government that it commissioned him to instruct dental officers from the major states in his methods. This involved preparing sets of casts, complete with splints and attachments as had been fitted to his more unusual patients. The example shown on p. 31, bottom left and right (cat. 155), is of articulated casts of an upper and lower jaw, with splints that can be locked together with screws when in correct occlusion to immobilise them, but leaving spaces for the patient to consume liquids or semi-solid food. The lower splint has an attachment for securing it to a head-cap, to give additional support to an unattached fragment of bone. The splints are cast in shell form, which requires a minimum amount of cement to secure and makes removal easier when the treatment is changed or completed.

At the outbreak of hostilities in 1914, the only dental services available to Imperial forces were provided by a unit or regimental medical officer, and were limited to extractions without local anaesthetic. For this task the medical officer was issued with a leather roll containing up to six pairs of extracting forceps, and troops were fortunate if the doctor had any previous instruction or experience in this form of treatment. According to manufacturers' catalogues of the period, these instruments were all that was considered necessary for a dentist in private practice when setting up a country branch practice.

Portable dental chairs were also available; when dismantled for transport these could be packed into a stout wooden box (as shown here) supporting the footrest. The first dental chairs made available to dentists in the armed forces may have been catalogue items such as this example made by the S.S. White Dental Manufacturing Company of America. Built of steel and cast iron with stout carpet material covering the seat and backrest, the headrest and back fully adjustable, it requires two men to lift when packed in the box. Transporting it over any distance would have required at least a horse-drawn vehicle.

### Professor Emeritus Henry F Atkinson

Cat. 159 S.S. White Dental Manufacturing Company (USA), **Portable dental chair**, c. 1910–30, wool, cast iron, nickel-plated steel and wood; 120 × 69 × 150 cm (irregular). 1538, Australian College of Dentistry, Henry Forman Atkinson Dental Museum, University of Melbourne.



## HERBERT 'GINGER' HUNTER

Herbert Humphreys Hunter was born in Bendigo on 18 November 1881, one of 10 children of George Frederick Hunter (a civil engineer and brewery owner), and has wife Elizabeth (née Humphreys).

Hunter was a champion athlete in sprinting, hurdles and long jump. He won at all levels of competition, including the 100 yards in the 1904 Australasian Championships. At Melbourne Grammar School he broke the World Schoolboys' running broad jump record and played for Essendon in the Victorian Football League. He originated the Bendigo Hare and Hounds Athletic Club and organised sporting events in Bendigo and later in Egypt. He won a double blue in athletics and football at the University of Melbourne while living at Trinity College.

Hunter studied at the Australian College of Dentistry, graduating as an LDS Victoria and obtaining the MACD Certificate. Gaining a Doctor of Dental Surgery degree at the University of Pennsylvania, and being athletics and boxing champion, he was admitted to the Delta Sigma Delta fraternity.

Hunter practised dentistry in Bendigo from 1908. In April that year he joined the 67th Bendigo Infantry Battalion Citizens' Military Force. He enlisted on 29 August 1914 in the 7th Battalion of the 1st Australian Imperial Force, being appointed a captain by Lieutenant Colonel HG 'Pompey' Elliot. He left Australia in the transport *Hororata* on 19 October for training at Mena Camp, Egypt.

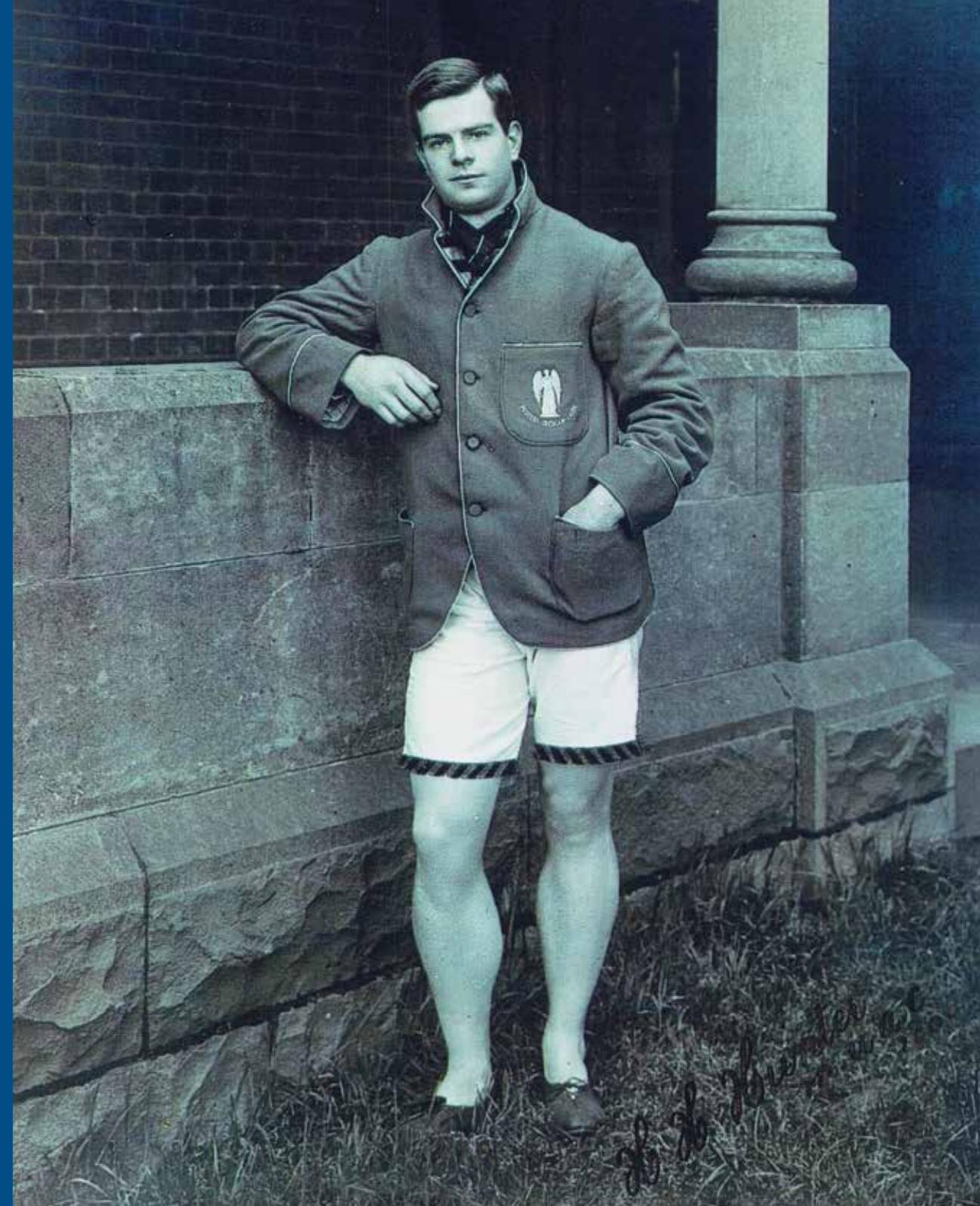
Captain Hunter led his men in the first landing on Gallipoli. On 8 May in the assault of Krithia he received a flesh wound in the heel. He was carried back for wound dressing, but was struck in the head by a stray bullet while lying on the ground. He died instantly.

Powerful of frame, a brilliant scholar, Hunter gave his life for his country. His body was never found. He lies among Australia's noble dead, and his name is commemorated at the Helles memorial.

The *HH Hunter memorial shield* was presented by Hunter's friends and fellow athletes to the Victorian Amateur Athletic Association in 1920. Carved by Robert Prenzel in Australian blackwood, the composition has Australian flora surrounding a smaller beaten-copper shield with embossed text, containing a plywood book in which the name of each year's winning club is inscribed. The upper part depicts Hunter racing against his Sydney rival and companion, Nigel Barker.

### Dr Neville Regan

Cat. 240 **Herbert 'Ginger' Hunter (1881–1915)**, 1904, photograph, 20.0 × 15.0 cm. Dr Bill Armstrong Collection.



## RUSSELL AND RECONSTRUCTION: A SNAPSHOT OF SIDCUP

Harold Gillies (1882–1960), the New Zealand-born surgeon who pioneered facial reconstruction for British and Dominion troops during the Great War, once wrote that reconstruction must always be planned ‘from within outwards’.<sup>1</sup> While he meant that the skeletal structure of the face had to be repaired before any soft tissue work could be done, the same approach was taken in the holistic treatment of the men at the Queen’s Hospital, Sidcup. Surgeons were well aware that dealing with a patient’s inner emotional and mental strain was paramount to outward physical recovery.

The result of this approach can be seen in Dyson’s pencil drawing. The drawing is not about the physical reconstruction; the patient’s damaged face is not even shown. Instead, the body language—one leg casually draped over the other—suggests someone who is relatively relaxed. Dental surgeon Kenneth Russell, it appears, was a man who could put his patients at ease. Many patients at the Queen’s Hospital wrote of the friendly medical staff.<sup>2</sup>

The drawing also alludes to the rehabilitative nature of the Queen’s Hospital, with the seated figures in the background possibly being patients who were assisting in the dental workshop during their period of convalescence. This was a way for patients to feel useful and productive while undergoing what could be months, even years, of treatment.<sup>3</sup>

### Kerry Neale

1 HD Gillies, *Plastic surgery of the face: Based on selected cases of war injuries of the face including burns*, London: Gower Medical, 1920, p. 12.

2 R Pound, *Gillies, surgeon extraordinary: A biography*, London: Michael Joseph, p. 58.

3 The Queen’s Hospital, Sidcup: News clippings, 1917–1930, H02/QM/Y/05, London Metropolitan Archives.



Cat. 244 William Henry (Will) Dyson (Australian, 1880–1938), **Major Kenneth Russell (1885–1945) attending to a patient at Queen’s Hospital, Sidcup, Kent, during World War I**, c. 1917, pencil on paper, 21.0 × 29.0 cm. Courtesy Mary and Ken Russell, the Russell Collection.

## WAR WOUNDS

An arm reveals a shrapnel wound, a lung carries telltale signs of mustard gas poisoning, and a spleen is sectioned to show a bacterial infection. These are the remains of World War I soldiers, pedagogical specimens that are a poignant reminder of the severe trauma inflicted by war. They were once part of a much larger Australian collection of pathology specimens sourced in 1918 by William Keith Inglis (1888–1960) to illustrate the effects of modern warfare on the human body. Inglis was a pathologist at the Australian General Hospitals in Abbeville and Boulogne, who performed numerous army post-mortem examinations. Under the guidance of Colonel James Newland (1881–1949), a policy was established to ensure the efficient collection and preservation of specimens. It stated:

all specimens must be selected with the definite object of their utilisation for teaching purposes, and of illustrating war conditions, with a view to education and action and not only for spectacular interest: and that all specimens illustrative of each important condition should be forthcoming for each of the three medical schools in existence.<sup>1</sup>

The specimens were first sent to be preserved at the Royal College of Surgeons in London before embarking on the long voyage back to Australia in 1919. Major breakthroughs in the preservation of human tissue in the 1890s saw the introduction of formaldehyde-based fixation of tissue. This made redundant the use of flammable solutions such as ethanol, and allowed for specimens to potentially last indefinitely.

The University of Melbourne received more than 200 specimens, which were carefully preserved in glass cylindrical jars by Harry Brookes Allen (1854–1926), renowned pathologist and professor of descriptive and surgical anatomy and pathology. Each jar was completed with a handwritten label, detailing the condition and the medical officer responsible for the specimen's collection. The specimens were, and remain today, integral to education on the pathological manifestations of war.

### Dr Ryan Jefferies

<sup>1</sup> AG Butler, *The Australian Army Medical Services in the war of 1914–1918*, vol. 3: *Special problems and services*, Canberra: Australian War Memorial, 1942, p. 283.

Cat. 169 **Spleen specimen, infection by *Clostridium perfringens***, 1918, human tissue and glass, 23.5 × 12.8 cm diameter. 531-007366.

Cat. 167 **Bronchus specimen, mustard gas poisoning**, 1918, human tissue and glass, 9.0 × 7.5 cm diameter. 531-003784.

Cat. 171 **Left upper limb specimen, shell wound**, 1916, human tissue and glass, 32.0 × 16.5 cm diameter. 531-007365. Harry Brookes Allen Museum of Anatomy and Pathology, University of Melbourne.



## SURGERY AT AUSTRALIAN DENTAL HOSPITAL, EGYPT

In 1914 and early 1915, Australian troops were deployed to Egypt without any dental services provided by the Australian government. The result of this lack of preparation became obvious when, by July 1915, three months after the Gallipoli landing, 600 soldiers from the 1st Division, Australian Imperial Force, had to be evacuated back to Lemnos and Egypt due to dental pathology. In July 1915, six newly recruited army dental officers, one from each military district, were sent to the Middle East to begin the task of reducing this significant manpower loss.<sup>1</sup> By May 1916, some 174 dental officers and 356 soldiers were serving in the Australian Army Medical Corps (Dental) in the Middle East and Europe.

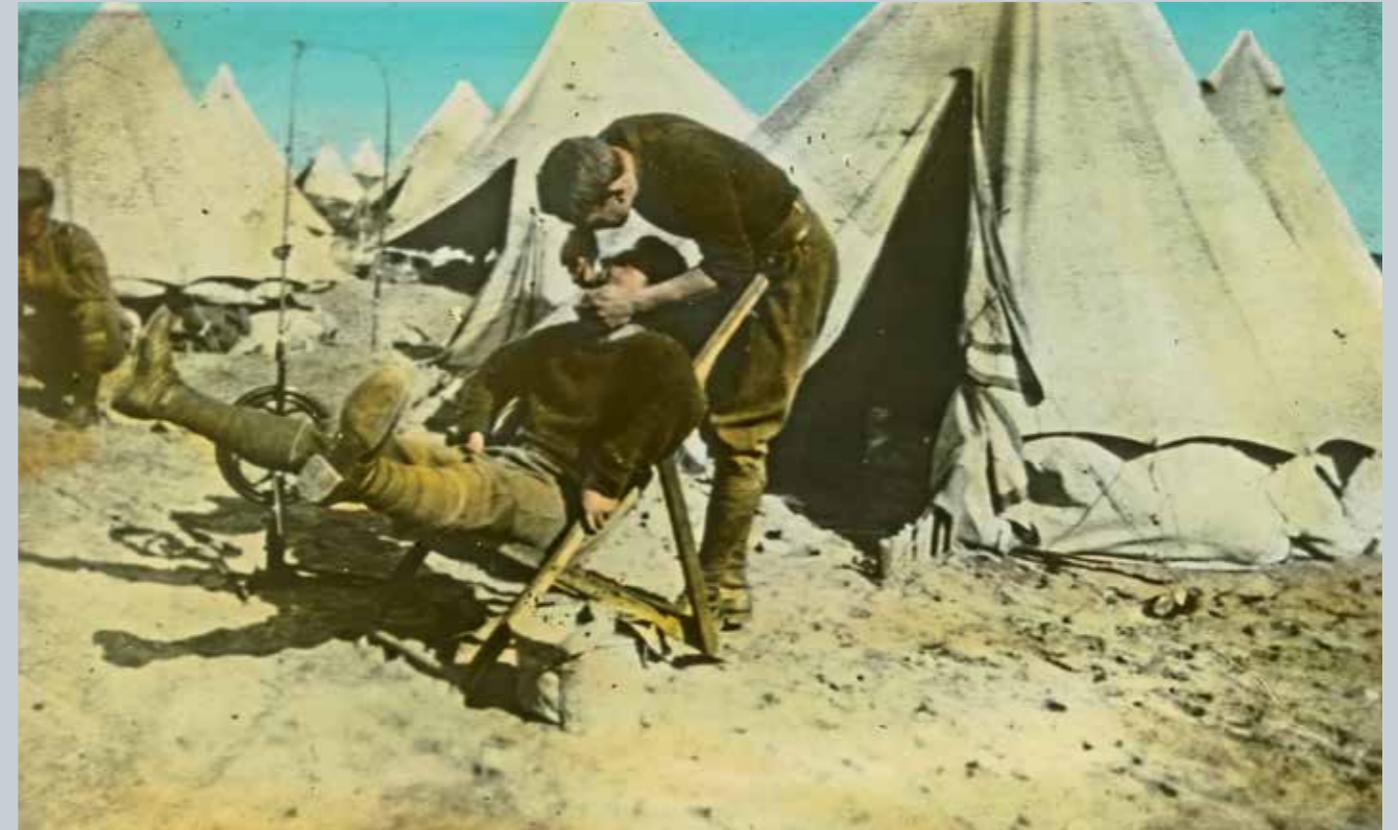
Army dental personnel served in two types of units. The first type were fixed dental clinics and dental hospitals, which had the task of preparing the troops before they went to the battlefield, to prevent dental casualties. The second type were dental units under canvas with portable equipment, close to the front line, often attached to field ambulances. These units treated dental casualties in order to minimise the time these soldiers were away from their units.

One hundred years later, the lessons learnt at Gallipoli are still reflected in Australian Army health policies of deploying only dentally fit troops to areas of operations and the deployment of supporting field dental sections close to these troops.

### Colonel Robert Adams

<sup>1</sup> M Hopcraft and R Bastiaan, 'A brief history of the RAADC', *Cadmus: The Magazine of the Royal Australian Army Dental Corps*, vol. 22, 2003, p. 32.

<sup>2</sup> V Bird, 'Director's message', *Cadmus: The Magazine of the Royal Australian Army Dental Corps*, vol. 12, 1993, p. 5.



Cat. 239 **Soldier receiving dental treatment, Mena Camp, Egypt**, 1915, photographic print from glass lantern slide. H83.103/149, gift of RP Bennett, 1983, TP Bennett Collection, State Library of Victoria.

## ROBERT MURRAY GILLIES

My father, Robert Murray Gillies (1897–1989), was a man of many talents, which showed at an early age. When only 14 (and still at school) he won the seniors Victorian shooting championship and then went on to come second in the King's Cup.

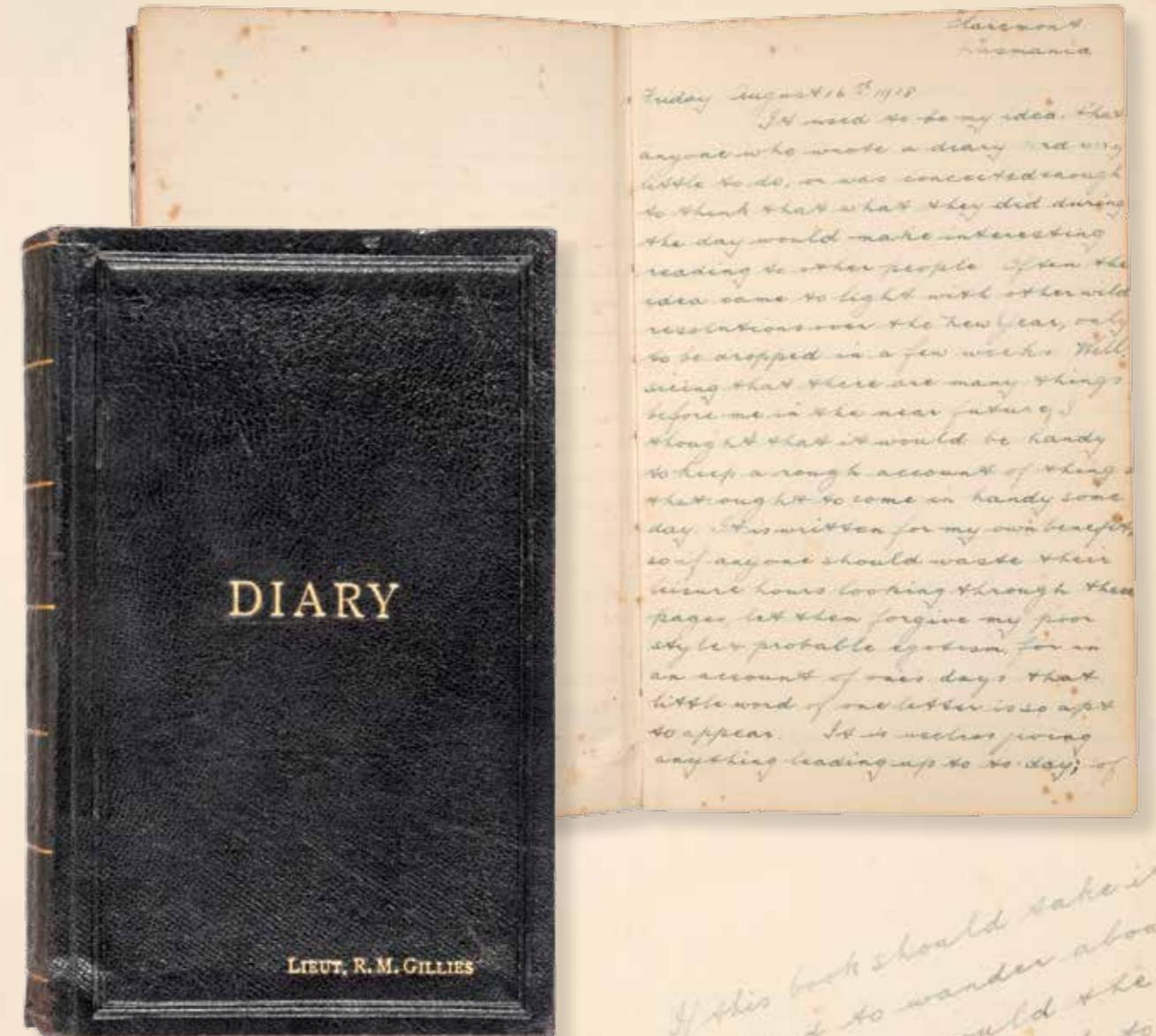
At 15 he entered dentistry, graduating at 19 as dux. As he could not practise dentistry in Victoria until the age of 21, he went to Tasmania to practise. From there he enlisted as a private in the army, with a desire to go overseas as quickly as possible. When the army found out about his professional training, he was told to enlist as a dentist, which he did and was then commissioned as a lieutenant. (In World War II dentists would be commissioned as captains). Around this time he started his diary, which he wrote in an excellent hand and continued throughout his life, only making a mistake when he was near death at the age of 92.

My father's diary includes a textbook description of Spanish influenza and his survival. As a global epidemic, Spanish flu claimed more lives than all the casualties of World War I. He describes talking to his patients on the ship *HMAT Bakara* in the morning and burying them in the evening. Eventually the flu killed the captain of the ship and most of the crew. My father also caught the virus; he was put ashore in Sierra Leone and left in the morgue to die. Fortunately for me he woke up and decided to live.

He joined the West African Rifles while recovering, and was eventually repatriated to hospital in Australia to recover further. Not satisfied with dental treatment in Australia, he enrolled in the Pennsylvania Dental School in the United States. He graduated as dux and also produced the student magazine; this included his sketches of the teachers and students, which I still have. In Victoria he became the second president of the Victorian Dental Association, then went on to the Dental Board of Victoria, on which he continued to serve for some 30 years. During that time he was influential in writing many of the early rules and regulations for the profession.

### Dr R Ian Gillies

Cat. 243 Lieutenant Robert Murray Gillies (1897–1989), **Diary**, 1918–21, pen and ink on paper in leatherette cover, 20.0 × 13.5 cm. Courtesy Dr R Ian Gillies.



If this book should wander  
into its head to wander about  
of its own accord, would the  
finder please send it back to  
"Barrington Ave  
New  
Melbourne

## SHRAPNEL VALLEY: THE GALLIPOLI LANDING, 25 APRIL 1915

About 1.30 we embarked in boats, which were towed by the battleships' picket boats ... There were only a few casualties in our boat—the machine gun did not get into it—but there were more in others ... there was no time wasted in getting out of the boats and across the beach ... across to the shelter of the bank, but even there we found we were not safe, as they were enfilading us from a bit of a cape ... so we had to crawl around until we found a little depression in the bank ... all this was a matter of seconds ... More men were coming all the time, and following the others up.

Suddenly the shrapnel started; they were firing from a battery on Kaba Tepe, a cape about 1½ miles south of us, and at once the battleships opened in return, and the din was tremendous; there seemed to be shrapnel bursting over and all around the boats. I was busy dressing all kinds of bullet wounds ...

Suddenly there was a cheer from the top of the hill—they had captured the machine gun and driven the Turks out of their trenches. All this time there wasn't a rifle fired by our side; coming ashore, the rifles were not even loaded. I followed them up, dressing the wounded, and leaving them to be picked up by bearers ... The whole country is covered with low scrub, and in the rush forward lots of Turks lay down under bushes and sniped our men after they had passed ... There were a lot of wounded Turks ... they had no field dressings like our men carry. I gave some morphia to a few of them, but most of them spat it out ... On the plateau I met my AMC sergeant ... We fixed a couple of shattered legs and went down into the big gully ...

The following five days continuous fighting ... Every time that the Turks amassed in any spot the observers would pass along the word by field telephone to the ships, and shells would be on them ... there was shrapnel bursting continuously over our trenches ... The greatest trouble we had in our part was the evacuation of wounded. We could do practically nothing till dark, and even then there were snipers about. Many stretcher-bearers were wounded, and, to make matters worse, all day and part of the night the valley was swept by shrapnel—in fact, the valley was called Shrapnel Valley.<sup>1</sup>

### Captain Edward Thomas Brennan (1887–1953)

<sup>1</sup> From Captain ET Brennan, AAMC, '16th May, 1915, Gallipoli Peninsula', *The Speculum: The Journal of the Melbourne Medical Students' Society*, no. 93, July 1915, pp. 150–9, Special Collections, Baillieu Library, University of Melbourne.

Cat. 223 Surgeon General Charles Snodgrass Ryan (1853–1926), **Casualty clearing station**, May 1915, photograph. P0797.001, Australian War Memorial.



## A COMPASSIONATE EYE

At the outbreak of World War I, Dr Charles Snodgrass Ryan, aged 60, was appointed assistant director of medical services in the Australian Imperial Force. He sailed for Egypt in October 1914 and later landed at Gallipoli with Lieutenant General William Birdwood's Anzac forces.

Ryan (1853–1926) had studied medicine at the University of Melbourne (1870–72) and the University of Edinburgh (MB, CM, 1875). While in Europe as a young graduate he was recruited by the Turkish government, serving from mid-1876 as a surgeon in the Turko-Serbian War and then in the Russo-Turkish Campaign (1877–78). He was in the Siege of Plevna (Pleven, Bulgaria) and became known to the Turks as 'Plevna' Ryan because of his running to the front line to treat the fallen. Later he became a Russian prisoner of war at Erzeroum in Turkish Armenia. He was decorated with the Turkish orders of the Osmanieh and the Medjidie and the War Medal.<sup>1</sup> These were the medals he wore at Gallipoli.

A distinguished doctor and committed amateur photographer, Ryan conveyed, through his images of the Gallipoli landing, respect and compassion for all the participants in that conflict. His photographs show the daunting steepness of the terrain, the makeshift facilities dug into the hills, and soldiers balancing precariously on sandbags in trenches. Ryan captured the bustling of soldiers organising supplies on the beach and the intense look on the faces of officers discussing the strategy for the day. Of his images of Gallipoli, most controversial were those of 'fallen' soldiers.

On 19 May 1915 the Turks mounted a major attack at Anzac Cove. Over 7000 Turks were wounded and almost 3000 killed. So great was the stench from the rotting corpses that a truce was arranged for 24 May, to allow both sides to bury their dead.<sup>2</sup> While Ryan was documenting these burials, a Turkish officer recognised his Plevna medal and embraced him. Ryan replied: 'I was a Turk then'.<sup>3</sup>

These photographs contravened the terms of the Armistice agreement. Yet Ryan's compassionate eye had revealed mutual respect between foes.

### Dr Jacqueline Healy

1 FMC Forster, 'Ryan, Sir Charles Snodgrass (1853–1926)', *Australian dictionary of biography*, vol. 11, Melbourne University Press, 1988.

2 *Gallipoli and the Anzacs: Historical background: Gallipoli, 25 April 1915 – 8 January 1916*, Australian Government Department of Veterans' Affairs, [www.anzacsite.gov.au/2visiting/tgallipoli.html](http://www.anzacsite.gov.au/2visiting/tgallipoli.html).

3 M Casey, 'Charles Snodgrass Ryan', *The Medical Journal of Australia*, 19 September 1959, p. 391.

Cat. 222 Surgeon General Charles Snodgrass Ryan (1853–1926), **Australian burial parties burying Australian and Turkish dead at either Quinn's Post or Chessboard, during the temporary armistice**, 24 May 1915, photograph. P02649.025, Australian War Memorial.



## JUST A DIGGER

Arthur Poole Lawrence (1893–1966) was appointed captain in the Australian Army Medical Corps (AAMC) immediately after graduating from Melbourne Medical School in November 1916. He married Amy Moxon Beck shortly before embarking for England on 23 February 1917.

HMAT *Ballarat* was torpedoed in the English Channel by a German submarine on 25 April 1917. Lawrence was one of the last to leave the sinking ship, after ensuring his men were safely evacuated. By October he was part of the 2nd Australian Division, 6th Field Ambulance, and was understood by his family to have been serving in Ypres during the infamous Passchendaele campaign. By May 1918 the shocking conditions had made him seriously ill with trench fever, though he rejoined the 6th Field Ambulance in July.<sup>1</sup>

Early in October 1918 Australian troops captured Montbrehain village, east of Péronne, site of the Australian Corps' final battle on the Western Front. They took 400 prisoners and held the position against intense German counter-attacks.<sup>2</sup> Australian casualties were high: 30 officers and 400 soldiers. Lawrence was awarded a Military Cross, having 'displayed great gallantry and able leadership on 3rd, 4th, and 5th October, he maintained touch with the regimental aid posts in spite of heavy shell fire, and his genius for selecting routes and loading posts resulted in very rapid evacuation of wounded'.<sup>3</sup>

Lawrence's heroism was to become iconic. Following the Armistice, the French government commissioned artist Yvonne Rosetti to portray a soldier from each Allied country, to be exhibited in the Louvre. Lawrence was depicted as a digger in a slouch hat, a symbol of the camaraderie of the battlefield.

### John Lawrence

**Acknowledgement:** I am particularly in debt in preparing this text to Wing Commander John Williamson, AM, OStJ, RAAF Res (ret.), for his research on Captain Lawrence.

- 1 J Williamson, 'Group Captain Arthur Poole Lawrence MC: A life of service to Australia – AIF World War I and Medical RAAF', *Aerogram*, September 2011, pp. 6–9.
- 2 J Laffin, 'Montbrehain', in *A guide to Australian battlefields of the Western Front 1916–1918* (3rd edn), Sydney: Kangaroo Press and the Australian War Memorial, 1999, pp. 156–7.
- 3 Quoted in Williamson, 'Group Captain Arthur Poole Lawrence MC'.

Cat. 247 Yvonne Rosetti (French), **Captain Arthur Poole Lawrence (1893–1966)**, 1919, graphite and crayon on paper, 41.5×30.0 cm (image); 59.0×46.5×3.5 cm (frame), signed *Yvonne Rosetti, / 1919 / [Charleroi]*. Collection of Nicholas Anderson, grandson of Captain Arthur Poole Lawrence.



## MEDICAL CARE AT THE FRONT LINE

Basil Walter Cohen, MB, was appointed to the Royal Army Medical Corps in ‘the Rank of Lieutenant in Our Land Forces’ from ‘the sixth day of April 1915’. His commission was signed on 25 May 1915, and he would have received the document (see cat. 114, p. 161) when he arrived in England. During World War I, medical practitioners were immediately commissioned as officers—lieutenants or captains—and surgeons were appointed to the rank of major.

Cohen had graduated from the University of Melbourne in 1910 and was practising in Mansfield when he volunteered for the Australian Army Medical Corps. He disembarked in April 1915. Like many other Australian doctors, Cohen received some training in England before being sent to serve on the Western Front in July 1915. Cohen’s papers on the evacuation of the wounded were given to the Australian Medical Association Archive, now in the Medical History Museum.

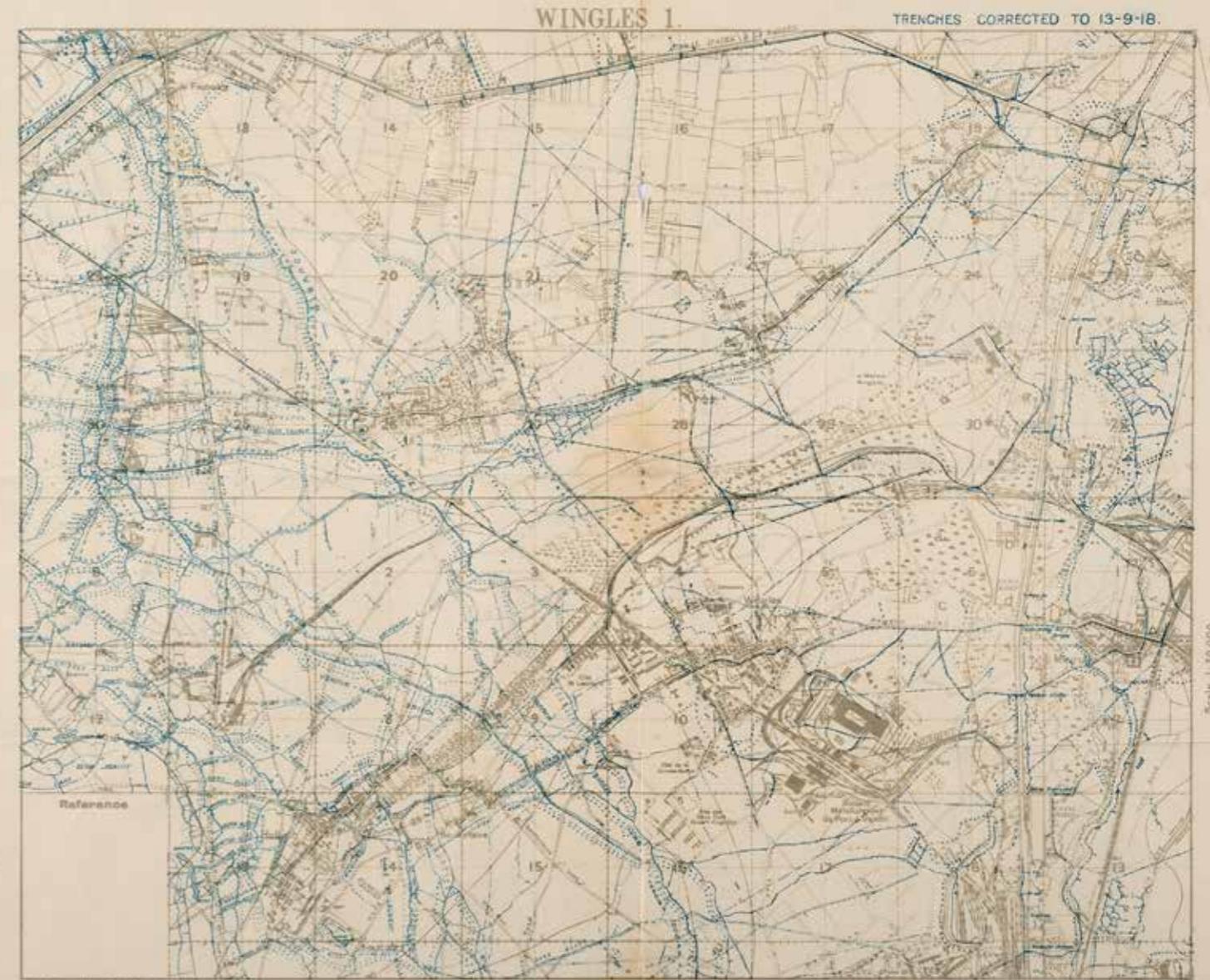
As the war progressed, preparations for attacks and the organisation of treatment of the wounded improved. The document titled *Medical arrangements for collection and treatment of sick and wounded of the Division* (see cat. 125, p. 5) was issued by Colonel ORA Julian, AMS, ADMS, 17th Division, on 26 August 1915. It provided detailed instructions, including map references for where the dressing stations were located, the uses of local buildings and the types of equipment available, with details such as ‘(a) Regimental Aid Posts. / (1) Building at Cross Roads, known as the / BRASSERIE N.5.b.q2 / Extra equip: 2 wheeled stretchers / 24 blankets’.

Also in Cohen’s papers are *17th Division intelligence statements*, which included extracts from captured German orders. Captain Cohen (he was promoted in April 1916) also kept the trench maps from this period, which show the British and German trenches in different colours: those south-west of St Eloi, Ypres and Hazebrouck dating from April 1915 and others from 1918. These maps were used in conjunction with the instructions, to help get the wounded to care and safety.

The personal papers of Captain Cohen give us great insight into the inspiring and dedicated work performed day after day by doctors in the trenches.

### Dr Tony Bartone

Cat. 134 Field Survey Battalion, Royal Engineers, **British Army trench map: WINGLES 1. TRENCHES CORRECTED TO 13-9-18**, 1918, print on paper, 33.0 × 40.0 cm, printed lower left *Fd. Survey Bn. R.E. M1765 29-9-18*. MHMA1684.19, Australian Medical Association Archive, Medical History Museum, University of Melbourne.



## MEDICAL TEAMWORK

The practice of medicine has in many ways changed dramatically since this official war photograph was taken in 1917 but in other ways has remained the same. Lieutenant Colonel Alfred Fay Maclure, who is the surgeon in this photograph, is working in an environment in which his patients have been ripped apart, both physically and mentally. He has no antibiotics, and the anaesthesia is less than ideal. Many would view this scene as a representation of primitive medicine at a very dark hour for humanity.

In other ways however, this scene is highly affirming of the essence of medical practice and is strongly connected to 21st-century practice. The scene is of a team. Each member of the team is concentrating on their particular role and it is clear that the patient, who is completely anonymous in this image, is the focus of their attention. What we see is the epitome of a multidisciplinary team.

Although this photograph captures a moment in time nearly a century ago, in which lives were being saved using inadequate tools in appalling circumstances, the notion of a medical team focusing its attention on the wellbeing of a patient is entirely contemporary.

The Melbourne Medical School has a proud tradition of influencing medical practice through its graduates and the generation of new knowledge, but central to the success of that influence has been the power of the team. The notion of doctors working closely with other health professionals, researchers from all disciplines and the community more broadly is critical to our effectiveness in improving the outcomes for our patients. This poignant photograph captures therefore an essence of medical practice that is timeless.

**Professor Geoff McColl**

Cat. 56 **Dr Alfred Fay Maclure (1883–1956) and team operating in a casualty clearing station in France,** 23 November 1917, photograph, 15.0 × 20.0 cm. MHMA1471.11, Australian Medical Association Archive, Medical History Museum, University of Melbourne.



## AUSTRALIAN RED CROSS

The Australian Branch of the British Red Cross Society (generally referred to as Australian Red Cross) was formed on 13 August 1914 in response to the outbreak of World War I. The wife of Australia's governor-general, Lady Helen Munro Ferguson, called together a group of distinguished individuals in the grand state ballroom of Government House in Melbourne to form the national society, with divisions formed in all states by the wife of each governor. Lady Helen viewed the work of Red Cross—to assist the sick and wounded in war—as largely women's work for the war effort. Australian women agreed and Red Cross branches were quickly established across the nation. By June 1918 Victoria had 886 branches, the largest number of all the states.

Australian Red Cross played a vital role in providing medical equipment and supplies to military hospitals and convalescent homes in Australia and overseas. Volunteers knitted socks, sewed pyjamas, packed parcels and raised over £5 million. Red Cross Voluntary Aid Detachments or VADs, quasi-nurses trained in first aid and home nursing, became the public face of Australian Red Cross, with their white starched dresses and striking red cross emblems on bosom or sleeve. The VAD 'represented selfless, patriotic Australian womanhood, doing her duty with a spirit of loyalty, devotion and endurance'.<sup>1</sup> Australian Red Cross also operated at the front, with commissioners providing a range of comforts for wounded and sick soldiers in hospitals in Egypt, England and on the Western Front. A wounded and missing bureau and prisoners of war department were established, staffed by volunteers.

Work did not end with the cessation of the guns in November 1918. As Lady Helen stated, 'Peace will not close the hospitals; the sick and wounded will be the last to demobilize; therefore Red Cross workers must be the last to quit their posts'. In the post-war period, the organisation expanded its roles to include service to local communities and victims of famine, disease and natural disasters, and in the late 1920s founded a blood donor service. There was plenty of scope for Red Cross work outside of war.

### Professor Melanie Oppenheimer

<sup>1</sup> MN Oppenheimer, *The power of humanity: 100 years of Australian Red Cross 1914–2014*, Sydney: HarperCollins, 2014, p. 31.

Cat. 29 Australian Red Cross Society, **Certificate for service during the Great War [awarded to W Hewlett]**, 1919, ink and print on paper, 26.0 × 24.0 cm. MHM02789, gift of Mrs Nancie L Currie, Medical History Museum, University of Melbourne.



*This Certificate  
is awarded to*

*W Hewlett*

*in recognition of 2 1/2 years devoted service under  
The Australian Red Cross Society  
(B.R.C.S.)*

*during the Great War 1914-1919.*

*Helen Munro Ferguson*

## CSL: SECURING SUPPLIES

During World War I it became clear that Australia, effectively cut off from its traditional sources of critical medicines, could not rely on overseas supplies of sera and vaccines. In 1916 the Australian government established the Commonwealth Serum Laboratories (CSL) to ensure that Australia could be self-sufficient in the timely supply of important biological medicines to the Australian population.

Dr William Penfold, a bacteriologist at Britain's Lister Institute of Preventative Medicine, was appointed as CSL's founding director. He was temporarily based at the Walter and Eliza Hall Institute of Medical Research (WEHI) in Melbourne, until moving to CSL's permanent Parkville site just a few kilometres away in 1917. Collaboration between CSL and the WEHI continues to this day.

CSL's first products included diphtheria and tetanus antitoxins and other antisera; vaccines against typhoid, cholera, plague, whooping cough, smallpox and influenza; and tuberculin. In 1919 the epidemic of Spanish influenza, which killed millions of people around the world, struck Australia and presented CSL with its first major public health challenge. Staff numbers were temporarily tripled and CSL produced 3 million doses of a mixed bacterial vaccine, which was later shown to have effectively combated the secondary effects of flu infection.

Over the next 50 years, CSL provided Australians with rapid access to medical advances including insulin and penicillin, as well as vaccines against tuberculosis and polio. Thus it developed into Australia's largest pharmaceutical enterprise, a fully integrated manufacturer in blood serum fractionation, human and veterinary vaccines, antitoxins, antivenoms, insulin, antibiotics and diagnostics, with some 1100 employees and 140 research staff.

In 1994 CSL was listed on the Australian stock exchange and, following several international acquisitions, has become a global specialty biopharmaceutical company, employing more than 13 000 people in 27 countries. CSL's research effort remains as strong as ever, with the company employing over 1000 scientists and investing almost \$500 million on research and development each year. CSL works closely with Australia's medical research institutes and universities to develop new protein-based therapies for serious unmet medical need.

### Dr Andrew Cuthbertson

Cat. 231 CSL Ltd (Commonwealth Serum Laboratories, Melbourne), **Vaccine bottle, Spanish influenza, 1919**, glass, paper and vaccine, 13.9 x 4.2 cm diameter. HT13133, CSL (Commonwealth Serum Laboratories) Collection, Museum Victoria. Photograph by Michelle McFarlane, copyright Museum Victoria 2003.



## A FITTING TRIBUTE

As a mark of respect, a bronze memorial plaque and a message of condolence (memorial scroll) from King George V (1835–1936) were sent to the next of kin of all men and women in the British Empire who died serving their country in World War I. The plaques were colloquially referred to as the ‘Dead man’s penny’ or the ‘Soldier’s penny’.

Each plaque was sent in a stout, brown cardboard, purpose-made folder, inside a white OHMS (On His Majesty’s Service) envelope. The message from the king preceded the medallion and the recipient was required to confirm that it had been received. The king’s letter also apologised for the delay that might follow, due to the time needed to produce the volume of medallions.

The plaques were produced in former munitions factories and over 1.15 million were distributed throughout the British Empire; they were distributed in Australia from 1922. Some bereaved households made small shrines with the plaques, while others left the packages unopened.

Melville Rule Hughes, MBBS 1915 (1893–1917), enlisted immediately after graduation in May 1916, embarked in August and was sent to France in October. Captain Hughes was posted as the resident medical officer to the 59th Battalion; he was killed by a shell burst while caring for the wounded at Beugny in March 1917.

The plaque sent to Hughes’ family is engraved *HE DIED FOR FREEDOM AND HONOUR* with his name *MELVILLE RULE HUGHES* (without rank, to underline the equality of the sacrifice). It was given, with its original wrappings and accompanying correspondence, to the University of Melbourne in 1990 as part of a bequest from John Charles Farrin Webb to provide an annual scholarship for a graduate in medicine to study for a Master of Surgery. The Melville Hughes Scholarship is now regarded as the pre-eminent research scholarship in surgery at the University of Melbourne. It has enabled young surgeons to pursue surgical research, many then making considerable contributions to fields such as neuro-oncology, neuro-physiology, plastic surgery, oncological surgery and systems analysis. These scholars have gone on to become academic surgeons, and their continuing contribution to clinical surgery, teaching and research is a fitting tribute to the memory of Melville Hughes.

**Professor Andrew H Kaye**

Cat. 19 **Memorial plaque for Captain Melville Rule Hughes**, 1922, bronze, 12.0 cm diameter, inscribed *HE DIED FOR FREEDOM AND HONOUR / MELVILLE RULE HUGHES*. MHM2015.4, bequest of John Charles Farrin Webb, 1990, Medical History Museum, University of Melbourne.



## THE AUSTRALIAN COLLEGE OF DENTISTRY ROLL OF HONOUR

This fine brass plaque was unveiled at the Australian College of Dentistry in Spring Street in 1922 by Major Matthew Baird, MLA, chief secretary of Victoria.<sup>1</sup> As the war had ended in 1918, the plaque's dates of 1914–1919 may represent the time taken for students and staff to return to civilian life in Australia. The epigraph is from Tennyson's *Ode on the death of the Duke of Wellington*.

The roll is not a memorial to the fallen but a tribute to those staff and students who fought for their country in World War I. It had existed as a page in the *Australian Journal of Dentistry* for two years before that and, as such, it invited criticism for being unrepresentative of the whole of dentistry;<sup>2</sup> many non-graduate practitioners also enlisted and fought, even acting as dentists.<sup>3</sup>

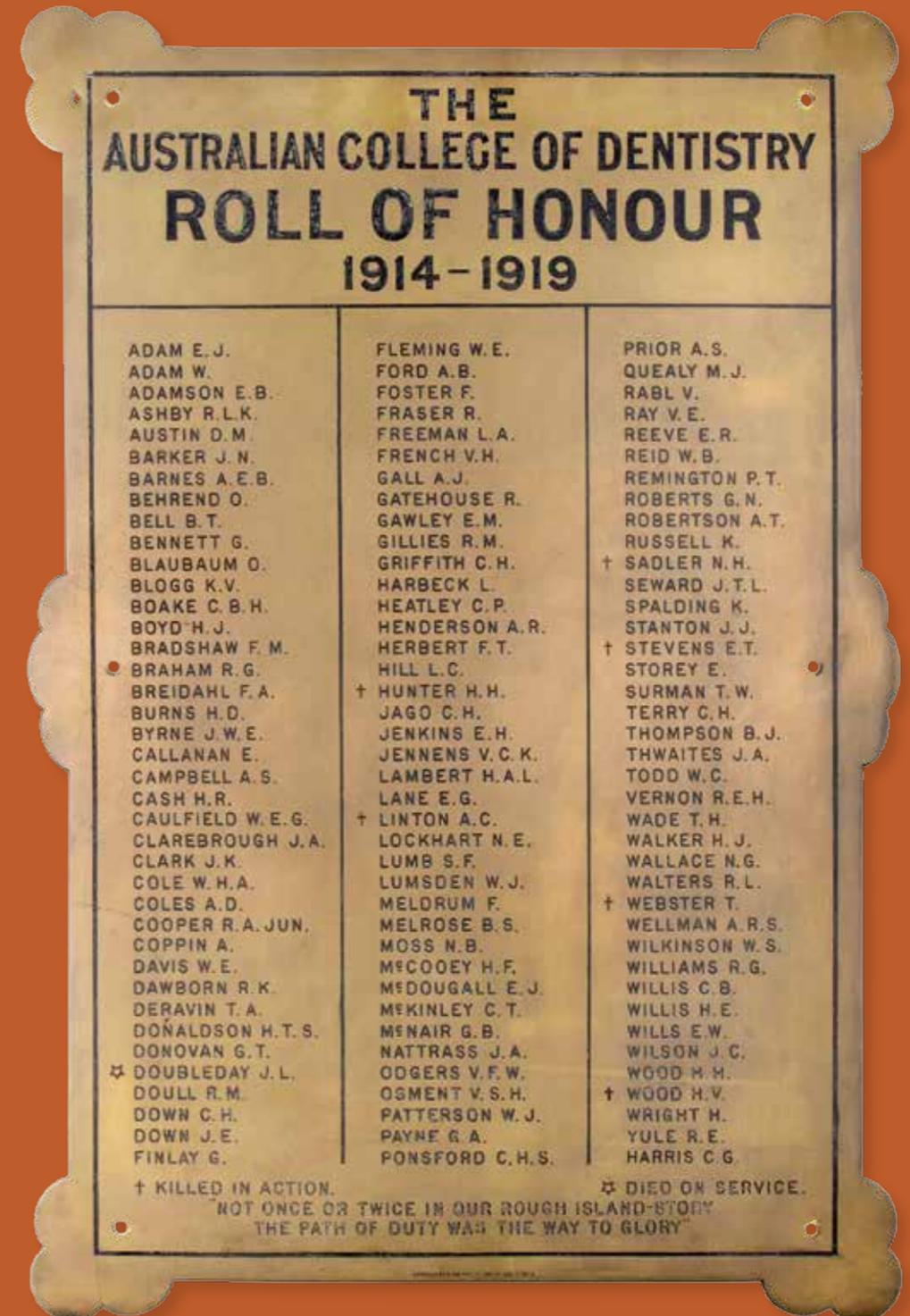
Even as students, before leaving, many of those listed on the roll had examined and treated thousands of recruits of the Australian Imperial Force at Queenscliff and Broadmeadows camps and at the Dental Hospital in Spring Street, where materials and time were freely donated.<sup>4</sup> This was a spontaneous gesture before the creation of an Army Dental Corps, but it also reflected the poor state of the nation's dental health.<sup>5</sup>

Of the 117 names, all but seven survived and returned to continue their work or studies and many of them became leaders of the dental profession. Some of them later became fathers to sons whose dental careers were just as illustrious, for example, Oscar Behrend, Bob Gillies and Elsdon Storey. The students returned to their studies, war-weary but more worldly than the innocents who had so readily enlisted.

### Dr James A McL Robertson

- 1 HF Atkinson, 'In defence of ivory towers: The history of the Royal Dental Hospital of Melbourne', typescript, 1990, chapter 4 (n.p).
- 2 Atkinson, 'In defence of ivory towers'.
- 3 J Robertson, 'Dentistry for the masses?', MA thesis, University of Melbourne, 1989, p. 28.
- 4 HF Atkinson, *The Royal Dental Hospital of Melbourne, 1890–1990*, Melbourne: Waterwheel Press, 1990, p. 8.
- 5 'The dentist and the death rate', *The Age*, 25 May 1919, p. 21.

Cat. 146 *The Australian College of Dentistry roll of honour, 1914–1919*, c. 1922, brass and other metal, 76.0 × 55.0 cm. 1705, Australian College of Dentistry, Henry Forman Atkinson Dental Museum, University of Melbourne.



## DR JOHN WILLIAM SPRINGTHORPE

Dr Springthorpe was 59 years old when, in 1914, he volunteered for military service with the Australian Army Medical Corps. Because of his high status in the medical profession, having been an honorary inpatient physician at the Melbourne Hospital and a lecturer at the University of Melbourne for 27 years, he was immediately appointed senior physician at the 2nd Australian General Hospital in Egypt, with the rank of lieutenant colonel.<sup>1</sup>

Springthorpe's appointments and standing reflected his major achievements. He was a frequent contributor to international medical congresses and was influential in founding the Victorian Branch of the British Medical Association. He was also a founder of the Royal Victorian Trained Nurses' Association, first chairman of the Masseurs' Registration Board, president of the Dental Board and, later, dean of the Faculty of Dentistry, as well as being an official visitor to Victorian mental hospitals.<sup>2</sup>

In Egypt he was faced with treating servicemen from Gallipoli. He was appalled by the inadequate treatment of psychological problems and authorities' seeming indifference to the comfort and support of these patients. His outspoken criticisms led to a commission of enquiry, for which he was returned to Australia in 1916.

Springthorpe was then sent to England to care for troops returning from the Western Front, particularly those with shell shock. He outlined a preferred treatment approach for those who were traumatised, and was an empathic advocate for soldiers trying to avoid being killed: 'It was an open secret that owing to his persistence and against the wishes of the British Headquarters Staff the death penalty for alleged cowardice on duty was never inflicted on Australian soldiers'.<sup>3</sup> After the war he was a pioneer in the psychiatric rehabilitation of veterans.<sup>4</sup> His play *War's awakenings* reflected his anguish about the war.

### Dr Allan Mawdsley

- 1 B Egan, 'Springthorpe, John William (1855-1933)', *Australian dictionary of biography*, vol. 12, Melbourne University Press, 1990.
- 2 'Obituary: Dr JW Springthorpe', *The Argus*, 24 April 1933, p. 8
- 3 BK Rank, *Jerry Moore and some of his contemporaries*, Melbourne: Hawthorn Press, 1975, p. 84.
- 4 JW Springthorpe, 'War neuroses and civil practice', *Medical Journal of Australia*, 4 October 1919, p. 281, cited in J Damousi, 'Australian medical intellectuals and the Great War', *Australian Journal of Politics and History*, vol. 53, no. 3, 2007, p. 447.

Cat. 2 Dr John William Springthorpe (1855-1933), 'Diary of the war, 1914-1919: Medical extracts', 1919, print and ink on paper, 33.0 x 20.3 x 1.0 cm. MHM00677, gift of Dr Guy Springthorpe, 1971. Medical History Museum, University of Melbourne.

Cat. 3 **Dr JW Springthorpe**, c. 1900, photograph, 12.0 x 9.8 cm. MHM00674, gift of Dr Guy Springthorpe, 1971. Medical History Museum, University of Melbourne.

*Private & Confidential*

Diary of the War  
1914 - 1919

Medical Extracts



*J. W. Springthorpe*

*Lt Col. A.I.F.*

## AUSTRALIA'S DEAD

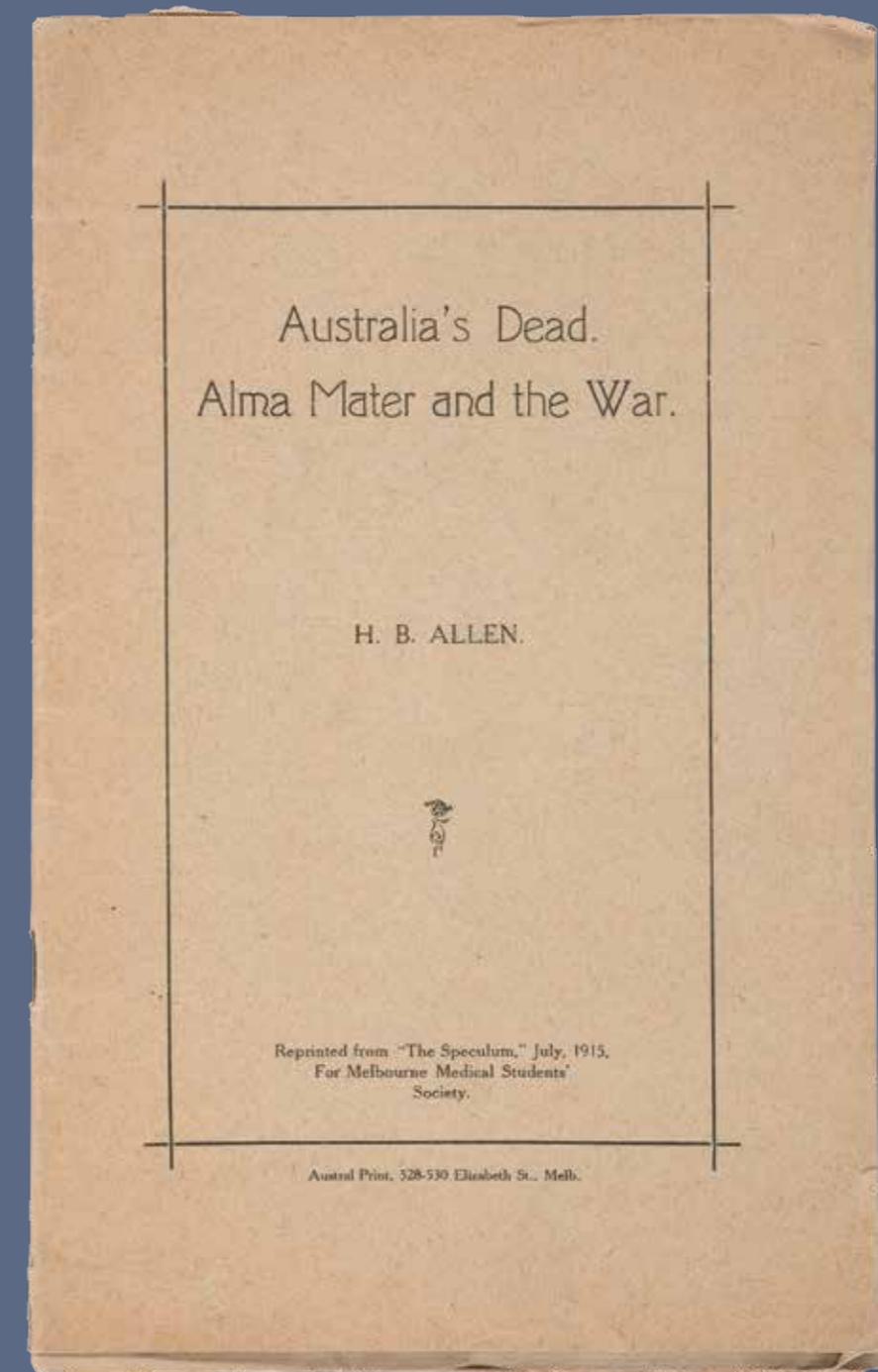
My dead! My best! I sent you forth to fight  
Ungrudging, smiling, though the task was stern,  
To force the hosts of Kaiserdom to learn  
How free Dominions battle for the Right.

On Gaba Tepe's shore, and up the height,  
Swept by close fire ye rushed without concern,  
And held the crest, though foes in waves return,  
Though shell and shrapnel tear you day and night.

By chism of sacrifice, by lives you gave,  
You sought to place a crown upon my brow,—  
A sign of nationhood that all allow,—  
The bloodbought offering of my sons so brave;  
Alas! one wreath alone I cherish now,  
The ring of laurel round each hero's grave.  
—H.B. Allen.

### Professor Sir Harry Brookes Allen (1854–1926)

Cat. 142 Professor Harry Brookes Allen (1854–1926), *Australia's dead* and *Alma mater and the war*, poems reprinted from *The Speculum: The Journal of the Melbourne Medical Students' Society*, no. 93, July 1915, for the Melbourne Medical Society, Melbourne: Austral Print, 1915. MHMA0495.1, Australian Medical Association Archive, Medical History Museum, University of Melbourne.



## WORKS IN THE EXHIBITION

All measurements are expressed height before width before depth.

### MUSEUMS OF THE FACULTY OF MEDICINE, DENTISTRY AND HEALTH SCIENCES, UNIVERSITY OF MELBOURNE

#### MEDICAL HISTORY MUSEUM

- Johnstone, O'Shannessy and Co. Limited (Melbourne); Falk Studios (Melbourne)  
**Sir Alfred Edward Rowden White (1874–1963)**, 1917  
photograph  
27.7 × 18.5 cm  
MHM00400
- Dr John William Springthorpe (1855–1933)  
**'Diary of the war, 1914–1919: Medical extracts'**, 1919  
print and ink on paper  
33.0 × 20.3 × 1.0 cm  
Gift of Dr Guy Springthorpe, 1971  
MHM00677  
(see p. 155)
- Dr JW Springthorpe**, c. 1900  
photograph  
12.0 × 9.8 cm  
Gift of Dr Guy Springthorpe, 1971  
MHM00674  
(see p. 155)
- Carry case owned by AIF Warrant Officer Wilfred Leeming (1891–1955)**, c. 1910  
wood, brass, leather, leatherette, metal and paint  
40.4 × 28.3 × 13.0 cm  
Anonymous gift, 2004  
MHM04489  
Wilfred Leeming was a masseur who served with the Australian Medical Forces in England in World War I. The case was possibly used to carry equipment or documents.
- Photographs from war service of AIF Warrant Officer Wilfred Leeming (1891–1955)**, c. 1915–18  
photographs, cardboard and ink  
varied dimensions  
Anonymous gift, 2004  
MHM04487  
(see p. 179)
- Medal portraying Lord Eustace Cecil, awarded to AIF Warrant Officer Wilfred Leeming (1891–1955)**, 1917  
metal, leatherette, velvet and satin  
3.8 cm diameter (medal);  
6.3 × 6.3 × 1.2 cm (case)  
Anonymous gift, 2004  
MHM04329
- World War I Service Medal, awarded to AIF Warrant Officer Wilfred Leeming (1891–1955)**, 1918  
metal  
3.6 cm diameter  
Anonymous gift, 2004  
MHM04484
- World War I Meritorious Service Medal, awarded to AIF Warrant Officer Wilfred Leeming (1891–1955)**, 1918  
metal  
3.6 cm diameter  
Anonymous gift, 2004  
MHM04485
- King George V  
**Letter to AIF Warrant Officer Wilfred Leeming (1891–1955)**, 1918  
ink on paper  
12.5 × 19.5 cm (letter);  
13.5 × 10.7 cm (envelope)  
Anonymous gift, 2004  
MHM04478  
A 'thank you for services' letter, headed *A Message to You from the King*.
- Certificate of baptism for Melville Rule Hughes (1892–1917)**, 24 June 1892  
ink and print on paper  
16.0 × 29.0 cm  
Bequest of John Charles Farrin Webb, 1990  
MHM2015.8
- Dr Ralph D Wheeler, acting medical superintendent, Melbourne Hospital  
**Reference for Dr Melville Rule Hughes (1892–1917)**, 5 April 1916  
ink on paper  
25.0 × 20.0 cm  
Bequest of John Charles Farrin Webb, 1990  
MHM2015.7.1
- Dr JE Llewellyn Lambert, 110 Collins Street, Melbourne  
**Reference for Dr Melville Rule Hughes (1892–1917)**, 3 April 1916  
ink on paper  
21.0 × 17.5 cm  
Bequest of John Charles Farrin Webb, 1990  
MHM2015.7.2
- Dr JF Wilkinson, 14 Collins Street, Melbourne  
**Reference for Dr Melville Rule Hughes (1892–1917)**, 30 March 1916  
ink on paper  
18.0 × 13.0 cm  
Bequest of John Charles Farrin Webb, 1990  
MHM2015.7.3
- Dr TH Lloyd, honorary superintendent of inpatients, Melbourne Hospital  
**Reference for Dr Melville Rule Hughes (1892–1917)**, 3 April 1916  
ink on paper  
18.0 × 11.0 cm  
Bequest of John Charles Farrin Webb, 1990  
MHM2015.7.4
- Dr GJ Howard, physician at the Melbourne Hospital, acting lecturer in medicine at the University of Melbourne, 4 Collins Street, Melbourne  
**Reference for Dr Melville Rule Hughes (1892–1917)**, 4 April 1916  
ink on paper  
20.0 × 15.0 cm  
Bequest of John Charles Farrin Webb, 1990  
MHM2015.7.5
- Melbourne Hospital  
**Envelope addressed to Dr Melville Rule Hughes (1892–1917), containing references**, 1916  
ink on paper  
10.0 × 22.0 cm  
Bequest of John Charles Farrin Webb, 1990  
MHM2015.7.6
- British War Medal 1914–18, awarded to the late Captain Melville Rule Hughes (1892–1917)**, AIF 44190  
metal, cloth and paper

5.0 × 4.0 cm (medal);  
7.0 × 5.0 cm (envelope);  
7.5 × 3.5 cm (ribbon – folded in half);  
9.0 × 6.0 cm (box)  
Bequest of John Charles Farrin Webb, 1990  
MHM2015.3

18 Major [J McLean], Officer in charge of Base records, Australian Imperial Force, Victoria Barracks, Melbourne  
**Letter to H Hughes**, 22 May 1922  
print and ink on paper  
19.0 × 21.0 cm (letter);  
12.5 × 23.0 cm (envelope)  
envelope addressed in ink *H. Hughes Esq. 1 Staniland Grove, Elsternwick, Victoria*  
Bequest of John Charles Farrin Webb, 1990  
MHM2015.5

19 **Memorial plaque for Captain Melville Rule Hughes**, 1922  
bronze, paper and cardboard  
12.0 cm diameter (medallion);  
13.5 × 13.5 cm (cardboard wrapping);  
14.0 × 13.5 cm (envelope)  
medallion reads *HE DIED FOR FREEDOM AND HONOUR / MELVILLE RULE HUGHES*  
envelope written in ink *3rd M.D.*; typed *356684, Captain. M.R. Hughes, A.M.C. / H. Hughes, Esq., / 1, Staniland Grove, / ELSTERNWICK. Vic. / DT.*  
Bequest of John Charles Farrin Webb, 1990  
MHM2015.4  
(see p. 151 and back cover)

20 King George V  
**Message of condolence ('memorial scroll') accompanying memorial plaque for the late Captain Melville Rule Hughes (1892–1917)**, 1922  
print on paper  
19.0 × 12.0 cm  
signed *George R.I.*  
Bequest of John Charles Farrin Webb, 1990  
MHM2015.5.3

21 John Tye & Son (London)  
**War Office Medical Division: shell dressing**, 1917  
cloth, tape, thread, glass and iodine  
6.2 × 13.0 cm  
MHM04530  
(see p. viii)

22 Burroughs Wellcome & Co.  
**Injections kit with syringe of 20 cc capacity, needles and phials**, c. 1900  
glass, brass and other metal  
2.0 × 8.9 × 8.4 cm  
MHM00084

23 Burroughs Wellcome & Co. (Australia) Ltd (Sydney)  
**Pill bottle: potassium permanganate (gr. 1)**, c. 1900  
potassium permanganate, glass, paper, ink and cardboard  
6.8 × 3.6 × 3.0 cm  
Originally from Palmer's Pharmacy, Ballarat, Victoria  
MHM01378  
(see p. 63)

24 **Gaba Tepe, September 1915**, 1915  
photograph  
24.0 × 58.3 cm  
MHM03912

25 [Algernon] Darge, 'The Soldier's Photographers' (Melbourne)  
**Army Medical Corps, 1st Contingent, A.I.F. Oct. 1914**, 1914  
photograph  
35.6 × 45.5 cm  
MHM03878  
(see p. vi)

26 **Bruce's safety lamp, owned by Dr Mary C De Garis (1881–1963)**, c. 1900  
brass, copper and glass  
36.5 × 15.0 × 14.0 cm  
MHM02490

27 Metters Limited (Adelaide, established 1891)  
**Spittoon**, c. 1900  
iron and enamel  
7.5 cm × 21.5 cm diameter  
Barrie Thompson Collection  
MHML0218  
(see p. xii)

28 **Spittoon**, c. 1880  
glazed earthenware  
8.1 cm × 18.1 cm diameter  
Gift of Dr Eric Cunningham Dax, 1986  
MHM01692  
(see p. xii)

29 Australian Red Cross Society  
**Certificate for service during the Great War [awarded to W Hewlett]**, 1919  
ink and print on paper  
26.0 × 24.0 cm  
Gift of Mrs Nancie L Currie  
MHM02789  
(see p. 147)

30 **First women students admitted to Melbourne Medical School**, 1887  
photograph  
28.0 × 33.0 cm  
MHM02037  
Standing, left to right (with year of

graduation): Helen Sexton (1892–93), Lillian Alexander (1893–94), Annie O'Hara (1894–95); seated: Clara Stone (1891–92), Margaret Whyte (1891–92), Grace Vale (1894–95), Elizabeth O'Hara (1892–93).  
(see p. 37)

31 Alice Mills (Melbourne)  
**Medical Students. 5th Year. 1905. Melbourne University**, 1905  
photograph  
31.0 × 40.0 cm (image);  
42.0 × 52.0 cm (mount);  
60.0 × 70.0 cm (frame)  
Gift of Susan Samuel, daughter of Amos Walter Bowman.  
MHM2015.20  
inscribed in ink *F.E. Langley, A.E. Harker, N.J. Gerrard, A.G. Dane, C.V. Mackay, R.R. Wettenhall, M.D. Nesbitt*  
[back row] *H. C. Wilson, J. Chirnside, W.G. Brown, G.L. Perry, G. Paton, H.R. Duncan, S.V. Sewell* [next row] *J. Maloney, H.G. Wadelton, R.D. O'Leary, A.W. Bowman, C. Shields (BA), L.S. Kidd, A. Weigall* [next row] *C. Greer, J.G. Avery, G.C. McK. Mathison* [front row]

32 Alice Mills (Melbourne)  
**Fifth year medicine 1908**, 1908  
photograph  
54.7 × 66.5 cm  
MHM00501  
From rear to front, left to right: PA Maplestone, **ET Brennan**, RE Harris, AE South, F Hayes, JP Horgan, FB Martin, WG Cuscaden, RL Morton, ML Williams, C Daniel, HN Featonby, PL Florance, R Salts, ME Robinson, S Cochrane, GL Lillies, CL Clarke, FE Cox, AJ Brenan, WC Sangster, AF Bell, R Perrins, WG Southey, LJ Mitchell, JA O'Brien, J Adamson (MA), RA Robertson, NL Speirs, CE King, MC Gardner, **BW Cohen**, AG Miller, P Matenson, C Salter, WB Ryan, M Jacobs, VL Crowe, JB Brady, JR Davis, JH Anderson, AW Morgan.

33 **Senior anatomy class 1912**, 1912  
photograph  
33.0 × 77.0 cm  
MHM00443  
Back row, left to right: FF McMahon, J McDonald, G Sleeman, A Dickson, JV Guest, LP Brent, D Kayes, HB Graham, SG Gibson, AJ Bothamley, KA McLean, AW Bretherton, HM James, F McCallum, DG Craig, TR Jagger, **GC Scantlebury**, EM Inglis, JC Harper, H Weir, JE Wigley, JE Shelley, TG Fetherstonhaugh, D Bickarf,



- 40 Alice Mills (Melbourne)  
**Gordon Clunes McKay Mathison (1883–1915)**, 1908 photograph  
15.2 × 7.5 cm  
signed in ink *Yours Sincerely G.C. Mathison, 1908*.  
Gift of Department of Physiology, University of Melbourne, 1968  
MHM00320
- 41 **Dr Gordon Clunes McKay Mathison (1883–1915)**, 1914 photograph  
19.7 × 15.5 cm  
Gift of Department of Physiology, University of Melbourne, 1968  
MHM00321  
(see p. 48)
- 42 **Dr Gordon Clunes McKay Mathison (1883–1915) on horseback with riding companion**, c. 1910 photograph  
8.8 × 13.9 cm  
Gift of Department of Physiology, University of Melbourne, 1968  
MHM00318
- 43 [Algernon] Darge, 'The Soldier's Photographers' (Melbourne)  
**Dr Gordon Clunes McKay Mathison (1883–1915)**, 1914 photograph  
22.6 × 11.8 cm  
printed on mount *Darge, / The Soldier's Photographers, / 175 COLLINS ST, / MELBOURNE* written in ink on mount  
1914 / *WOUNDED CAPE HELLES / DIED ALEXANDRA MAY 21 1915*  
Gift of Department of Physiology, University of Melbourne, 1968  
MHM00322  
(see p. 51 and front cover)
- 44 **Dr Gordon Clunes McKay Mathison's (1883–1915) grave**, c. 1916 photograph  
23.9 × 16.6 cm  
MHM00323
- 45 Dr Andrew Brenan (1888–1978)  
**Photographs of field hospital, Rouen**, 1917 photograph  
10.0 × 8.0 cm  
MHM2015.9
- 46 Winifred McCubbin (Australian, 1893–1967)  
**Dr Vera Scantlebury Brown (1889–1946)**, 1943  
oil on canvas  
49.0 × 37.0 cm (image);  
62.0 × 43.0 cm (frame)
- Gift of Catherine James Bassett, daughter of Vera Scantlebury Brown, 2013  
MHM02013.90
- 47 Rex Bramleigh (Australian, 1923–2014)  
**Sir William Johnston (1887–1962)**  
oil on canvas  
14.5 × 99.2 × 9.0 cm (frame)  
MHM01960
- AUSTRALIAN MEDICAL ASSOCIATION ARCHIVE, MEDICAL HISTORY MUSEUM**  
  
Loaned to the Medical History Museum by the Australian Medical Association (Victorian Branch) in 1994, then donated outright in 2011.
- 48 **Photomontage**, c. 1914–18  
photomontage, paint and ink  
49.8 × 70.6 cm  
*Portable Electric Lighting / Equipment / for the / First Australian General Hospital / for use at the Dardanelles for Hospital Illumination / and X Ray Apparatus. / DONATED BY THE KEW TOWN COUNCIL / Supplied by / Sutherland & Ashman, Melbourne*  
Gift of Miss M Johnson to the Australian Medical Association, Victorian Branch, July 1972  
MHM04263
- 49 **Male urethral syringe**, c. 1900  
glass, bakelite and rubber  
22.0 × 8.0 × 1.5 cm diameter  
MHM03983  
(see p. 173)
- 50 **Urethral syringe**, c. 1900  
vulcanite and glass  
9.7 × 2.2 × 1.0 cm diameter  
MHM03995  
(see p. 173)
- 51 Seabury & Johnson (New York)  
**Medical dressing**, c. 1900–40  
impregnated gauze, cardboard, paper and ink  
3.5 × 9.6 × 9.6 cm  
printed label: *Corrosive sublimate gauze 1 to 2000 – poison absorbent*  
MHM03942
- 52 (Ernest) Daryl Lindsay (Australian, 1889–1976)  
**Maclure's Nose Works, 'new noses for old' satisfaction guaranteed and prices reasonable**, 1940  
ink and pencil on paper  
33.0 × 20.0 cm  
signed *All good wishes Fay. / Daryl Lindsay / Xmas 1940*  
MHMA1471.3
- 53 Lang Lanson (Melbourne)  
**Dr Alfred Fay Maclure (1883–1956)**, 1914 photograph  
15.0 × 10.0 cm (image);  
17.0 × 15.0 cm (mount)  
signed *Lang Lanson Melbourne*; on reverse in ink *Fay Maclure, Given to Sister Pratt about 1914*  
MHMA1471.9
- 54 **Dr WFD La Touche, Daryl Lindsay (1889–1976) and Dr Alfred Fay Maclure (1883–1956) at Sidcup**, 1919 photograph  
21.0 × 15.5 cm  
MHMA1471.10.1
- 55 **Dr Alfred Fay Maclure (1883–1956) with his wife, Nurse Mary Christina Kennedy (1884–1965), at Lemnos**, Christmas 1915 photograph  
21.0 × 15.5 cm  
MHMA1471.7.1
- 56 **Dr Alfred Fay Maclure (1883–1956) and team operating in a casualty clearing station in France**, 23 November 1917 photograph  
15.0 × 20.0 cm  
MHMA1471.11  
(see p. 145)
- 57 **3rd Australian General Hospital, stationed at a general hospital in Abbassia, Egypt**, 1916 photograph  
8.5 × 14.0 cm  
MHMA1471.14  
Image includes Captain Alfred Fay Maclure (1883–1956), Lieutenant Colonel Frederic Donald Herbert Blois Lawton (1886–1961) and Captain Roger St Clair Steuart (1882 – after 1918)
- 58 Albert W Savage  
**Medical officers of the 3rd Australian General Hospital in a courtyard at the hospital**, 1916 photograph  
15.0 × 21.0 cm  
Back row, from left to right: Captain Frederick Lawton, Captain Walter Matthews, Captain Charles Kellaway, Captain Quinto Ercole, Honorary Lieutenant Ronald Glen, Captain Alfred Fay Maclure [written *McClure*], Lieutenant Jack Hill, Captain Gordon Lowe, Captain Thomas Anderson; middle row: Lieutenant Frank Marshall, Major Clarence Read [written *Reid*], Captain Roger Steuart, Major Herbert
- Stewart, Major John Morton, Major Charles Wassell, Lieutenant Henry Hazlett [written *Haslett*], Major Edward Makeham (Chaplain, Church of England); front row: Major John Lockhart Gibson, Lieutenant Colonel Charles Martin [written *Marshall*], Lieutenant Colonel Richard Stawell, Colonel Bernard Newmarch (Officer Commanding), Lieutenant Colonel Charles MacKnight [written *McKnight*], Major William Trethowan, Major Kenneth Smith (Registrar).  
MHMA1471.13.1 (Australian War Memorial AWM J01657)  
(see p. 94)
- 59 **University of Melbourne record of active service 1914–1918, medical graduates and undergraduates, roll of honour**, 1918  
print on paper  
33.0 × 20.0 cm  
MHMA1679.2
- 60 **Melbourne University – record of active service – 1914–1918, medical students who lost their lives**, 1918  
print on paper  
33.0 × 20.0 cm  
MHMA1679.1
- 61 Dr William Lockyer Potter (c. 1878–1949)  
**The value of intravenous injections of antimony in the treatment of chronic secondary chancroid ulceration**  
reprint from *The Medical Journal of Australia*, 27 July 1919  
MHMA2092.1  
Dr William Lockyer Potter was a captain in the Australian Army Medical Corps, posted to the No. 5 Australian General Hospital.
- 62 Dr William Lockyer Potter (c. 1878–1949)  
**The influence of treatment and rest on gonorrhoea**  
reprint from *The Medical Journal of Australia*, 13 September 1919  
MHMA2092.2
- 63 Dr William Lockyer Potter (c. 1878–1949)  
**Some principles underlying the function and effective action of muscles: Their explanation and illustration, with particular reference to war injuries**  
Sydney: Australasian Medical Publishing Company, 1928  
MHMA2092.3
- 64 **Group including Dr William Lockyer Potter (c. 1878–1949)**, c. 1919 photograph
- 19.0 × 29.0 cm  
MHMA2092.4
- 65 **Group including Dr William Lockyer Potter (c. 1878–1949)**, c. 1919 photograph  
25.0 × 30.0 cm  
MHMA2092.5
- 66 Dr Roland R Wettenhall (1882–1965)  
**Dermatology on active service with the RAMC**  
reprint from *The Medical Journal of Australia*, 3 March 1917  
MHMA1529.1
- 67 Helen HM Sexton (1862–1950)  
**'Notes of cases in Hôpital Australien de Paris, 46 Rue du Dr Blanche, Auteuil, Paris XVI'**, 1915  
ink and print on paper  
21.0 × 14.5 cm  
MHMA2189.1  
Presented to the Australian Medical Association in 1974 by Dr O'Sullivan of Ballarat, who received it from Roz Watt (see p. 105)
- 68 **Healing wounds by irrigation: Marvellous surgery in France**  
*The Age*, Saturday 31 March 1917  
MHMA2189.2  
Presented to the Australian Medical Association in 1974 by Dr O'Sullivan of Ballarat, who received it from Roz Watt
- 69 **University of Melbourne: Certificates for the degree of MB**, 1887–93  
print on paper in leather cover  
11.0 × 19.5 cm  
signed *Helen H.M. Sexton / 1887*  
MHMA2189.7  
Presented to the Australian Medical Association in 1974 by Dr O'Sullivan of Ballarat, who received it from Roz Watt
- 70 **Dr Mary C De Garis (1881–1963)**, c. 1905 photograph  
16.0 × 11.0 cm  
MHMA1182.1
- 71 Dr Mary C De Garis (1881–1963)  
**Notes on malaria as seen in Macedonia by Mary C de Garis, MD, BS (Melb) Geelong (late Chief Medical Officer, Scottish Women's Hospital, Ostrovo, Macedonia)**  
reprint from *The Medical Journal of Australia*, 2 August 1919  
MHMA1182.3
- 72 Dr Mary C De Garis (1881–1963)  
**Two unusual joint injuries by Mary C de Garis, MD, BS (Melb) Geelong, Victoria**
- reprint from *The Medical Journal of Australia*, 24 July 1919  
MHMA1182.4
- 73 British Medical Association (Victorian Branch)  
**Menu**, 1915  
print on paper  
18.0 × 12.0 cm  
printed *British Medical Association (Victorian Branch) 'dinner' to the medical officers of the Australian Imperial Expeditionary Force, Scott's Hotel, Melbourne, 17 May 1915, program and menu*  
signed in pencil on front by five individuals, including Harvey Sutton and CJ Tucker  
MHMA0489.1
- 74 British Medical Association (Victorian Branch)  
**Menu**, 1914  
print on paper  
18.0 × 11.5 cm  
printed *'Bon voyage' to the medical officers of the Australian Imperial Expeditionary Force from the members of British Medical Association (Victorian Branch), the Melbourne Medical Association and the Army Medical Corps, Scott's Hotel, Melbourne, September 19th, 1914, program and menu*  
MHMA0489.2
- 75 Medical Students' Society of the University of Melbourne  
**Menu**, 1914  
pencil, ink and print on paper  
15.5 × 10.0 cm folded;  
15.5 × 20.0 cm extended  
*Melbourne University, Medical Students' Society, annual dinner, menu, Sargent's Café, Elizabeth St, Thursday, September 17th, 1914*  
MHMA1036.1
- 76 Medical Students' Society of the University of Melbourne  
**Medical Students' Society, annual report of the committee, 1914–1915**, 1915  
print on paper  
23.5 × 19.0 cm  
MHMA1036.2
- 77 Medical Students' Society of the University of Melbourne  
**Medical Students' Society, annual report of the committee, 1915–1916, Students' room, Melbourne Hospital, March 31st, 1916**, 1916  
print on paper  
26.0 × 19.5 cm  
MHMA1036.3

- 78 Medical Students' Society of the University of Melbourne  
*Medical Students' Society, annual report of the committee, 1916-1917, Students' room, Melbourne Hospital, April 3rd, 1917*, 1917  
print on paper  
28.0 × 21.5 cm  
MHMA1036.4
- 79 *The Third Australian Division marching through the main street of Peronne, in France, on October 4th. 1918, passing an American Division making its way to a sector of the fighting area from which the Australians had just withdrawn*, 1918  
photograph  
17.5 × 20.5 cm (image);  
19.0 × 22.0 cm (mount)  
written in ink on back *My father, Dr M.H. O'Sullivan recognised himself in this photograph from his orderly who was facing him*  
MHMA1328.1  
(see p. 12)
- 80 *Motor ambulance presented by the members of the British Medical Association in Australia*, c. 1915  
photograph  
20.0 × 27.0 cm (mount)  
MHMA1329.1
- 81 Dr Thomas Cherry (1861-1945) and Dr FB Lawton (1886-1961)  
*Bilharziasis, I. Bilharziasis, and the danger of the disease becoming an epidemic in Australia, by Major Thomas Cherry, MD, MS, Australian Medical Corps, II. Early clinical features of the disease, by Capt FB Lawton, AAMC*  
Commonwealth Government of Australia, Department of Defence, 1917  
MHMA1417.1
- 82 Public Health Department of Victoria; printed by Albert J Mullett, Government Printer (Melbourne)  
*Venereal Diseases Act 1916. Warning Notice!*, c. 1917  
print on paper  
22.0 × 14.0 cm  
MHMA1539.8  
(see p. 59)
- 83 J King Patrick (1877-1964)  
*Venereal disease, the menace in our midst*  
Brisbane: Carter-Watson Co. Ltd, 1919  
MHMA1416.1  
Read at the Strength of Empire Congress, 25 September 1919
- 84 *Adelaide Hospital, night clinics, venereal disease*  
Adelaide: REE Rogers, Government Printer, 1920  
MHMA1416.2
- 85 John Aloysius O'Brien (1854-1924)  
*Venereal diseases: A warning and a guide*  
Melbourne: Albert J Mullett, Government Printer, 1917  
MHMA1416.3  
Publication for the general community on venereal disease following the passing of the *Venereal Diseases Act 1916*, which compelled people to seek treatment.
- 86 *Venereal diseases, duties of patients, and directions to parents and guardians*  
Melbourne: Albert J Mullett, Government Printer, for the Public Health Department of Victoria, c. 1916  
MHMA1416.4
- 87 *Health Act 1919: Regulations relating to notifiable infectious disease, 28 September 1920*  
Melbourne: Albert J Mullett, Government Printer, for the Commission of Public Health, 1920  
MHMA1539.1
- 88 *Venereal Diseases Act. Form A. Notice of change of medical adviser*, 1916  
print on paper  
10.0 × 26.5 cm  
MHMA1539.2
- 89 *Venereal Diseases Act. Form C. Notification of name and address to the medical inspector*, 1916  
print on paper  
10.0 × 26.5 cm  
MHMA1539.3
- 90 *Venereal Diseases Act. Form D. Certificate of cure of venereal disease or of having ceased to be liable to convey infection*, 1916  
print on paper  
10.0 × 26.5 cm  
MHMA1539.4
- 91 *Venereal Diseases Act. Form E. Certificate of freedom from venereal disease*, 1916  
print on paper  
10.0 × 26.5 cm  
MHMA1539.5
- 92 Orient Line  
*Ship's passenger list*, 1915  
print on paper  
16.5 × 12.0 cm  
*Orient Line list of passengers by SS 'Orontes', 9,023 tonnes. FS Symonds Commander. From Brisbane: 4th April; from Sydney: 7th April; from Melbourne: 14th April; from Fremantle: 20th April 1915*  
MHMA1487.1
- 93 *Remnants from Randwick: No. 4 Australian General Hospital*  
no. 2, 1919  
MHMA0511.1
- 94 *The No. 5: A Magazine Published by the Patients and Staff of No. 5 Australian General Hospital, St Kilda Road, Melbourne*  
vol. 1, no. 2, September 1918  
MHMA0511.2
- 95 *No. 5 A.G.H.: A Magazine Published by the Patients and Staff of No. 5 Australian General Hospital, St Kilda Road, Melbourne*  
souvenir copy, August 1918  
MHMA0511.3



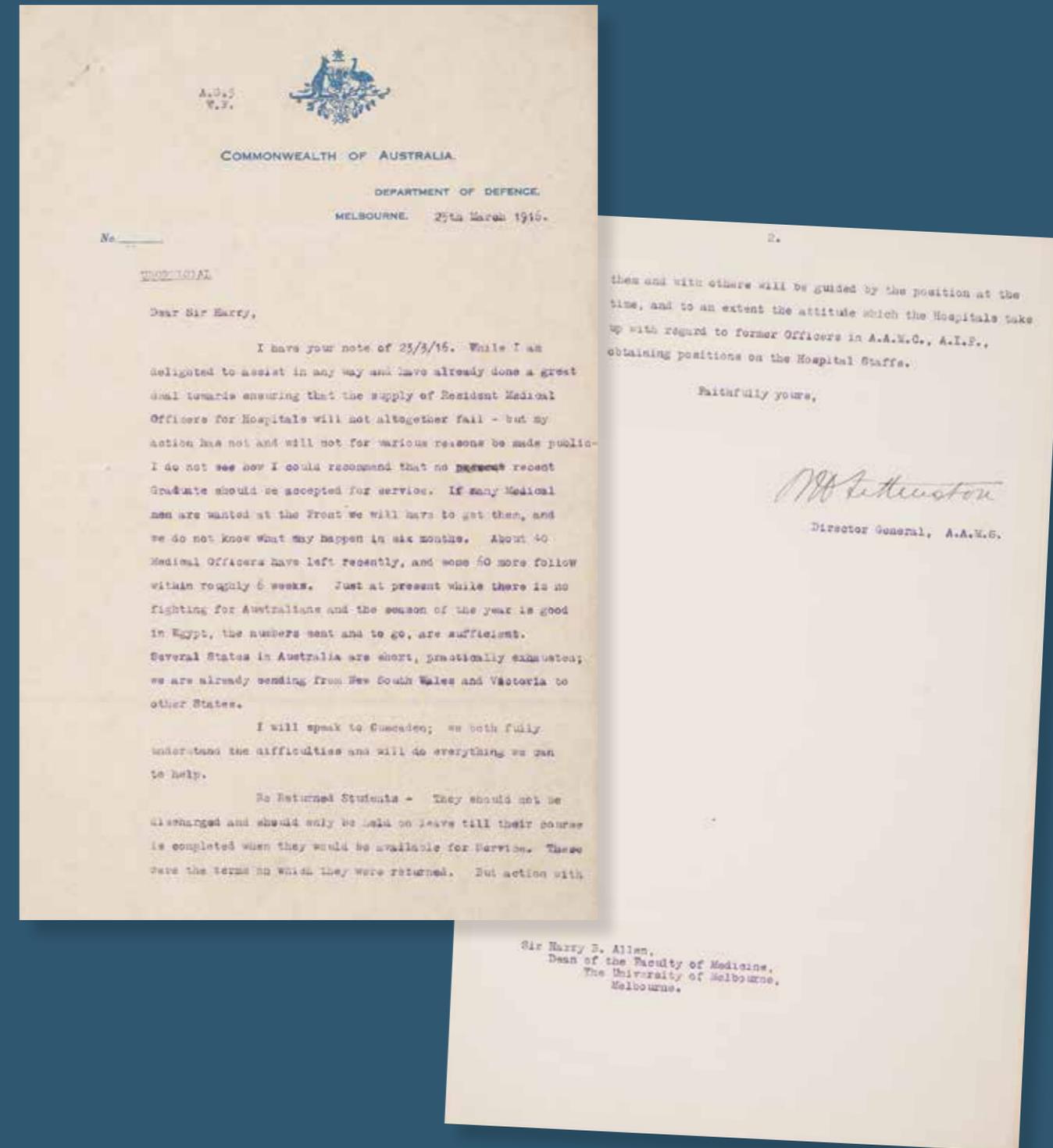
Cat. 34 *Fifth year medicine. 1913*, 1913, photograph, 50.5 × 67.0 cm. MHM00496. Medical History Museum, University of Melbourne.

Medallions, left to right: AH O'Hara Wood, AP Drummond, **JR Balfe**, JL Davis, GE Cranstoun; main group, from rear to front, left to right: SW Shields, WH Godby, WWS Johnson, GA Birnie, A Pryde, GEM Stuart, FT Wheatland, ER Mackay, HW Ward, FP Halkyard, RP Young, M Yuille, AH Joyce, JS Reed, CR Lister, CT Stephen, HC Colville, SE Humphries, CA Stewart, AJ McShane, CH Martin, RF Craig, F Mackay, HR Dew, AF Jolley, HNM Puckle, AC Fraser, WA Hailes, C Checchi, DD Coutts, WH Rennick, NH Fairley, CF MacGillicuddy, AP Derham, TW Hoggarth, WB Utber, H Evans, JD Norris, RMW Webster, **Miss V Scantlebury**, Miss H Kelsey, HF Wickens, **Miss R Champion**, Miss AR Donaldson, GAAS Robinson, TG Oliphant, AH Melville, S Mackay, LA Wright, FH Moran, GP Merz, JV Pearce.

- 96 **Officers of the 2nd Field Ambulance, Bailleul, France**, c. 1917  
photograph  
12.0 × 8.0 cm  
MHMA2110.1  
Standing, left to right: unidentified, Captain John Hemphill Rutter, Captain Frank William Augustus Ponsford, Major Clyde I Davis, Captain John Sydney Green; seated, left to right: Major Frederic Thomas Alexander Lovegrove, Colonel Harry Carew Nott, Colonel Eric Wilkins Gutteridge.
- 97 **Some-where in France [B section, 2nd Field Ambulance, Tent Division, 1st AIF]**, May 1916  
photograph  
12.0 × 17.0 cm  
on reverse in ink the two marked with a cross are Ballarat boys, Sergt Hall sitting and C.A. Bromley standing behind him, this was taken not long after our arrival in France at Estaires most of them have left the unit now. best love Elgin. [Back row, left to right:] C Matthews, E Roper, CA Bromley, E Mars, Sutton, Grieves, B Syme; [middle row, left to right:] Martin (cook), L Hall, C Maine, H Wilkinson, T Telfer, E Skillicorn; [front row, left to right:] Bartlett (cook), F Gentles, B Hard, F Scott  
Gift of CA Blomeley, 1974  
MHMA2110.2  
(see p. 23 and inside back cover)
- 98 **Federal Committee of the British Medical Association in Australia: Obligations of the profession to its members who are or have been on military service (Min. 189(b)), 2 February, 1918**, 1918  
print on paper  
34.0 × 21.0 cm  
MHMA0855.1
- 99 William Fitzpatrick (1854–1940)  
**The repatriation of the soldier**  
Melbourne: Victorian State War Council, 1916  
MHMA0855.2
- 100 William Fitzpatrick (1854–1940)  
**The repatriation of the soldier: Vocational training, employment, afforestation, land settlement**  
Melbourne: Victorian State War Council, 1916  
21.0 × 13.5 cm  
MHMA0855.3
- 101 **Repairing the havoc**  
*The Colac Herald*, 26 February 1915, p. 3  
MHMA2404.1
- 102 **War and disease: Modern medical science**  
*The Argus*, 12 June 1915, p. 5  
MHMA2404.2
- 103 [Captain RAR Wallace]  
**Returned from the front: A doctor's experiences: Caring for the wounded**  
*The Argus*, 9 June 1915, p. 5  
MHMA2404.3
- 104 **Is there such a thing as a new disease?** [article on bilharzia]  
*The Argus*, 29 September 1917, p. 18  
MHMA2404.4
- 105 **Fewer fatal wounds: Phials of iodine for soldiers**  
*The Argus*, 13 May 1915, p. 5  
MHMA2404.5
- 106 **Surgery in the field: Successful treatment of wounds**, 1915  
*The Argus*, 3 March 1915, p. 7  
MHMA2404.6
- 107 **Soldiers and lockjaw**  
*The Argus*, 5 December 1914, p. 9  
MHMA2404.7
- 108 **Human side of war: The doctors' part: Unexampled bravery (from our special correspondent) at the front**  
*The Argus*, 2 November 1915, p. 9  
MHMA2404.8
- 109 Patients at the Military Imtarfa, Malta  
**Postcard to Miss Inglis: a thank you note for sending papers**, c. 1914–18  
photographic postcard, written in ink on back  
9.0 × 14.0 cm  
MHMA1786.1
- 110 Montenth  
**Dr Percy Campbell (1894–1928)**, c. 1915  
photograph  
19.0 × 9.0 cm  
inscribed in ink MONTENTH  
MHMA1786.2  
Dr Percy Campbell, MBBS (Melbourne), was the brother of Dr Jack Campbell.
- 111 Spencer R Sitier (Melbourne)  
**Dr Jack Campbell**, c. 1915  
photograph  
19.0 × 14.0 cm  
inscribed in ink *Love from Jack*  
MHMA1786.3  
Dr Jack Campbell graduated MBBS from the University of Melbourne in 1905.
- 112 **Dr Edward Champion (1867–1929)**, 1917  
photograph  
15.0 × 10.0 cm (image);  
24.0 × 15.0 cm (mount)  
MHMA1786.4  
Dr Edward Champion graduated MBBS from the University of Melbourne in 1892.
- 113 **Seymour Military Camp, 2nd June 1916**, 1916  
photograph  
10.5 × 15.5 cm (image);  
20.0 × 25.0 cm (mount)  
on reverse in ink *Privates, Standing:—RS Hewett [11st 8lb] / Stan Bateman / H Herrick / Lee Sercombe (Ex-teller Bank of Australasia Pt Fairy) my mate / Sitting:—Corporal Chapman / [John Smythe Yule] — captain Yule — Medical Officer — note 3 stars / Lance Corporal Jock Young (Broad Scotch) Dispenser / In front:— Private Don Patterson — Maltese Cart Driver — / Seymour Military Camp, 2nd June 1916, AMC Details 37th Battalion, 10th Brigade, Australian Imperial Forces on Active Service*  
MHMA1786.5
- 114 King George V  
**Commission appointing Basil Walter Cohen, MB (1885–1972), as lieutenant in RAMC**, 1915  
print and ink on paper  
30.0 × 40.0 cm (extended)  
signed in ink at top *George R.I.* and lower left *Basil Walter Cohen, M.B.*  
MHMA1684.14  
(see p. 161)
- 115 Martins (London)  
**Paper wrapping from tobacco and cigarettes**, c. 1915–18  
print on paper  
26.0 × 10.5 cm (paper wrapping band)  
printed 60 / 1 *Packet Tobacco. / 50 Cigarettes. / Supplied by / Martins / 210, Piccadilly / London. W. / This parcel is sent through / The Over-Seas Club / Tobacco Fund. / General Buildings, Aldwych, London, WC*  
MHMA1684.3
- 116 **5th Corps summary of information, no. 100** [newsletter for soldiers], 13 August 1915  
print on paper  
34.3 × 21.6 cm  
MHMA1684.17.2
- 117 **17th Division intelligence statement**, 13 August 1915  
print on paper  
34.3 × 21.6 cm  
MHMA1684.18.2
- 118 **5th Corps summary of information, no. 106** [newsletter for soldiers], 19 August 1915  
print on paper  
34.3 × 21.6 cm  
MHMA1684.15
- 119 **17th Division intelligence statement, no. 18**, 29 August 1915  
print on paper  
34.3 × 21.6 cm  
MHMA1684.17.1
- 120 **Envelope**, c. 1915–18  
addressed To: *SECRET, M.O. Sender's No. B242*  
pencil and print on paper  
8.0 × 13.5 cm  
MHMA1684.16.1
- 121 **Envelope**, c. 1915–18  
ink on paper  
20.5 × 11.0 cm  
addressed to *Capt. B.W. Cohen, Attached 5th B. Irish Fusiliers B.C.F. France*  
MHMA1684.8
- 122 **Trench map: MAP OF LINES SW OF ST ELOI, MADE AT II WING RFC, 18th April 1915**, 1915  
print on paper  
24.0 × 21.0 cm (map);  
38.0 × 33.0 cm (sheet)  
MHMA1684.22
- 123 **Map: BELGIUM 1:40,000, YPRES (ROULERS), THIRD EDITION (CONTOURS REVISED), 28, O.S.O., 1915**, 1915  
print on paper  
53.0 × 81.0 cm (map);  
65.0 × 88.0 cm (sheet)  
MHMA1684.23
- 124 **Map: BELGIUM 1:100,000, HAZEBROUCK, FOR OFFICIAL USE ONLY, OSO, 1915**, 1915  
print on paper  
57.0 × 72.0 cm (map);  
69.0 × 89.0 cm (sheet)  
MHMA1684.24
- 125 Colonel ORA Julian  
**Medical arrangements for collection and treatment of sick and wounded of the Division**, 1915  
[refers to] *Reference map no. 28 (1 × 40,000). [issued by] O.R.A. Julian, Colonel. A.M.S. / A.D.M.S. 17th Divn. / 26th August, 1915*  
print on paper  
34.3 × 21.6 cm  
MHMA1684.6  
(see p. 5)
- 126 Colonel ORA Julian  
**Note to Dr Basil Walter Cohen (1885–1972)**, 27 August 1915  
accompanied *Medical arrangements for collection and treatment of sick and wounded ...*  
inscribed 1584 / *Lieut BW Cohen / MVFc. Pimissit Battn / 17th Div / For your information. / Please acknowledge receipt. / ORA. Julian / Colonel A.M.S. / A.D.M.S. 17th Div. / 27.8.15*  
ink on paper  
20.5 × 8.5 cm  
MHMA1684.7  
(see p. 5)
- 127 **Field almanac: Official copy**  
London: His Majesty's Stationery Office, 1916  
inscribed in pencil M.O.  
MHMA1684.4
- 128 Army Printing and Stationery Services (France)  
**Instructions for front line application of Thomas's splint**, 1917  
print on paper  
34.3 × 21.6 cm  
MHMA1684.12  
(see p. 121)
- 129 **Le Petit Parisien: Illustrierte Französische Zeitschrift für Deutsche Leser**  
vol. 12, no. 5, Thursday 31 May 1917  
Hamburg: Gebrüder Paustian  
MHMA1684.13
- 130 **Short vocabulary of French words and phrases with English pronunciation. Note on French measures. Abbreviations and terms used on French maps**  
London: His Majesty's Stationery Office, 1915, reprinted 1917  
MHMA1684.5
- 131 **General principles, guiding the treatment of wounds of war. Conclusions adopted by the Inter-Allied Surgical Conference held in Paris, March and May, 1917**  
London: His Majesty's Stationery Office, 1917  
MHMA1684.2
- 132 **Secret, 48th BDE Q 54/199 4/– 2/9/18. Notes of administration in the event of an advance. No. 6**, 1918  
print on paper  
34.3 × 21.6 cm  
printed *The following notes are intended as a guide only, as the circumstances which would attend an advance cannot be foreseen.*
- 133 Field Survey Battalion, Royal Engineers  
**British Army trench map: LA BASSÉE CANAL (5). TRENCHES CORRECTED TO 28-5-18**, 1918  
print on paper  
33.0 × 40.0 cm  
*Field Survey Batt. RE 6458*  
MHMA1684.20  
British trenches are marked in blue, German trenches in red.
- 134 Field Survey Battalion, Royal Engineers  
**British Army trench map: WINGLES 1. TRENCHES CORRECTED TO 13-9-18**, 1918  
print on paper  
33.0 × 40.0 cm  
printed lower left *Fd. Survey Bn. R.E. M1765 29-9-18*  
MHMA1684.19  
(see p. 143)
- 135 **British Army trench map: 16TH DIVNS AREA – No. M.D. 4-Sheet 'A'. 22-9-18**, 1918  
print on paper  
33.0 × 40.0 cm  
MHMA1684.21
- 136 **Honour for English Army**  
*Le Progrès du Nord et du Pas-De-Calais*  
28 October 1918  
MHMA1684.11  
*Le Progrès du Nord* was the first newspaper to appear in Lille after the Germans' departure; it happily presents the grateful homage of the population to the brave English Army for liberating Lille.
- 137 **Das Benehmen der Amerikanischen Armee an der Westfront** [The conduct of the American army on the Western Front], 1919  
propaganda flyer  
print on paper  
20.5 × 11.0 cm  
MHMA1684.9
- 138 The Secretary, War Office, London  
**Letter to Captain Basil Walter Cohen, MB (1885–1972), thanking him for his service in the Royal Army Medical Corps and consequent demobilisation**, 22 May 1919  
print and ink on paper  
21.0 × 17.0 cm  
MHMA1684.11

- 139 On His Majesty's Service  
**Envelope to Captain Basil Walter Cohen MB (1885-1972), readdressed to Hampstead Hospital**, postmarked 23 May 1919  
print and ink on paper  
9.5 x 12.0 cm  
MHMA1684.1.2
- 140 **Pass issued to Captain Basil Walter Cohen MB (1885-1972)**, 5 February 1920  
photograph, print and ink on paper  
32.5 x 12.5 cm (document);  
6.0 x 6.0 cm (photograph)  
*Pass no. 66538 on government service, embarkation permit. For discharged soldiers returning to their homes abroad.*  
MHMA1684.10
- 141 Dr John William Springthorpe (1855-1933)  
**War's awakenings, wise and otherwise: A tragedy in a prologue, three acts and an epilogue, by 'A digger'**  
Melbourne: JW Springthorpe (South Melbourne: JL Anderson & Sons), 1932  
MHMA0743.1
- 142 Professor Harry Brookes Allen (1854-1926)  
**Australia's dead and Alma mater and the war**  
poems reprinted from *The Speculum: The Journal of the Melbourne Medical Students' Society*, no. 93, July 1915, for the Melbourne Medical Society  
Melbourne: Austral Print, 1915  
MHMA0495.1  
(see p. 157)
- 143 T Humphrey & Co. (Melbourne)  
**Dr Gordon Clunes McKay Mathison (1883-1915)**, 1914  
photograph  
13.0 x 8.5 cm (image);  
24.5 x 20.0 cm (mount)  
pasted on mount is a photocopy of signature *Mathie, 1914*  
MHMA1307.1.1
- 144 **Bravo Gallipoli: In memory of ANZAC: 25th April, 1915**  
Melbourne: No. 5 Australian General Hospital (Base Hospital), 1918  
photographic souvenir in printed cover  
14.3 x 22.6 cm  
MHMA1997.1  
(see pp. 7, 15, 69)
- 145 **Frederick Dougan Bird, president Medical Society of Victoria 1896**, c. 1915  
photograph  
31.7 x 44.3 cm  
MHM03902
- HENRY FORMAN ATKINSON DENTAL MUSEUM**
- 146 **The Australian College of Dentistry roll of honour 1914-1919**, c. 1922  
brass and other metal  
76.0 x 55.0 cm  
Australian College of Dentistry  
1705  
(see p. 153)
- 147 **Memorial plaque in memory of dental students, for X-ray machine**, 1923  
brass and wood  
21.0 x 26.5 cm  
Australian College of Dentistry  
552
- 148 **Splint, cast upper and lower**, c. 1914-50  
metal  
5.8 x 5.0 x 1.6 cm  
1960
- 149 **Head-cap made of open webbing**, c. 1917  
cotton and other fabric  
18.0 x 18.0 x 11.0 cm  
Gift of Major Kenneth Russell  
2639
- 150 **Splint for external attachments**, c. 1917-20  
gypsum, cast metal and paint  
2.5 x 6.0 x 5.0 cm  
Gift of Major Kenneth Russell  
2641
- 151 **Cast lower splint and guard**, c. 1920  
gypsum, brass and paint  
2.0 x 9.0 x 8.0 cm  
Gift of Major Kenneth Russell  
2642
- 152 **Articulated model and anterior splints**, c. 1920  
gypsum, metal and paint  
7.5 x 8.5 x 7.0 cm  
Gift of Major Kenneth Russell  
2644  
(see p. 31)
- 153 **Moulded mandible in two parts**, c. 1920  
metal and synthetic material  
4.5 x 9.5 x 10.0 cm  
Gift of Major Kenneth Russell  
2652
- 154 **Splint**, c. 1917  
gypsum and cast metal (brass alloy)  
4.0 x 8.0 x 6.5 cm  
Gift of Major Kenneth Russell  
2654  
(see p. viii)
- 155 **Articulated model and anterior splints**, c. 1920  
gypsum, brass and paint  
7.0 x 9.0 x 8.0 cm  
Gift of Major Kenneth Russell  
2658  
(see pp. 31, 124)
- 156 **Articulated model and anterior splints**, c. 1920  
gypsum and brass  
7.0 x 9.0 x 8.0 cm  
Gift of Major Kenneth Russell  
2659  
(see p. 31)
- 157 **Australian College of Dentistry Alumni Society Committee 1916**, 1916  
photograph  
45.3 x 57.8 cm  
3116
- 158 **Dr Fannie Gray, examining a soldier's teeth**, c. 1915  
photograph  
57.3 x 47.2 cm  
3115  
(see p. 111)
- 159 S.S. White Dental Manufacturing Company (USA)  
**Portable dental chair**, c. 1910-30  
wool, cast iron, nickel-plated steel and wood  
120 x 69 x 150 cm irregular  
Australian College of Dentistry  
1538  
(see p. 125)
- 160 **Foot-operated dental engine**, c. 1900  
cast iron and nickel-plated metal  
135 x 32 x 52 cm irregular  
Australian College of Dentistry  
1562

Cat. 190 Commonwealth of Australia Department of Defence, **Letter to Sir Harry Brookes Allen**, 25 March 1916, print and ink on paper, 33.0 x 21.0 cm. Box 3 of 11, folder 3/7, 1976.0006, Sir Harry Brookes Allen Collection, University of Melbourne Archives.



- 161 **Dental instruments pouch**, c. 1900  
leather, metal, bone and paper  
19 × 14 × 4 cm irregular  
Australian College of Dentistry  
1744
- 162 Australian official photographer  
**The surgery of 101st Australian  
Dental Unit attached to 5th Division  
Artillery, erected in a field in France**,  
3 June 1918  
photographic print from glass  
negative  
left to right: Private Ian McLay,  
Captain Edward Middleton Gawley,  
patient, Staff Sergeant Frederick  
Marles  
3142  
(see p. 3)
- 163 **Major Kenneth Russell (1885–1945)**  
photograph  
reproduced from an original  
photograph owned by Major Russell's  
family
- 164 **In Memoriam: Captain Herbert  
Humphreys Hunter (1881–1915)**  
*Australian Journal of Dentistry*, 31 May  
1915  
ink, paper  
3143
- HARRY BROOKES ALLEN MUSEUM  
OF ANATOMY AND PATHOLOGY**
- 165 **Stomach specimen, seven days after  
mustard gas poisoning**, 1918  
human tissue and glass  
12.5 × 15.5 × 15.5 cm  
531-003783
- 166 **Lung specimen, mustard gas poisoning**,  
1918  
human tissue and glass  
18.0 × 12.0 × 5.0 cm  
531-002842
- 167 **Bronchus specimen, mustard gas  
poisoning**, 1918  
human tissue and glass  
9.0 × 7.5 cm diameter  
531-003784  
(see p. 131)
- 168 **Pericardium specimen, gas poisoning  
(ninth day)**, 1918  
human tissue and glass  
19.6 × 15.2 × 15.2 cm  
531-003476
- 169 **Spleen specimen, infection by  
*Clostridium perfringens***, 1918  
human tissue and glass  
23.5 × 12.8 cm diameter
- 531-007366  
(see p. 131)
- 170 **Foreign body removed from German  
prisoner**, 1916  
metal  
4.2 × 20.3 × 9.0 cm  
516-500303
- 171 **Left upper limb specimen, shell wound**,  
1916  
human tissue and glass  
32.0 × 16.5 cm diameter  
531-007365  
(see p. 131)
- 172 **Skull, bullet lodged in the sphenoid bone**,  
c. 1914–18  
bone and metal  
17.2 × 9.0 × 5.0 cm  
531-003663
- 173 **Brain specimen, with bullet track**, before  
1950  
human tissue and plastic  
25.0 × 20.0 × 6.0 cm  
531-006737
- 174 **Body louse specimen (*Pediculus humanus  
corporis*)**, late 20th century  
biological tissue and glass  
7.5 × 2.5 × 0.1 cm  
531-008104
- 175 **Mucosa of the ileum, with typhoid  
ulcers**, early 20th century  
human tissue and glass  
14.0 × 6.0 × 2.7 cm  
531-001333
- 176 **Epiglottis and trachea specimen,  
syphilitic ulceration**, early 20th century  
human tissue and plastic  
25.0 × 10.2 × 6.2 cm  
531-001087
- 177 **Heart specimen, syphilitic aortitis**, early  
20th century  
human tissue and plastic  
27.0 × 23.0 × 8.0 cm  
531-003105
- 178 **Skull and scalp, gummatous ulceration**,  
early 20th century  
human tissue and plastic  
22.0 × 16.5 × 10.0 cm  
531-000334
- 179 Casciani and Son (Dublin)  
**Model of the head of an aged man,  
brain exposed on the side**,  
c. 1883–1903  
plaster and paint  
24.0 × 20.0 × 13.5 cm  
516-500115
- COLLECTIONS OF THE UNIVERSITY  
OF MELBOURNE LIBRARY**
- BROWNLESS BIOMEDICAL LIBRARY**
- 180 G Thibierge, edited by CF Marshall  
**Syphilis and the army**  
University of London, 1918
- 181 Jean Lepine, edited by CA Mercier  
**Mental disorders of war**  
London University Press, 1919
- SPECIAL COLLECTIONS, BAILLIEU  
LIBRARY**
- 182 Franz Mraček  
**Atlas and epitome of diseases of the skin,  
including an epitome of pathology and  
treatment**  
Philadelphia and London: WB  
Saunders & Co., 1905  
(see p. 99)
- 183 Hermann Lebert  
**Traité d'anatomie pathologique générale  
et spéciale** (vol. 1: Atlas)  
Paris and New York: J.-B. Baillière, 1864  
(see p. 65)
- 184 **The Speculum: The Journal of the  
Melbourne Medical Students' Society**  
nos 92–105, May 1915 – December  
1919  
(see pp. x, 11, 55, 101, 117)
- UNIVERSITY OF MELBOURNE  
ARCHIVES**
- 185 **Soldier wearing respirator**, c. 1916  
photograph  
21.0 × 15.0 cm  
UMA/I/1777, University of Melbourne  
Photographs Collection  
(see p. 119)
- 186 Professors David Orme Masson (1858–  
1937), William Alexander Osborne  
(1873–1967) and Thomas Howell Laby  
(1880–1946)  
**Gas mask**, c. 1915  
cloth, metal and plastic  
56 × 46 cm irregular  
1979.0042, University of Melbourne  
Department of Chemistry Collection  
(see p. 93)
- 187 **Gas mask, belonged to Dr Alfred  
Plumley Derham (1891–1962)**,  
c. 1915  
cloth, metal and plastic  
10.0 × 15.0 cm (goggles);  
10.0 × 17.0 cm (mask)  
1963.0024, Alfred Plumley Derham  
Collection
- 188 Colonel RH Featherston, Medical  
Services  
**Letter to commandant, 3rd Military  
District**, 1 March 1915  
print and ink on paper  
33.0 × 21.0 cm  
Box 3 of 11, folder 3/7, 1976.0006,  
Sir Harry Brookes Allen Collection
- 189 Major H Grover, Commonwealth  
Military Forces, 3rd Military District  
(Melbourne)  
**Letter to Professor Harry Brookes  
Allen, asking for list of names of  
medical students on active service in  
the AIF**, 5 November 1915  
print and ink on paper  
33.0 × 21.0 cm  
Box 3 of 11, folder 3/7, 1976.0006,  
Sir Harry Brookes Allen Collection
- 190 Commonwealth of Australia  
Department of Defence  
**Letter to Sir Harry Brookes Allen**,  
25 March 1916  
print and ink on paper  
33.0 × 21.0 cm  
Box 3 of 11, folder 3/7, 1976.0006,  
Sir Harry Brookes Allen Collection  
(see p. 169)
- 191 Director General of Medical Services  
**Conditions of service [for medical  
personnel]**, 1917  
print on paper  
33.0 × 21.0 cm  
Box 3 of 11, folder 3/7, 1976.0006,  
Sir Harry Brookes Allen Collection
- 192 **List of medical officers**, c. 1918  
print and ink on paper  
33.0 × 21.0 cm  
headed *MEDICAL OFFICERS OF H.M.  
AUSTRALIAN SHIPS* and *MEDICAL  
OFFICERS OF ROYAL AUSTRALIAN  
NAVAL RESERVES*  
Box 3 of 11, folder 3/7, 1976.0006,  
Sir Harry Brookes Allen Collection
- 193 **Service at the front**, c. 1918  
print and ink on paper  
36.0 × 23.0 cm  
Box 3 of 11, folder 3/7, 1976.0006,  
Sir Harry Brookes Allen Collection
- 194 Professor Harry Brookes Allen  
(1854–1926)  
**Letter to Secretary for Defence**,  
18 August 1916  
print and ink on paper  
Box 3 of 11, folder 3/7, 1976.0006,  
Sir Harry Brookes Allen Collection
- 195 Professor Harry Brookes Allen  
(1854–1926)  
**Letter to Adjutant General**,  
25 December 1915  
print and ink on paper  
36.0 × 23.0 cm  
Box 3 of 11, folder 3/7, 1976.0006,  
Sir Harry Brookes Allen Collection
- 196 Warren Lodge (Trinity College,  
University of Melbourne)  
**Letter to Professor Harry Brookes  
Allen (1854–1926)**, 19 May 1916  
print and ink on paper  
36.0 × 23.0 cm  
Box 3 of 11, folder 3/7, 1976.0006,  
Sir Harry Brookes Allen Collection
- 197 Premier's Office (Victoria)  
**Correspondence**, 5 August 1915  
print and ink on paper  
36.0 × 23.0 cm  
Correspondence regarding *A Bill  
to Amend Law Regulating Medical  
Practitioners; Act No. 2581, An Act  
Relating to Certain Graduates in Medicine  
and Surgery Who are on War Service*.  
Box 3 of 11, folder 3/7, 1976.0006,  
Sir Harry Brookes Allen Collection
- 198 Trinity College, University of  
Melbourne  
**The Trinity roll of honour**, c. 1919  
ink on paper  
57.0 × 29.0 cm  
annotated by Professor Harry Brookes  
Allen (1854–1926)  
Box 3 of 11, folder 3/6, 1976.0006,  
Sir Harry Brookes Allen Collection  
(see p. 115)
- 199 **The Melbourne University Magazine**  
vol. 9, no. 3, October 1915  
Box 3 of 11, folder 3/6, 1976.0006,  
Sir Harry Brookes Allen Collection
- 200 **University of Melbourne, Department  
of Pathology: Catalogue of pathological  
specimens including war specimens**,  
1907–28  
ink on paper  
36.0 × 23.0 × 3.0 cm  
1990.0009, University of Melbourne,  
Department of Pathology Collection
- 201 **Australian Dental Hospital, Egypt**,  
1918  
photograph  
15.5 × 20.5 cm  
1977.0013, Sir Arthur Barton Pilgrim  
Amies Collection  
(see p. ii)
- 202 **Surgery at the Australian Dental  
Hospital, Egypt**, c. 1918  
photograph  
16.0 × 20.0 cm  
1977.0013, Sir Arthur Barton Pilgrim  
Amies Collection  
(see p. 27)
- 203 **Patient record from Sidcup showing  
the types of injury and treatments  
undertaken for Mills, LR**, c. 1918  
21.0 × 26.5 cm  
1979.0044, Sir Arthur Barton Pilgrim  
Amies Collection  
(see p. 79)
- 204 **Patient record showing the types of  
injury and treatments undertaken for  
Mendleson, B**  
print on paper  
26.5 × 21.0 cm  
Gift of the British Dental Association  
1979.0044, Sir Arthur Barton Pilgrim  
Amies Collection
- 205 **Medical case sheet for Quinn, EF,  
Canadian section, Sidcup Hospital,  
Kent**, 1918  
print on paper  
34.0 × 21.5 cm (four pages)  
1979.0044, Sir Arthur Barton Pilgrim  
Amies Collection
- 206 **Medical case sheet for Shore, EM**,  
1918–19  
print on paper  
32.5 × 26.0 cm (four pages)  
1979.0044, Sir Arthur Barton Pilgrim  
Amies Collection
- 207 **Brown, 27.8.1917, Typical bullet  
entrance wound**, 1917, reprinted 1940  
photograph  
30.0 × 22.3 cm  
Gift of the Army Cinema Centre  
1979.0044, Sir Arthur Barton Pilgrim  
Amies Collection  
(see p. 77)
- 208 **Typical exit wound, Brown, 1917**, 1917,  
reprinted 1940  
photograph  
30.0 × 22.3 cm  
Gift of the Army Cinema Centre  
1979.0044, Sir Arthur Barton Pilgrim  
Amies Collection
- 209 **Brown [after surgery], 3/7/18**, 1918,  
reprinted 1940  
photograph  
30.0 × 22.3 cm  
Gift of the Army Cinema Centre  
1979.0044, Sir Arthur Barton Pilgrim  
Amies Collection  
(see p. 77)

- 210 **Facial injuries – Gillies and Fry, 1918/1919**, 1918–19, reprinted 1940 photograph  
30.0 × 22.3 cm  
Gift of the Army Cinema Centre  
1979.0044, Sir Arthur Barton Pilgrim Amies Collection
- 211 **[Facial injuries] Goodie 11/6/18**, 1918, reprinted 1940 photograph  
30.0 × 22.3 cm  
Gift of the Army Cinema Centre  
1979.0044, Sir Arthur Barton Pilgrim Amies Collection
- 212 **Sidcup patient with upper and lower splints in place**, c. 1918  
X-ray photograph  
30.0 × 22.3 cm  
1979.0044, Sir Arthur Barton Pilgrim Amies Collection
- 213 **Photograph of dental appliance**, c. 1918  
print and ink on paper  
30.0 × 22.3 cm  
1979.0044, Sir Arthur Barton Pilgrim Amies Collection
- 214 **Chart for recording injuries of the jaw [with details for patient Private R Yeomans]**, c. 1916–18  
print, ink and pencil on paper  
26.5 × 21.0 cm  
1979.0044, Sir Arthur Barton Pilgrim Amies Collection (see p. 24)
- 215 Dr Flora Murray (1869–1923)  
**Letter offering Dr Vera Scantlebury (1889–1946) appointment as assistant surgeon to the Endell Street Military Hospital in London**, 24 October 1916  
typescript on paper  
34.3 × 21.6 cm  
Gift of Catherine James Bassett, daughter of Vera Scantlebury Brown  
2013.0058, Vera Scantlebury Brown Collection (see p. 39)
- 216 Dr Flora Murray (1869–1923)  
**Cablegram regarding appointment of Dr Vera Scantlebury (1889–1946) to Endell Street Military Hospital in London**, 1916  
print and pencil on paper  
19.0 × 21.0 cm  
Gift of Catherine James Bassett, daughter of Vera Scantlebury Brown  
2013.0058, Vera Scantlebury Brown Collection (see p. 35)
- 217 **Military uniform buttons and insignia worn by Dr Vera Scantlebury (1889–1946) at Endell Street Military Hospital**, c. 1914–18  
metal  
varied dimensions  
Gift of Catherine James Bassett, daughter of Vera Scantlebury Brown  
2013.0058, Vera Scantlebury Brown Collection
- 218 **Dr Vera Scantlebury (1889–1946) and her brother Dr George Clifford Scantlebury (1890–1976)**, c. July 1918  
photograph in folding leather wallet  
14.0 × 9.5 cm (image);  
17.0 × 12.5 cm (frame)  
Gift of Catherine James Bassett, daughter of Vera Scantlebury Brown  
2013.0058, Vera Scantlebury Brown Collection (see p. 107)
- TRINITY COLLEGE ARCHIVES, UNIVERSITY OF MELBOURNE**
- 219 **Herbert Hunter (1818–1915)**, 1914  
photograph, in album made by Norman Brothers (Melbourne)  
vinyl-wrapped card, paper and photographic prints  
27.4 × 36.7 × 5.0 cm  
Herbert Hunter was a student of Trinity College at the University of Melbourne in 1903–04. This album contains photographs of 40 of the College's 41 fallen alumni of World War I. The photographs were originally framed and mounted with brass labels in the Junior Common Room in 1922, before being dismantled at an unknown date and bound into this album.
- AUSTRALIAN WAR MEMORIAL**
- 220 Thomas Howell Laby (1880–1946)  
**Gas mask: 'Melbourne University respirator'**, c. 1914–18  
cloth, rubber and metal  
38 × 20 cm irregular  
RELAWM04055
- 221 Australian official photographer **Captain Kenneth Russell (1885–1945) working on a non-commissioned officer of his unit, in the dental surgery at Henencourt, France**, March 1917  
photographic print from glass negative original  
E00378  
(see p. 83)
- 222 Surgeon General Charles Snodgrass Ryan (1853–1926)  
**Australian burial parties burying Australian and Turkish dead at either Quinn's Post or Chessboard, during the temporary armistice**, 24 May 1915  
photograph  
P02649.025  
(see p. 139)
- 223 Surgeon General Charles Snodgrass Ryan (1853–1926)  
**Casualty clearing station**, May 1915  
photograph  
P0797.001  
(see p. 137)
- 224 Surgeon General Charles Snodgrass Ryan (1853–1926)  
**Surgeon General Charles Ryan sitting outside his dugout, Gallipoli Peninsula, Turkey**, May 1915  
photograph  
P02648.029  
(see p. 9)
- 225 Surgeon General Charles Snodgrass Ryan (1853–1926)  
**Cape Helles**, May 1915  
photograph  
P02648.027  
(see p. 17)
- 226 **Queen Mary, escorted by an officer and two nurses, visiting a patient at Sidcup Hospital, Kent, England**, c. 1917–18  
photograph  
P03040.001  
Gift of H Crompton  
Australian War Memorial  
(see p. 74)



Cat. 49 **Male urethral syringe**, c. 1900, glass, bakelite and rubber, 22.0 × 8.0 × 1.5 cm diameter. MHM03983, Medical History Museum, University of Melbourne.

Cat. 50 **Urethral syringe**, c. 1900, vulcanite and glass, 9.7 × 2.2 × 1.0 cm diameter. MHM03995, Medical History Museum, University of Melbourne.

**BRITISH DENTAL ASSOCIATION MUSEUM**

227 George Cunningham (1852–1919) *You can't fight if you can't bite*, c. 1912 film, section

**IMPERIAL WAR MUSEUM**

228 Australian official photographer **The Battle of Passchendaele, July–November 1917: Australian troops: Men of the 10th Brigade who had been in the front-line trenches for several days have a foot inspection at Dragon Farm**, 14 October 1917 photograph E(AUS) 939, Australian First World War Official Exchange Collection © Imperial War Museum (see p. 84)

229 Unidentified soldier of the London Rifle Brigade **British troops advance to the attack through a cloud of poison gas, viewed from the trench they have just left (on the opening day of the Battle of Loos)**, 25 September 1915 photograph HU 63277B, London Rifle Brigade Collection © Imperial War Museum (see p. 89)

230 Lieutenant John Warwick Brooke **Western Front: A sergeant of the Lancashire Fusiliers in a flooded dugout opposite Messines near Ploegsteert Wood**, January 1917 photograph Q 4665, Ministry of Information First World War Official Collection © Imperial War Museum (see p. 87)

**MUSEUM VICTORIA**

231 CSL Ltd (Commonwealth Serum Laboratories, Melbourne) **Vaccine bottle, Spanish influenza**, 1919 glass, paper and vaccine 13.9×4.2 cm diameter HT13133 CSL (Commonwealth Serum Laboratories) Collection (see p. 149)

**NATIONAL LIBRARY OF AUSTRALIA**

232 **Tents of a field hospital near Anzac Cove, Gallipoli**, c. 1915 photograph 7.7×12.7 cm inscribed in ink below image *Hospitals etc. Anzac towards Suvla* nla.pic-vn6390058 From album of photographs and memorabilia, 1908–18, belonging to WAS Dunlop (1892–1966) (see p. 103 and inside front cover)

**ROYAL AUSTRALASIAN COLLEGE OF SURGEONS**

233 (Ernest) Daryl Lindsay (Australian, 1889–1976) [Se96/139] **No 69: Pte Paterson (115)**, c. 1916 watercolour and ink on paper 17.0×17.5 cm (see p. 81)

234 (Ernest) Daryl Lindsay (Australian, 1889–1976) [Se96/130] **No. 1564: L Cpl. Nelson C: Tibia graft working up through gum**, 24 April 1919 watercolour and ink on paper 10.5×10.1 cm (see p. 81)

235 (Ernest) Daryl Lindsay (Australian, 1889–1976) [Se96/202], **18. Pte. Parker W**, [25 March] 1918 watercolour and ink on paper 29.1×22.3 cm (see p. 123)

**ROYAL MELBOURNE HOSPITAL, MENTAL HEALTH PHOTOGRAPH COLLECTION**

236 **Dr Clarence Godfrey (1867–1948) and colleague**, c. 1916 photograph 1.1029

237 **Dr Clarence Godfrey (1867–1948)**, c. 1916 photograph 1.044 (see p. 66)

238 **Government Sanatorium Lara for Alcohol and Drug Inebriety** Melbourne: Albert J Mullett, Government Printer, for the Department of the Chief Secretary, 1918 4.094 (see p. 73)

**STATE LIBRARY OF VICTORIA**

239 TP Bennett **Soldier receiving dental treatment, Mena Camp, Egypt**, 1915 photographic print from glass lantern slide H83.103/149 Gift of RP Bennett, 1983, TP Bennett Collection (see p. 133)

**PRIVATE COLLECTIONS**

240 **Herbert ‘Ginger’ Hunter (1881–1915)**, 1904 photograph 20.0×15.0 cm Dr Bill Armstrong Collection (see p. 127)

241 Wilkinson **Bayonet in sheath**, 1908 metal and leather 57×4 cm irregular (bayonet); 45×4 cm irregular (sheath) inscribed Wilkinson 1908 Collection of Mark Cook Used during World War I by British soldier William Lowe (1895–1975, grandfather of Mark Cook).

242 AG Butler **Official history of the Australian Armed Services 1914–18, vol. 3: Problems and services** Canberra: Australian War Memorial, 1943 Collection of Mark Cook

243 Lieutenant Robert Murray Gillies (1897–1989) **Diary**, 1918–21 pen and ink on paper in leatherette cover 20.0×13.5 cm Courtesy Dr R Ian Gillies (see p. 135)

244 William Henry (Will) Dyson (Australian, 1880–1938) **Major Kenneth Russell (1885–1945) attending to a patient at Queen’s Hospital, Sidcup, Kent, during World War I**, c. 1917 pencil on paper 21.0×29.0 cm Courtesy Mary and Ken Russell The Russell Collection (see p. 129)

245 **Order of St Sava (third class) awarded by King Alexander of Serbia to Dr Mary C De Garis (1881–1963)**, September 1918

metal, enamel and ribbon 5.0×4.0 cm (medal); 12.5×4.0 cm (ribbon) Collection of Kathy M Hancock (see p. 109)

246 **Two medals awarded by the British Government to Dr Mary C De Garis (1881–1963)**, February 1917 59.0×42.0×4.5 cm (frame) **British War Medal** 3.5 cm diameter (medal); 8.0×3.2 cm (ribbon) **Allied Victory Medal** 3.5 cm diameter (medal); 8.0×3.5 cm (ribbon) Collection of Kathy M Hancock

247 Yvonne Rosetti (French) **Captain Arthur Poole Lawrence (1893–1966)**, 1919 graphite and crayon on paper 41.5×30.0 cm (image); 59.0×46.5×3.5 cm (frame) signed *Yvonne Rosetti, / 1919 / [Charleroi]* Collection of Nicholas Anderson, grandson of Captain Arthur Poole Lawrence (see p. 141 and front cover)

248 Carl Zeiss (Jena, Germany) **Binoculars**, 1917 metal and glass 11.8×12.0×5.0 cm stamped *Femglas 08 / No. 31227 / CARL ZEISS JENA / K / V 1917* Collection of Peter Sutherland Anderson, grandson of Arthur Poole Lawrence Collected by Captain Arthur Poole Lawrence (1893–1966) during World War I. German officers were issued with this type of binocular from 1908.

249 **World War I service medals awarded to Captain Arthur Poole Lawrence (1893–1966)**, 1918 metal and cloth **Military Cross** 4.0×4.5 cm (medal); 3.0×4.0 cm (ribbon) **British War Medal** 3.5 cm diameter (medal); 4.0×3.2 cm (ribbon) **Victory Medal** 3.5 cm diameter (medal); 5.0×3.5 cm (ribbon) **King George V Silver Jubilee Medal** 3.0 cm diameter (medal); 5.0×3.0 cm (ribbon) Collection of Lawrence family

250 Captain Arthur Poole Lawrence (1893–1966) **Diary extract: ‘Life in a rabbit warren’**, n.d. ink on paper 21.0×15.0 cm Collection of Susan Gribben, granddaughter of Captain Arthur Poole Lawrence Two undated pages of Lawrence’s diary, left with Auntie Laurie in England for safekeeping.

251 Captain Arthur Poole Lawrence (1893–1966) **‘71 on sick parade’: letter written on board the troop ship Ballarat after leaving port of Sierra Leone**, 31 March 1917 ink on paper 21.0×15.0 cm Collection of Susan Gribben, granddaughter of Captain Arthur Poole Lawrence

252 Captain Arthur Poole Lawrence (1893–1966) **Letter written on Anzac Day after the troop ship Ballarat was torpedoed**, 25 April 1917 ink on paper 21.0×15.0 cm Collection of Susan Gribben, granddaughter of Captain Arthur Poole Lawrence

253 Captain Arthur Poole Lawrence (1893–1966) **‘All I lost’: list of items that AP Lawrence lost in sinking of the troop ship Ballarat**, 25 April 1917 ink on paper 14.0×18.0 cm Collection of Susan Gribben, granddaughter of Captain Arthur Poole Lawrence

254 Captain Arthur Poole Lawrence (1893–1966) **Letter describing a day’s work as a doctor**, 23 January 1918 ink on paper 21.0×14.5 cm Collection of Susan Gribben, granddaughter of Captain Arthur Poole Lawrence

255 **Pressed poppies and forget-me-nots, with envelope**, 1918 pressed flowers on paper 14.0×8.0 cm Collection of Susan Gribben, granddaughter of Captain Arthur Poole Lawrence

256 Captain Arthur Poole Lawrence (1893–1966) **Letter referring to pressed poppies and forget-me-nots sent in earlier letter**, 22 April 1918 ink on paper 22.5×17.5 cm Collection of Susan Gribben, granddaughter of Captain Arthur Poole Lawrence

257 Captain Arthur Poole Lawrence (1893–1966) **Letter referring to ‘suffering from Trench Fever’**, early June 1918 ink on paper 22.5×17.5 cm Collection of Susan Gribben, granddaughter of Captain Arthur Poole Lawrence

258 Amos Walter Bowman (1881–1959) **Diary**, 1915–18 ink on paper 20.0×13.5 cm Collection of Ross Scott, grandson of Amos Walter Bowman

259 Amos Walter Bowman (1881–1959) **Notebook**, 1915–18 ink on paper 20.0×13.5 cm Collection of Ross Scott, grandson of Amos Walter Bowman

260 Sir William Johnston (1887–1962) **Diaries**, 1915–19 pen and ink on paper in leatherette cover 12.0×8.2×1.5 cm (5 books) Collection of descendants of WWS Johnston

261 Robert Prenzel (1866, Prussia – 1941, Australia) **The H.H. Hunter memorial shield**, 1920 wood and bronze 91.0×68.0×5.0 cm Inscription includes *IN MEMORY OF HERBERT HUMPHREYS HUNTER, CAPT 7TH BAT, A.I.F. / D COY, 1ST DIVISION ... PRESENTED TO THE VICTORIAN AMATEUR ATHLETIC / ASSOCIATION BY HIS FRIENDS & FELLOW ATHLETES / FOR PERPETUAL COMPETITION AT THE ANNUAL / TRACK CHAMPIONSHIP SPORTS. / MELBOURNE, JUNE 1920* Victorian Amateur Athletic Association Collection

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**Professor Sir Harry Brookes Allen, MBBS, MD** (1854–1926), graduated MB from the University of Melbourne in 1876, MD in 1878 and BS in 1879. In 1882 he was appointed professor of descriptive and surgical anatomy and pathology, and served as Dean of the Faculty of Medicine in 1886–90 and 1896–1924.

**Professor Emeritus Henry F 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.

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**Dr Ross J Bastiaan, AM, RFD, MDSc, LDS, MSc, FRACDS, FDS, RCS (Edin, Hon), FRACDS (Hon), MRACDS (Perio), FICD, FADI, FPFA**, trained as a dentist in Melbourne and periodontist in London. A private practitioner for 40 years, he taught at the University of Melbourne Dental School, was president of the Royal Australasian College of Dental Surgeons, director of Odyssey House Melbourne, deputy chairman and council member of the Australian War Memorial and an RSL life member. He has

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**Dr Edward Thomas Brennan, DSO, MBBS** (1887–1953), graduated from the University of Melbourne in 1909 and was resident surgeon at Ballarat Hospital then medical superintendent at Fremantle Hospital. He joined the AIF in August 1914 and was made regimental medical officer in the 11th Battalion. He went ashore at Gallipoli on 25 April 1915 and remained at Anzac until the evacuation, being awarded the Military Cross. He was then transferred to the Western Front. In 1918 he was awarded the DSO and was mentioned four times in dispatches.

**Professor Mark Cook, MD, MBBS, FRACP**, is Sir John Eccles Chair of Medicine in the Department of Medicine, University of Melbourne, and Director of Neurology at St Vincent's Hospital. He is president of the Epilepsy Society of Victoria and his publications include *Epileptic seizures and the EEG*, with Andrea Varvasky and Iven Mareels. Professor Cook chairs the Advisory Committee of the Medical History Museum.

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**Raden Dunbar** has been a school principal, university lecturer and a consultant in Australia, Indonesia and other countries. He holds postgraduate qualifications from universities in Sydney and Melbourne. His second book, *The secrets of the Anzacs: The untold story of venereal disease in the Australian Army, 1914–1919*, was published by Scribe in October 2014.

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**Dr Jacqueline Healy, BA(Hons), MBA, PhD**, is the Senior Curator of the Medical History Museum and Henry Forman Atkinson Dental 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.

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**Dr Ryan Jefferies, PhD**, is Curator of the Harry Brookes Allen Museum of Anatomy and Pathology at the University of Melbourne. He has a PhD in infectious disease, and has previously worked as a Postdoctoral Research Scientist at the University of Bristol, a science editor and communication designer. He has published extensively in the field of molecular parasitology and is currently focusing on contemporary medical museology—recontextualising our ever-changing understanding of biomedical science and the human body.

**Dr Ross L Jones, BA(Hons), DipEd(Melb), MEdStud, PhD(Monash)**, taught the history of medicine and biology at the University of Melbourne, then completed an ARC postdoctoral fellowship at the University of Sydney. A Senior Fellow in the Department of Anatomy and Cell Biology, University of Melbourne, and an Honorary Associate of the History Department, University of Sydney, he is the author of *Humanity's mirror: 150 years of anatomy in Melbourne*.

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**John Lawrence, BBS(Hons), DipEd, MHSc (current)**, is a grandson of Captain AP Lawrence and a keen family historian among a large clan of Captain Lawrence's descendants. A psychologist and educator by training, he works as a consultant, with broad-ranging involvement in health service development, international health promotion and education, environmental sustainability and arts projects.

**Dr Ruth Lee, PhD, DipEd**, has taught Australian studies and academic writing at Deakin University. An avid researcher, she was awarded her PhD by Deakin in 2011. In 2014 her book *Woman war doctor: The life of Mary De Garis* was published by Australian Scholarly Publishing.

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**Professor Geoff McColl, BMedSc, MBBS, MEd, PhD, FRACP**, is Head of the Melbourne Medical School and Professor of Medical Education and Training. He is also a visiting rheumatologist at the Royal Melbourne Hospital and past president of the Australian Rheumatology Association. He has been a member of the Pharmaceutical Benefits Advisory Committee since 2005, chairing its Drug Utilisation Subcommittee since 2013. Professor McColl is currently researching the teaching and assessment of diagnostic reasoning skills in medical students.

**Dr Ross McMullin**, author of the award-winning *Pompey Elliott*, included a biography of Clunes Mathison in his latest book, *Farewell, dear people: Biographies of Australia's lost generation*, which was

awarded the Prime Minister's Prize for Australian History and the National Cultural Award.

**Professor Mike Morgan, BDS(Otago) MDS, GradDipEpidemiology, PhD(Melb)**, holds the Chair of Population Oral Health at the Melbourne Dental School, University of Melbourne. He has been involved in dental education and research in Australia and internationally since 1985. He currently chairs the committee of the Henry Forman Atkinson Dental Museum in the Melbourne Dental School.

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**Louise Murray, BA Fine Arts, BA, Grad Dip**, is an independent curator, and was Curator, Henry Forman Atkinson Dental Museum, from 2007 to 2015. She has held previous curatorial roles at the Medical History Museum, University of Melbourne, and in the Human Mind and Body Program, Museum Victoria.

**Kerry Neale** is a PhD candidate at the University of New South Wales, Canberra. Her thesis examines the medical, physical, social and personal experiences of disfigured veterans of World War I. Ms Neale is an Assistant Curator in the Military Heraldry and Technology Section of the Australian War Memorial, where she has worked in various roles since 2004. She graduated from the Australian National University in 2007 with first-class honours and the University Medal in history.

**Dr David C Noonan** has been a member of the Institution of Engineers, Australia, since graduating from the University of Melbourne in 1975. He has built up major businesses in areas as diverse as cement, steel, wool and textiles. In 2000 he transcribed and edited letters written by his grandfather from the Western Front into a book for his family. The sheer volume of casualties described convinced him that something was amiss with the official figures and he decided to find a way to count them himself. This ultimately led to a PhD and the book *Those we forget: Recounting Australian casualties of the First World War*.

Cat. 5 **Photograph from war service of AIF Warrant Officer Wilfred Leeming (1891–1955)**, c. 1915–18. MHM04487, anonymous gift, 2004, Medical History Museum, University of Melbourne.



**Professor Melanie Oppenheimer, BA, DipEd, MLitt, PhD**, holds the Chair of History at Flinders University, Adelaide. She has been researching and writing on aspects of Australian Red Cross for over 25 years. Her sixth sole-authored book, *The power of humanity: 100 years of Australian Red Cross 1914–2014*, was published in 2014. She is also an Australian Red Cross Ambassador.

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**Dr Heather Sheard, BComm, GradDipEd, GradDepEdAdmin, MA, PhD**, was a secondary school teacher and assistant principal before retiring and completing a master's thesis on the history of Victoria's maternal and child health services, subsequently published as *All the little children: The story of Victoria's baby health centres*. Her PhD thesis, completed in 2013, was a biography of Dr Vera Scantlebury Brown and she is currently researching the contribution of Australian women surgeons and medical officers in World War I.

**Dr Laurence Simpson, OAM, MBBS, MD, FCCP, FRACS**, was a thoracic surgeon until 1996 when, on retirement, he developed education programs

at Melbourne's Epworth Hospital. Throughout this time, and especially over the last 15 years, he has been researching and teaching the history of medicine. In 2014 he co-authored a pictorial display on the development of orthopaedics for the Medical History Museum at the University of Melbourne. He is presently a member of the Committee of Convocation of the University of Melbourne.

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**Air Commodore Dr Rowan Darroch Story, AM, RFD, MDSc, BSc, LLB, PGDipPolLaw, GDLP, FRACDS, FDSRCPS(Glasg)**, is an oral and maxillofacial surgeon, teacher, lawyer and Director-General Health Reserves in the Royal Australian Air Force. He has a private practice in Melbourne, is a senior consultant at Monash Health, and since 1998 has done volunteer surgery in Vietnam, assisting children affected by cleft palate and other mouth and jaw deformities. He teaches law and ethics to dental and medical students and is a sessional Member at the Victorian Civil and Administrative Tribunal.

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The Faculty of Medicine, Dentistry and Health Sciences, University of Melbourne, has three museums: the Medical History Museum, the Harry Brookes Allen Museum of Anatomy and Pathology and the Henry Forman Atkinson Dental Museum.

The Medical History Museum has 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 Trust, London, the museum covers the history of Melbourne Medical School and the broader history of medicine in Australia and internationally.

The Museum of Anatomy and Pathology was established by Harry Brookes Allen in 1882 when he was appointed as professor of descriptive and surgical anatomy and pathology. It was subsequently re-named in his honour, and is now one of the largest medical collections of human remains in Australia.

The history of the dental museum dates back to 1894 with the formation of the Odontological Society of Victoria. Now known as the Henry Forman Atkinson Dental Museum, it has continued to expand and develop and is considered the oldest and most comprehensive dental collection in Australia.

[museums.mdhs.unimelb.edu.au](http://museums.mdhs.unimelb.edu.au)



