

John Connell Gold Medal 1999-

This award is for an eminent structural engineer and is the highest award made by the Structural College of Engineers Australia. It is named after John Connell, principal and founder of John Connell and Associates, which practiced throughout Australasia first as John Connell and Associates, then Connell Wagner Pty Ltd, and now is part of Aurecon. John Connell is considered to have made an outstanding contribution to the practice of structural engineering in Australia and to exporting Australian engineering skills to Asia in the 1970s and 1980s.

Chris Michelmores who was on the board of the Structural College of Engineers Australia, proposed this award which was first awarded in 1999 to Professor Bob Warner.

The winner receives a specially struck gold medal bearing the insignia of Engineers Australia and the likeness of John Connell. The medal is mounted and framed with the recipient's citation.

Criteria:

- The recipient must be (or have been) a practising structural engineer who has made a significant contribution, preferably nationally and internationally, to the standing and prestige of the structural engineering profession.
- The recipient may have a background in consulting engineering, government service, manufacturing, construction, academe, or service with the professional organisation, such as Engineers Australia.
- The recipient does not have to be an Australian national nor reside in Australia. However, if the recipient is not an Australian national, the contribution that he/she has made must have had a significant impact in Australia. It is anticipated that, on most occasions, the award will be made to an Australian national.
- The recipient must have reached a senior position and be widely recognised as holding eminent standing within the profession.



Recipients

- 1999 Professor Bob Warner, Adelaide University
- 2000 Dick Kell AM, Cardno
- 2001 John Nutt, Arup
- 2002 Professor Len Stevens, Melbourne University
- 2003?
- 2004?
- 2005?
- 2006 John Woodside, JCA, CW and JWC
- 2007 Peter Bruechle (BGE)?
- 2008?
- 2009 Mike Fordyce, KBR
- 2010 Emeritus Professor Paul Grundy AM, Monash University
- 2011 Dr Samia Guirguis, CCAA
- 2012 Professor Mark Bradford, University of New South Wales
- 2013 Professor Rob Melchers, Newcastle University
- 2014 Dr Geoff Taplin, AECOM
- 2015 Peter Bowtell, Arup
- 2016 Dr Kourosh Kayvani, CW and Aurecon
- 2017 Professor John Wilson, Swinburne University
- 2018 John Hilton, CW and Aurecon
- 2019 Shan Kumar, JCA, CW, Aurecon, Hickory Group and Sheldon Consulting Engineers
- 2020 Peter McBean, WGA
- 2021 Professor Brian Uy, University of Sydney
- 2022 Peter Airey AM, Airey Taylor Consulting



John Connell with Prof Bob Warner, winner of the 1st John Connell Gold Medal Friday, 26 March 1999

Dr. John William Dennis Connell AM (1913- 2016)

John William Dennis Connell was born in Brunswick on 22 October 1913 and grew up in Melbourne. Already, at age 7, he had decided he was going to be an engineer, an ambition that probably grew out of many weekend visits to construction sites with an uncle. He told his daughter, Barbara, that he used to annoy the workmen working on building sites to see if he could do things to help them. He left school at a young age – probably soon after he turned 14, the legal age one could leave school in 1927 – and went to work and saving every penny to pay the fees at night school. He began to study draughting but had to abandon this during the Depression for a job selling bread from a horse and cart around the streets of Melbourne. Throughout the Depression, he found work wherever he could, augmenting his bread-carting income selling Singer sewing machines door-to-door, among other jobs.

He is said to have gained his early technical education at the Working Men's College (RMIT) in the city, a place with a proud history of educating engineers since 1903.

John Connell was lucky enough to be given tutelage in construction engineering by John Albert Laing, a specialist in the use of concrete, who had himself trained under Sir John Monash, who pioneered modern engineering practice in Australia. (See sections before on the origins of John Connell and Associates back to Sir John Monash and John Albert Laing).

By the time he turned 25, he had married Merlyn (Merle) Gladys Sharpe in 1938. They had three children, Helen, Barbara and John Jnr. Merlyn and John remained together for 66 years until Merlyn's death in 2004, by which time they had nine grandchildren and two great-grandchildren.

According to John Connell, he joined Cyril J. E. Hudspeth Consulting Engineer practice as a draughtsman and commenced in February 1939 when the whole of Victoria was reeling from the effects of disastrous bushfires, which had burnt through much of the Victorian Alps¹. There was a total of three people in the practice.

As discussed later in this history, in August 1942, he joined the AIF in the 57th/60th Infantry Battalion. This unit of the Militia was commonly known as the Merri/Heidelberg Regiment, having been formed from two adjoining Melbourne Militia units in 1930. Its headquarters were in Preston, where John Connell lived, and he probably joined up as a part-time soldier some years before the War.

By early 1941, his provisional militia rank of Lieutenant was confirmed, and in November 1941, he was promoted again to the (temporary) rank of Captain. His battalion "left home" for camp in Seymour in early 1942, then Albury, and then in May 1942 to Casino in Northern NSW. Meanwhile, John Connell remained in Melbourne, still working for Hudspeth, who had a number of Defence contracts, and he may have even had some involvement with the work Cyril Hudspeth carried out in the Northern Territory.

Captain J.W.D. Connell (VX81067) was eventually posted to the 57th/60th while they were still encamped at Casino in northern NSW and training for the rugged jungle warfare to come. Early in 1943, the Battalion was sent to the Goon Valley, behind Port Moresby in New Guinea. After service in areas around Moresby, the 57th/60th, in the 15th Brigade, joined the 7th Division in the Ramu

¹ *The Black Friday bushfires of 13 January 1939, in Victoria, Australia, were among the worst natural bushfires (wildfires) in the world. Almost 20,000 km² (4,942,000 acres, 2,000,000 ha) of land was burned, 71 people died, several towns were entirely obliterated and the Royal Commission that resulted from it led to major changes in forest management. Over 1,300 homes and 69 sawmills were burned, and 3,700 buildings were destroyed. It was calculated that three-quarters of the State of Victoria was directly or indirectly affected by the disaster. The Royal Commission noted that "it appeared the whole State was alight on Friday, 13 January 1939".* https://en.wikipedia.org/wiki/Black_Friday_bushfires_-_cite_note-1

Valley and Shaggy Ridge areas in early 1944 for some pretty torrid battles and significant victories, including the capture of Madang by a patrol from the Battalion on the 24 April.



Captain John Connell (from his family)

The 57th/ 60th returned to Australia in August 1944 to regroup in North Queensland in October. But (by then) Major Connell was no longer with them as he was discharged from the Army in October 1944, presumably had a period of rest and recuperation from the rigours of War or possibly working for Cyril Hudspeth on war projects.

He continued to be a draughtsman for Cyril Hudspeth and Associates before becoming an engineer. After discharge from the Army, he resumed his studies at the Working Men's College (now RMIT), studying structural engineering graduating with (Hon DEng) and at the British Institute of Technology (CEng) through the Institution of Structural Engineers in the UK.

He was initiated into Freemasonry in the Francis Ormond Lodge in 1946.²

² Francis Ormond (1829-1989, was a Scottish born Australian grazier, member of Parliament of Victoria and philanthropist. He founded the Working Men's College of Melbourne which became the Royal Melbourne of Institute of technology (RMIT) and donated the majority of funds towards the establishment of the residential college, Ormond College at the University of Melbourne. Ormond Hall at the Royal Victorian Institute for the Blind, Ormond College at the University of Melbourne, Ormond Road in Geelong in the Melbourne suburb of Ormond or all named after him. The lodge was founded in 1912 by teachers from the Workers Men's College.

As discussed, following, he formed John Connell and Associates (JCA) in 1958 following the death of Cyril Hudspeth, and it then became The Connell Group, and he retired in 1985 before the merger with Macdonald Wagner in 1989.

He was Chairman of Allthill Beef Enterprises; Director of the Gas and Fuel Corporation Victoria, Overseas Projects Corporation Victoria; Vice-President and later board member of the Austin Hospital; Grand Master of the United Grand Lodge Victoria (UGLV) (1986-89), President of the Freemasons Hospital (1986-1988); Member of Faculty of Engineering at the University of Melbourne; Scientific Associate of the Zoological Board of Victoria; Life Governor of Ivanhoe Grammar School; and Elder of the Presbyterian Church.

He led the project to develop the Victoria Parade site into the Freemasons Hospital day procedure centre and hosted a magnificent function at the National Tennis Centre when Freemasonry Victoria celebrated its Centenary in 1989. That function remains one of the biggest Masonic functions ever held. He served on numerous government agencies and also on the RMIT Centenary Foundation. Whilst he was vice president of the Austin Hospital Board, he strongly influenced the development of the Austin Research Institute. He was a Fellow of the Royal Society for Health and a Member of the Royal Society Victoria (the premier scientific body in Victoria). In his spare time, he embraced beef farming and was renowned in the Poll Hereford Society for his innovation in artificial insemination.

In 1980 he was awarded the prestigious Kernot Medal by the University of Melbourne; Monash University presents a John Connell Leadership Scholarship donated by his former company, and the most important award given annually to eminent structural engineers by The Structural College of Engineers Australia is the John Connell Gold Medal which the writer has been lucky enough to have been awarded and indeed thinks that he will be the only Associate of John Connell and Associates to win the award. There are only a few practising engineers left who worked for a JCA and who would be eligible. Shan Kumar, who also worked for JCA, won the medal in 2020. The theatre in the former head office of EA Victoria Division was named the John Connell Auditorium.

In 1987 John Connell was awarded a Member of the Order of Australia in recognition of his service to civil engineering and the community. In 1991, RMIT made him an Honorary Doctor of Engineering.

John Connell retired on 30 June 1985 as Managing Director of the Connell Group after 46 years of work and an outstanding achievement leading a company initially from 11 staff to over 500 staff. He continued as chairman of the Connell Group for several years before retiring from that position in 1988 before the merger with Macdonald Wagner in 1989.

John Connell joins Cyril Hudspeth in 1939

Before the war

Cyril Hudspeth advertised on 31 January for a junior draughtsman and John Connell applied and was awarded the position. His letter of application is shown below.

12 Union St.
Preston 178
2-1-39

Dear Sir,

In reply to your advertisement in the Age of the 31st ult. I beg to apply for the position of Junior Draughtsman.

I am in my final year of Structural Draftsmanship with the International Correspondence Schools and I also study Applied Mechanics at the Preston Technical School which enables me to make the necessary calculations as well as the drawing.

I am twenty-five years of age, but do not let this influence you as to salary required, because I am most anxious to enter the profession and feel sure this difficulty could be overcome, as I am sure I could fill the vacancy with credit. I enclose a sample of my lettering.

Trusting my application will be successful,

I am, Yours Faithfully,
John Connell

As noted earlier, on Monday, 16 February 1939, John Connell began his engineering career as a junior draftsman with Cyril Hudspeth in Melbourne. The staff consisted of 3 people, Cyril Hudspeth, John Connell as a drafter and Jack Foster as a junior drafter. John Connell was recently married.

The office was at 374 Little Collins Street, now demolished. According to the Group News, the building was converted into offices in 1922, and that conversion was the first city project of the firm Stephenson and Meldrum, later to become Stephenson and Turner (S&T) who subsequently became one of the first tenants on the 4th floor where they remained until they moved 44 years later. The

building also included the Wattle Tea Rooms³, one of Melbourne's social centres for over 30 years, and they moved into the first floor with an entrance with a broad staircase down to the ground floor foyer. Another of Hudspeth's clients was A S & RG Eggleston (later Eggleston Macdonald and Secomb)⁴, who was on the second floor until about 1952 when they moved to 215 Grattan St Carlton opposite Melbourne University.

Cyril Hudspeth had only had one job, the Royal Bank (ANZ Bank), on the southeast corner of Collins and Elizabeth Street and Stephenson and Turner were the architects.

The next job was six months later it was to design and document the Australian Pavilion for the New Zealand Trade Fair again for Stephenson and Turner (S&T). Stephenson and Turner made the young Frederick Romberg the Job Captain for the Australian Pavilion⁵ at the 1939 New Zealand Centennial Exhibition at Rongotai on the Wellington foreshore, but before they had finished, the Second World War broke out. The exhibition ran from 8 November 1939 to 4 May 1940 during which over 2.6 million people visited.



The Australian Pavilion Wellington, NZ

3. In 1922 the new Wattle Tea Room, which was opened formally on Tuesday, May 2, Melbourne now boasts the most luxurious and beautiful resort of the kind in Australia. The large number of visitors that afternoon, directly they entered the lounge from Little Collins Street, felt this, and were loud in their expressions of admiration. There were so many present that it was impossible to seat them all at once, and equally impossible to say who was there, but it was a highly representative gathering socially. Each day since there have been such large numbers, especially for afternoon tea, that it has been almost more than the big staff can cope with. So, though the new premises are about three times as large as the old rooms, it already looks as if they are still not large enough. It closed in 1948.

4 In 2000 the firm combined with three interstate practices and, adopted the title Designinc

5 The New Zealand Centennial Exhibition took place over six months from Wednesday 8 November 1939 until 4 May 1940. It celebrated one hundred years since the signing of the Treaty of Waitangi in 1840 and the subsequent mass European settlement of New Zealand. 2,641,043 (2.6 million) visitors attended the exhibition. The New Zealand Government staged the exhibition with assistance from local government, New Zealand industry and the New Zealand public. The exhibition received support from the United Kingdom, Australia, Canada, Fiji, and other Pacific islands who either constructed their own pavilions on site or had displays in one of the exhibition buildings.

Second World War

However, Hudspeth's office had been engaged by the Army in association with Julius Poole and Gibson⁶ of Sydney to design and document the Concord Military Hospital in Sydney, and John Connell was bought back to the office to help with the project. The hospital was designed by the architects Stephenson and Turner,⁷ who had designed most of the major hospitals in Australia from the 1930s to the 1950s. When the job was finished, John Connell was released for war service.

The (Concord) General Military Hospital was erected in 1941–1942 by the Department of the Army and was known as the *113th Australian General Hospital*⁸. When World War II started in 1939, the Army Department identified the site on the banks of the Parramatta River as ideal for building a hospital for the 2nd Military Division to cater for the treatment of members of the armed forces. Construction of the first wards for the 113th Australian General Hospital began in November 1940.

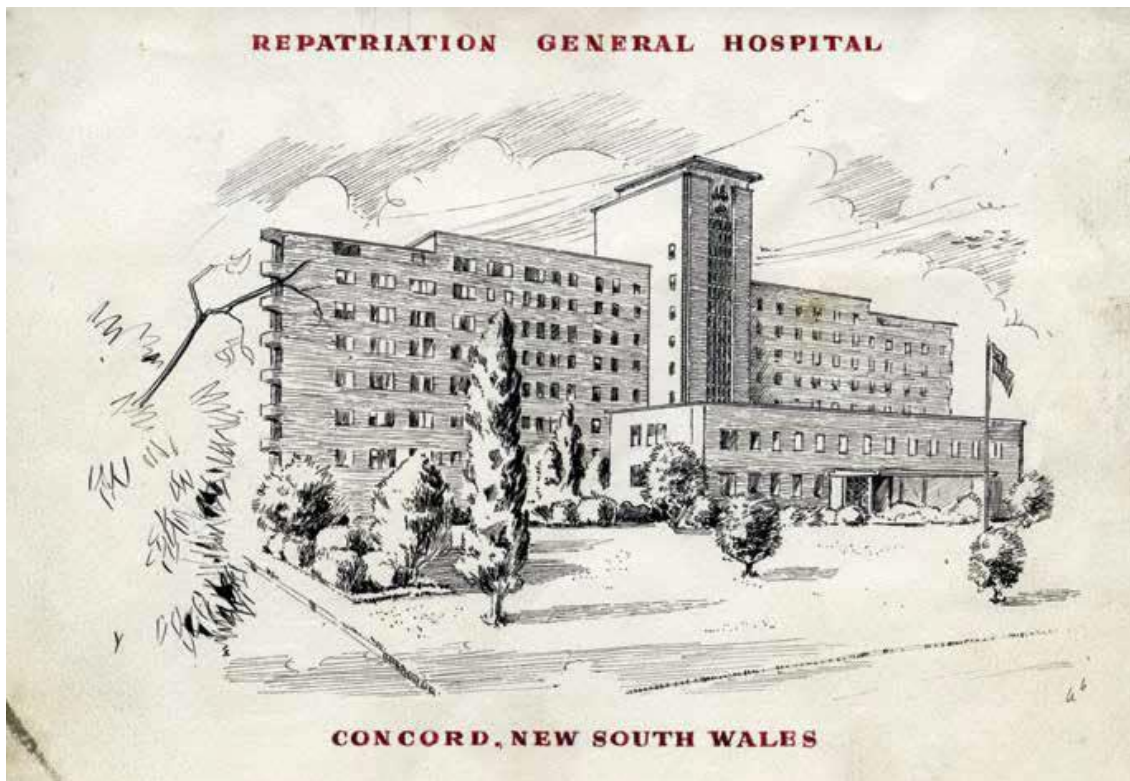
The first patients were admitted on March 7, 1941, and the 113th AGH was opened the following month officially. Throughout the war years, Concord cared for a continuous stream of battlefield casualties, not only from Australia's forces but also Americans, Filipinos, and even Japanese prisoners of War. The dedicated staff treated men with severe wounds and burns, tropical diseases, and suffering starvation. Concord was also a significant training ground for hundreds of nurses and medical staff, many of whom were to risk their own lives, while serving overseas.

As can be seen from the drawings following, it was a large hospital of about 2,000 beds and was the largest hospital in the Southern Hemisphere.

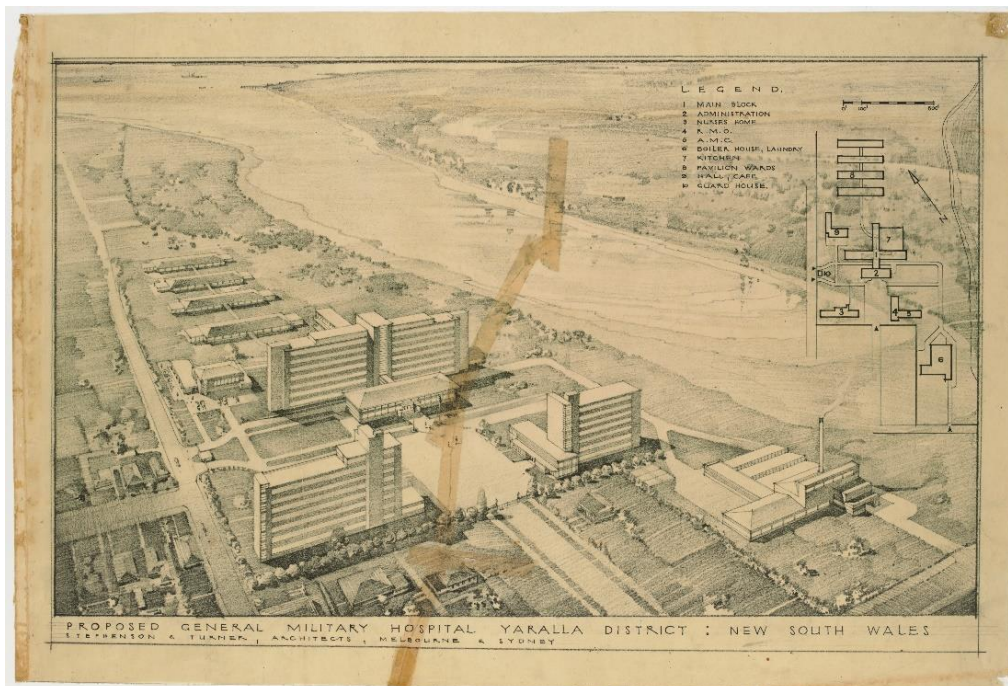
6 <https://collection.maas.museum/object/10954> Julius Poole and Gibson: The firm was established in 1908 by George Alfred Julius (q.v.) and was located in the Equitable Building, George Street, Sydney. The firm had so much work that, within a year, larger office facilities were found at Norwich Chambers, 58 Hunter Street, Sydney. By 1913, the firm was again forced to find more spacious accommodation, and moved to Cubvulla Chambers, Castlereagh Street, Sydney and remained there until 1971 when they moved to 9 Atchison Street, St. Leonards, where they occupied their own building that was built jointly with the architects Rudder, Littlemore and Rudder. In 1988/1989, Julius Poole and Gibson joined with Bass Engineering, North Sydney. The business partnership dissolved in 1993, when Bass did not wish to continue with structural work. There was a mutual agreement that Max Sherrard (q.v.) would continue with structural work under Julius Poole and Gibson, Consulting Engineers. At the time of writing, Sherrard continues to work as Julius Poole and Gibson, Consulting Engineers, while Frank McClelland Matthews (q.v.), Chairman of Directors since 1975, has retired. Work of the partners on major projects in the history of engineering/technology in Australia, including the automatic totalisator, the Ultimo Powerhouse, the Department of Engineering (Sydney University), Central Railway Station, Sydney, the Sydney Opera House, materials engineering, and machinery design.

7 Originally known as Stephenson and Meldrum (1921–1937), Stephenson and Turner (1938–1995) was a prominent Australian architectural firm, best known for the pioneering modernism of their numerous hospital designs of the 1930s to 1960s. Stephenson and Turner were closely involved in the post-war manufacturing revolution in Australia, https://en.wikipedia.org/wiki/Stephenson_and_Turner_-_cite_note-Fisher-2 designing plants for Holden – General Motors plant in Dandenong, Ford, BHP, Fibremakers as well as Australia's first experimental nuclear reactor in Lucas Heights for the Atomic Energy Commission. They applied the same rigorous approach to researching and engaging with state of the art technologies and methods of manufacturing. Their design for the Holden Factory complex (1954–56) in Dandenong featured a completely functional curtain wall system. As well as major buildings in every capital city in Australia, in New Zealand and a hospital in Basra, Iraq, Stephenson and Turner grew to become the largest Australian architecture firm at its time with 300 – 400 staff at its peak. They opened offices internationally in Singapore (1949), New Zealand (1956) and Hong Kong. Stephenson and Turner were one of the many architectural firms that were hit hard by the global economic downturn during the mid-1980s and merged with John Castles to become Castles, Stephenson and Turner in 1995. Since 2000, all Australian operations have closed, with offices operating in New Zealand since 1956.

8 The hospital was commissioned in 1939 as a general hospital for the Australian Army. When completed in 1942, the 2,000 bed Yaralla Military Hospital (113 Australian General Hospital) was the largest hospital in the Southern Hemisphere. The main hospital building (currently known as the Multi Building) was one of the tallest buildings in Sydney when completed and its design won architects Stephenson & Turner the Sulman Award in 1946.



Schematic view of the Concord Repatriation Hospital



Schematic drawing of the Concord Repatriation Hospital

In August 1942, John Connell rejoined the AIF and the 57th/60th Infantry Battalion. He had joined up as a part-time soldier some years before the War. By early 1941, his provisional militia rank of Lieutenant was confirmed, and in November 1941, he was promoted again to the (temporary) rank of Captain. His battalion "left home" for camp in Seymour in early 1942, then Albury, and then in May 1942 to Casino in Northern NSW. As noted above, John Connell remained in Melbourne, still working for Cyril Hudspeth, who had a number of defence contracts, including the Concord Hospital.

Captain J.W.D. Connell (VX81067) was eventually posted to the 57th/60th Infantry Battalion while they were still encamped at Casino in northern NSW and, presumably, by then, training for the rugged jungle warfare to come. Early in 1943, the Battalion was sent to the Goon Valley, behind Port Moresby in New Guinea, and he was promoted to the rank of Major.



AUSTRALIAN WAR MEMORIAL

063145

DONADABU, PAPUA, NEW GUINEA. 1944-01-01. JUDGES OF THE COMPETITION AND MEMBERS OF THE WINNING MORTAR TEAM AT THE 15TH INFANTRY BRIGADE GYMKHANA. IDENTIFIED PERSONNEL ARE: VX144708 PRIVATE H. F. MILLER (1); VX87484 PRIVATE J. YOUNG (2); VX139542 PRIVATE A. E. COULSON (3); VX135917 PRIVATE K. S. GREIG (4); VX81067 MAJOR J. W. D. CONNELL, JUDGE (5); VX7562 CAPTAIN H. G. SWEET, JUDGE (6); VX87473 SERGEANT W. A. PURVES (7).

During the Second World War, John Connell commanded infantry advancing through New Guinea with air, artillery, and engineering support. For part of the advance, he needed to get his force over a series of small ravines, a task involving the construction of temporary timber bridges spanning about 10 feet and able to carry about 5 tons (a light tank) each. He called for his Engineering Officer and asked for the appropriate design etc. After a while, he noticed his Engineer in robust discussion with the Sapper Sergeant. On enquiry, it transpired that they did not have a copy of the "safe load tables" and were unable to size the stringers. Surprised, to say the least, Connell said to the Officer, "You have a degree in engineering?", "Yes, Sir", "Well, surely you can design something simple to go over these ravines". "No Sir, I can't". "Why not?" "Well, Sir, I'm an Electrical Engineer!" Connell said no more but went off to get his famous "Hemi" slide rule. Using a bit of chalk on a piece of tin, he did a rough design which he passed to his Engineer. The astonished officer then asked, "With all due respect Sir, what the hell are you doing in the infantry?"



AUSTRALIAN WAR MEMORIAL

070285

DUMPU, RAMU VALLEY, NEW GUINEA, 1944-02-11. VX108132 LIEUTENANT COLONEL R.R. MARSTON (1), COMMANDING OFFICER OF THE 57/60TH INFANTRY BATTALION, PICTURED WITH VX81067 MAJOR J.W.D. CONNELL (2), THE OFFICER COMMANDING HEADQUARTERS COMPANY.

During the Second World War, Cyril Hudspeth became "*Chief Engineer to the Allied Works Council*", operating in the Northern Territory and Western Australia, while John Connell served overseas with the AIF. It is not entirely clear what the role of the Chief Engineer was or, indeed, if that is the correct title, but he obviously was involved in an important role in the engineering for these projects.

The Allied Works Council was created as a separate entity to the Commonwealth Department of Works under the Department of Interior and established to carry out major national projects essential to the war effort⁹. Two of the projects carried out by Cyril Hudspeth included what is now called the Stuart Highway (the 1100 miles of road from Alice Springs to Darwin, which was cut and

⁹ Established in February 1942, the Allied Works Council was responsible for carrying out any works required by the Allied Forces in Australia during the Second World War. This included providing any equipment, materials or workmen required to carry out these works. Its main functions are to co-ordinate the activities of all the various constructing authorities throughout Australia, and to see that work is allocated to the authority best suited to carry it out in the quickest possible time. It is responsible for the supply of all plant and material necessary for the work to be done. In less than six months it has secured by purchase, impressment, manufacture, or importation nearly £4,000,000 worth of plant. It is responsible for distributing and allotting plant to the various construction authorities in accordance with the priority of the work. It has to arrange for maintenance and replacement of plant, and for the training of operators to keep it in action 24 hours a day when that is necessary. A recent decision of the Chiefs of Staff meant that 5,000 tons of roadmaking and earth-moving plant, together with more than 2,000 men, had to be transferred over distances varying from 1,000 to 2,000 miles. Arrangements were hurriedly made, and in less than a fortnight from to-day, all the plant and all the men will be established in ten camps ready to execute the work. Large-scale arrangements of this kind can be carried out only by a central authority with power to order the movement of plant and labour, and to decide how and by whom the work shall be done.

formed in only 90 days)¹⁰ and the construction of Darwin Harbour¹¹. Most of the consulting engineering companies provided staff for the war effort, with engineers often seconded to various government organisations to assist in projects or some cases, enlisting in the armed forces. Engineers could only enlist if they were engaged in non-essential civil works and had their employer's release.

An interesting aside in the Second World War is the story of the famous Swiss-born architect Frederick Romberg who arrived in Australia in 1938, worked for Stephenson and Turner, and he would have known Hudspeth before the War. Hudspeth had worked as a structural consultant for a number of jobs undertaken by Stephenson and Turner, including the Australian Pavilion for the New Zealand Centennial so he would have known Romberg. As well he had been engaged by Romberg to consult on the Newburn Flats before his internment.

Frederick Romberg was requisitioned by the Allied Works Council (AWC) and sent to Alice Springs in the Northern Territory of Australia, over 2,000 kilometres from Melbourne, to join the Civil Aliens Corps (CAC) on to Katherine, a further 1,200 kilometres. From their isolated camp, the internees were driven to a rocky outpost where they were made to move and break rocks used in the production of road metal for the resurfacing of roads.

Eventually, Romberg's architectural background resulted in a transfer to a better position in Alice Springs, under the care of Cyril Hudspeth as Chief Engineer for the Northern Territory and Western Australia. Back at the drafting boards, Romberg was attached to the Deputy Resident Engineer as the Works Supervisor on a number of projects, including the Royal Australian Air Force building at the local aerodrome. After service in the Civil Aliens Corps with the Allied Works Council in the Northern Territory (1943–44), Romberg returned to Melbourne and spent the rest of the War with the Public Works Department. Naturalised in February 1945, he returned to practice.

Frederick Romberg, in 1939 formed a partnership with Richard and Mary Turner Shaw and their firm designed three modernist apartment blocks constructed at the beginning of World War II -

10 *Where the main railway line ends at Alice Springs, "capital of the Centre," the great road begins. It continues for a thousand miles northward, through some of the most interesting and some of the most desolate country in all Australia. Generally, its route lies close alongside the Overland Telegraph, which in turn almost follows the trail biased 80 years ago by the intrepid John McDonall Stuart. Australia's proudest road is now operating. Our engineers have excelled themselves, setting a world standard for speed, organisation, and thoroughness, and establishing probably a record by building 306 miles of highway through virgin scrub and desert in less than 90 days. This was the most spectacular and inspiring development move ever staged inland. Tennant Creek was joined by an 18-foot highway with Birdum. The railheads from Adelaide and Darwin, 600 miles apart, were joined by an all-weather road in a neck and neck race with the wet season. This is the news behind the bald announcement that a little more than £2,000,000 has been needed to complete this vital inland artery. The Department for the Interior, having planned the road, approached the Main Roads Departments of New South Wales, Queensland, and South Australia to induce them to share the construction. Volunteers were called from the departments: far more than were needed came forward.*

11 *It is not clear what work Hudspeth was involved in Darwin. However, construction work in Darwin harbour included a submarine net and new port facilities. By 1 October 1940 work on the boom depot was virtually complete with the exception of the railway branch lines that were required to be laid across the yard. Around this time, part of Fort Hill was also demolished to make room for a road and workspace at the end of the new concrete jetty being built by Hornibrook and Co. This was not completed until mid-1941. A concrete net slab on which the nets were to be made was also poured near the jetty and was ready for use by September 1940. A further necessity was the need for a concrete launching trough down to the water that allowed nets to be slid into the harbour and then towed out to the boom net location by one of the boom working vessels. Bill Brown who later set up WP Brown and Associates in Melbourne was seconded to the Navy as a civil engineer to work on the design of antisubmarine defences including a 5 km submarine boom in Darwin Harbour and probably worked with Cyril.*

*Newburn*¹², 20 Queens Road, Melbourne and *Yarrabee*¹³ in Walsh Street, South Yarra. The practice of Romberg and Shaw was, however, short-lived, ending in 1941. In 1942 Romberg prepared plans for the Stanhill Flats, which was delayed by wartime building restrictions and only completed in 1950. Stanhill Flats is regarded as Romberg's masterpiece and a "*landmark of post-war International Modernism in Australia*". In 1953 Romberg entered into a partnership with Roy Grounds and Robin Boyd, forming one of the most influential architectural practices in Victoria in the post-war era.

The architectural practice of Grounds, Romberg and Boyd (colloquially known as Gromboyd) was a very successful architectural practice in Melbourne until it broke up in 1962. Sir Roy Grounds started designing the Victorian Arts Centre, and JCA were involved in many of those projects over the years with various members of that practice that had changed over the years. *The Australian Dictionary of Biography on Frederick Romberg* stated that the eminent engineer John Connell said that he was the 'most complete' architect he had ever worked with (Edquist 2000)¹⁴.

In 1943 the magazine *Building and Engineering* had an article about the construction of a munitions factory, but they did not say where it was and that it involved four state instrumentalities and a municipal authority that cooperating, under the direction of the superintending engineer, a 40 year old, dynamic Cyril Hudspeth, to build the project.

Hudspeth was called to Melbourne for what he anticipated would be a well-earned rest after completing another gigantic Allied Council project. Mr. Hudspeth was told of the difficult problem facing the designers of the buildings composing part of the project and given the job of finding a solution. After two weeks, he succeeded. Then he was told to proceed to the site chosen for the plant and build the whole undertaking. Gathering around him a team of experts, he "*went to it.*" The results are daily taking shape in the maze of structural work now intermingled with a number of trees. The project was most likely to have been the aerodrome at Tocumwal on the New South Wales Victorian border or, less likely, the munitions factories at Maribyrnong in Victoria or at Elizabeth in South Australia, but the article does not say where the site was.

12 *Newburn* was designed in 1939 as a four storey investment block of bachelor flats. The design was Frederick Romberg's first independent commission, carried out in partnership with former Stephenson & Turner employees Richard Hocking and Mary Turner Shaw.

13 *Yarrabee Flats* is a building located at 44 Walsh street, South Yarra, Melbourne, Australia consisting of five flats. Built in 1940. it was designed by the Australian architecture firm, Romberg & Shaw, (Mary Turner Shaw and Frederick Romberg) and is known for introducing European Modernist architecture into flat development in Melbourne.

14 Harriet Edquist, 'Romberg, Frederick (1913–1992)', *Australian Dictionary of Biography*, National Centre of Biography, Australian National University, <http://adb.anu.edu.au/biography/romberg-frederick-16350/text28309>, published online 2016, accessed online 9 March 2020.



Tocumwal airport, NSW

However, the author has in his possession a Handbook of Structural Timber Design prepared by the Council for Scientific and Industrial Research of the Commonwealth Government, published in 1941 (cost 5 shillings and sixpence) with Hudspeth's signature on the flyleaf stating that he was the Resident Engineer for the Department of Interior at Tocumwal, as shown previously which suggests that the project was at Tocumwal ¹⁵, and it was the airport.

The aerodrome was part of the so-called Brisbane Line ¹⁶.

15 19 February 1942 - Australia was under attack, with Japan launching the first of 64 air raids on Darwin. Invasion appeared imminent and before the arrival of the American Forces, we were virtually defenceless. It seemed that N-W Australia would have to be sacrificed. In an effort to concentrate our defences in the S-E of the continent, the Brisbane Line strategy was considered, a final defence line drawn between Brisbane and Melbourne. Tocumwal, being right on the Brisbane Line, was selected for a heavy bomber base for the United States Army Air Corps. So great was the emergency, there was no time to give landowners notice. Tocumwal property owners were shocked to be given just 24 hours to vacate and then see their properties immediately bulldozed. 2700 construction workers of the Allied Works Council began creating the huge airbase and working day and night, had a runway ready for first landings in 5 weeks. They commandeered farm tractors, trucks, horses, anything to frantically complete the task. Over an area of 5,200 acres, they built 4 runways up to 1,850 metres in length, 112 kms of roadways and taxiways, 6.4 kms of branch railway line to a new rail platform on the field, 7 giant hangars to house the big Liberator bombers, 600 other buildings for hangars, workshops, mess halls, sleeping quarters, administration, and a 200 bed hospital. In just 16 weeks, after expenditure of A\$6 million, they built, in Tocumwal, the largest aerodrome in the southern hemisphere.

16 The "Brisbane line" was an alleged plan to abandon Northern Australia in the event of a Japanese invasion. The allegation was made during an election campaign in October 1942 when Edward Ward, the Minister for Labour and National Services accused the previous government of planning this strategy. The accusation was unsubstantiated by Ward and firmly denied by Menzies and all members of the previous government. Curtin's initial failure to dismiss the allegation and General Douglas MacArthur's mention of it at a press conference in March 1943 led to the controversy gaining much momentum. Ward made repeated charges against the Menzies-Fadden government throughout 1943 and backed up his assertions by referring to a missing document. The allegations created much public controversy and led to a Royal Commission of Inquiry in June 1943. Mr Justice Lowe was appointed Royal Commissioner. The terms of the commission were to focus on whether any document concerning the so called "Brisbane Line" was missing from the official files and if so, what was the nature of this document. The Royal Commission found the documents to be complete and that no such plan had been official policy under the Menzies government.

Another report stated the following: -

A former sporting area "somewhere in Australia" will soon become the centre of a large munitions producing plant. Where once cattle grazed in peace and content, some 2,000 men are now fighting against nature, dust, and time to complete construction "on time" of a plant to cost several hundred thousand pounds that will be a mighty factor in winning the war against Japan and Germany.

When members of the Civil Constructional Corps of the Allied Works Council began work on this vital project last October, the area, comprising hundreds of acres, was like a sylvan garden set in the bush. But the demands of war are inexorable, and that little paradise of nature is now throbbing with the ceaseless movement of men, mechanical machines and devices of all kinds, motor trucks, railway engines, and wagons—and the in-valuable horse. Once again, man and machine are triumphing over nature.

This big job required careful planning and vast organisation. Before actual construction work began, a small army of men was employed in the erection of office buildings for staff, sleeping quarters, mess huts and kitchens, storerooms, &c, to provide for more than 2,000 workers. It is now the largest camp in Australia, where the AWC has been called upon to accommodate, feed, and entertain the men on the

job. There is also a recreation hall, with writing and recreational facilities provided by the Salvation Army, a post office, telephone boxes, and a well-stocked canteen. Under the energetic guidance and all-seeing eye of Mr Cyril Hudspeth, engineer in charge of the work, remarkable progress has been made with the construction of the munitions plant in the last 5 months, and, recognising his firm grip on every detail of the immense project, no one can doubt that it will be ready for operation by the date set. Already, with the aid of the steam shovel, earth scoops, ploughs, dragline excavators, bulldozers, tractors, and a variety of other mechanical devices, the area has been completely transformed, but very wisely, most of the trees have been preserved in their original state.

One of the earliest undertakings was to construct a rail line from a nearby mainline right into the heart of the site. This involved the making of cuttings through a number of sandhills, but the line has been invaluable in transporting large quantities of building materials to the job. Seven and a half miles of roads, 2 miles of narrow gauge tramway lines, 4 miles of concrete tracks, 10 miles of steam pipes, and many miles of water pipes are being constructed. The whole of the area will be sewerred.

Many buildings forming part of the comprehensive munitions plant are now taking shape. The character and variety cannot be enumerated, but altogether about 180 buildings will be erected. One of these will be of 4 storeys and another 60ft high. Men from many parts of the Commonwealth are engaged on the constructional work in 10-hour day shifts.

As the works and employees will require 3,000,000 gallons of water a day, a special pumping plant is being erected some distance away to draw supplies. The water will be treated and purified by means of a filtration plant said to be the largest on the mainland of Australia—and then taken through underground mains to the factory area. Storm waters collected on the site will be diverted through 54in pipes to a nearby billabong.

When this vital defence plant is in full operation it will employ more than 1,000 workers. Construction of homes for employees is expected to begin soon.

While Ward's allegations were unfounded the War Cabinet had put in place strategies prioritising defence for vital industrial areas in time of war. The plans were well known to members of parliament and while they were not connected to Ward's charges, they did form part of his belief in the existence of a Brisbane Line. Ward's allegations were constructed from these ideas as well as evacuation policies and existing plans for a scorched earth policy.

19th February 1942 - Australia was under attack, with Japan launching the first of 64 air raids on Darwin. Invasion appeared imminent, and before the arrival of the American Forces, and Australia was virtually defenceless. It seemed that N-W Australia would have to be sacrificed. In an effort to concentrate our defences in the S-E of the continent, the Brisbane Line strategy was considered, a final defence line drawn between Brisbane and Melbourne. Tocumwal, being right on the Brisbane Line, was selected as a heavy bomber base for the United States Army Air Corps. So great was the emergency, there was no time to give landowners notice. Tocumwal property owners such as the Hawkins, Keough, Hearn, Batters and Thorburn were shocked to be given just 24 hours to vacate and then see their properties immediately bulldozed. Two thousand seven hundred construction workers of the Allied Works Council began creating the huge airbase and, working day and night, had a runway ready for first landings in 5 weeks. They commandeered farm tractors, trucks, horses, anything to frantically complete the task. Over an area of 5,200 acres, they built 4 runways up to 1,850 metres in length, 112 kms of roadways and taxiways, 6.4 km of branch railway line to a new rail platform on the field, 7 giant hangars to house the big Liberator bombers, 600 other buildings for hangars, workshops, mess halls, sleeping quarters, administration, and a 200 bed hospital. In just 16 weeks, after the expenditure of A\$6 million, they built, in Tocumwal, the largest aerodrome in the southern hemisphere.

There was also talk of invasion by the Japanese through Tasmania, and the following is a newspaper report of that concern.

In 1942, Tasmania seemed to be in grave peril. In December of 1941, the Japanese bombed Pearl Harbor. On 15 February 1942, Singapore fell to the Japanese, and 130,000 people were taken prisoner (including 15,000 Australians). Four days later, the Japanese bombed Darwin. On March 4, the Japanese raided Darwin again, this time strafing it with machine gunfire. Being an island on the edge of the world didn't mean you were safe – the Japanese invaded Alaska's Aleutian Islands and bombed Dutch Harbor in 1942. Tasmania might be next in line, and men who had been in service in the Pacific decried the 'shocking lack of shelters,' as Mr. N.J. Dutton told the Examiner,

gallons of water a day. This will be purified, processed and reticulated throughout the area by gravitation from a 300,000 gallon standpipe or reservoir.

Drawn from the supplying source by two 50 h.p. electrically-driven pumps, the water will pass through processing and filtration plants, which are claimed to be the largest in Australia.

From two boiler houses, ten miles of piping will carry steam to the various sections of the plant. Another maze of pipeline will compose the air-conditioning system vital to the regulation of temperatures in certain of the factories.

Four State instrumentalities and a municipal authority are co-operating, under the direction of the Superintending Engineer, 40-year-old, dynamic Cyril Hudspeth, to build the project.

Called to Melbourne for what he anticipated would be a well-earned rest after completing another gigantic Allied Works Council project, Mr. Hudspeth was told of the difficult problem facing the designers of the buildings composing part of the project and given the job of finding a solution.

After two weeks he succeeded. Then he was told to proceed to the site chosen for the plant and build the whole undertaking.

Gathering round him a team of experts he "went to it."

The results are daily taking shape in the maze of structural work now intermingled with the numerous trees on the area.

Another feature of this project is the fact that the Civil Constructional Corps camp on the site is the largest single camp yet controlled by the Allied Works Council. It accommodates more than 2000 men.

Divided into two sections, it is subdivided into huts each housing 32 men. The huts are in turn partitioned into eight dormitories, each containing four beds. All huts have wooden flooring.

There is separate kitchen and mess for every 200 men.

The camp canteen has a turnover of more than £1,500 a week. There the men can purchase tobacco, cigarettes, chocolate, soft drinks, soaps, razor blades, all kinds of working clothing and many other items long lost to the ordinary civilian.

It also has its own post office complete with three telephone booths and telegram facilities. Until recently, when the job was taken over by a P.M.G. staff, the post office was run by voluntary labor within the camps.

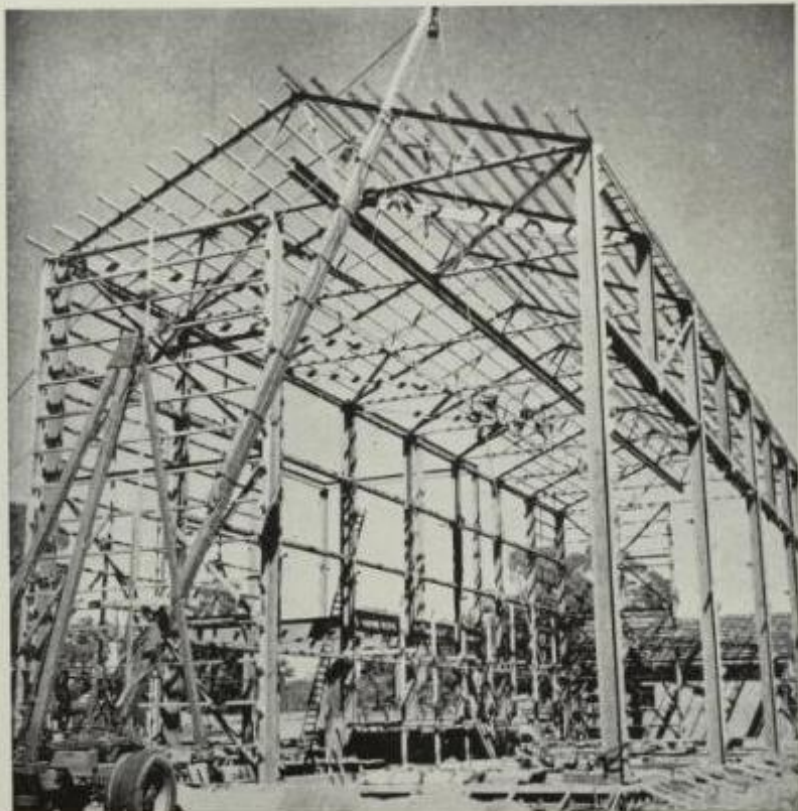
At night the recreation halls are crowded with men either playing cards or ping pong, listening to the wireless or to a carefully rehearsed concert staged by the camp entertainment committee.

A fully-equipped eight-bed medical aid post staffed by two Allied Works Council nurses cares for the injured or sick workmen. It is visited regularly by a local doctor.

Among the many tradesmen engaged on the job are bricklayers, carpenters, steel bands, riggers, pipelayers, plumbers, painters, tractor and lorry drivers, fitters, turners, mechanics, plasterers, tile layers and laborers. The youngest is 18 and the eldest 65.

By the combined efforts of the hustling, efficient young engineer, his staff of experts and the skill of the tradesmen and laborers the Allied Works Council will once again deliver the goods "on time."

Steel has been superseded by wood in the structural work of this tall building on the munition plant site.



From the magazine, Building and Engineering 1943

After the war

World War II ended in the Pacific on 2 September 1945. According to the war service records, John Connell was discharged on 27 Oct 1944 from the 57th/60th Battalion. Even at the end of the war, there was an extensive period of demobbing, and it took some time for Australia to return to something like normal life.

Cyril Hudspeth's practice resumed after the Second World War at the end of 1946 under the name "*Cyril J. E. Hudspeth*", working in an economy severely restricted by material shortages and an economy still returning to civilian life. The office was still located at 374 Little Collins Street, Melbourne.

During the next eight years, the office became involved in a number of significant industrial developments, including GMH Fisherman's Bend, Kraft at Port Melbourne, Packaged Power Stations at Geelong, Ballarat, Warrnambool and Mildura, Shell Oil Co. at Geelong, Standard Vacuum Refinery at Altona, MB Johns at Ballarat, and various works at Yallourn.

Hospital building recommenced, and work was carried out at Prince Henry's Hospital, Royal Melbourne Hospital, St. Vincent's Hospital, Box Hill Hospital, Jessie McPherson Hospital, Sandringham Hospital, and Royal Hobart Hospital, to mention only a few presumably under the auspices of Stephenson and Turner. They must have been a major source of work.

On the death of Charles Smart of Bates Smart and McCutcheon in 1949, most of the structural work was then carried out by Cyril Hudspeth and Associates¹⁷.

The heritage listed Stanhill Flats¹⁸ for Stanley Korman¹⁹ in 33-34 Queens Road, Melbourne, became a landmark early in this period, and Hudspeth designed the structure. The renowned emigre architect Frederick Romberg designed the building, and he had worked under Cyril Hudspeth during the War for a period, as previously noted.

In 1945 Stanley Korman formed a family company, Stanhill Pty Ltd, and its name derived from a combination of his name and that of his brother. In 1953 Stanhill acquired the Chevron Hotel²⁰ near Queens Road, and in 1955, Scott's Hotel in the city. The Korman family bought up several thousand acres at Broadmeadows in 1954-58 and 750 acres (304 ha) at Heidelberg in 1958 for housing developments. At Surfers Paradise, Queensland, Korman developed Chevron Island and the Paradise Island canal estate and built the first stage of the Chevron Hotel (opened in 1958). By 1959 construction of the Chevron Hotel, Sydney, and further stages of the Surfers Paradise hotel were underway. In 1964 in a credit squeeze, Stanhill went into receivership, and Stanley Korman was sentenced to jail for 6 months. It is assumed that some fees were never paid to Cyril Hudspeth.

One of the most notable projects from an engineering viewpoint was the reconstruction of the old Age Building in Collins Street in Melbourne. The building at 233 Collins Street turning the ornate, five

¹⁷ Bates Smart, *150 Years of Australian Architecture*, Published Mar 31, 2014.

¹⁸ Stanhill is a nine storey block of apartments, designed in an interwar Functionalist style by renowned emigre architect Frederick Romberg. Considered to be the most impressive of his works, it was designed in 1942 for Stanley and Hillary Korman Stanhill Pty Ltd but not completed until 1950. The flats are of finely executed off-form concrete and glass.

¹⁹ Peter Spearritt and John Young, 'Korman, Stanley (1904-1988)', *Australian Dictionary of Biography*, National Centre of Biography, Australian National University, <http://adb.anu.edu.au/biography/korman-stanley-12755/text23005>, published first in hardcopy 2007, accessed online 11 November 2019.

²⁰ On the south-eastern corner of St Kilda Road and Commercial Road, Prabran, the Chevron Hotel with its prominent corner tower was completed in a record 18 weeks in 1934 by E.A. Watts to a design by architect Leslie M. Perrott. Named after the original house on the site, it was the first 'country club' hotel in Australia, a low-rise, non-licensed residential hotel in a garden setting away from the city, incorporating an outdoor swimming pool, gymnasium and tennis court. The 200-room hotel also offered en suite bathrooms (a feature then largely absent in Australian hotels), rooms which could be easily converted into suites, and garages for guests' cars. In later years the hotel became better known for its nightclub. It was eventually purchased by the Alfred Hospital for use as a nurses' residence, and in 2004 awaited possible development as high-rise apartments.

storey Victorian building into a 10- storey glass and concrete skyscraper, all happening around the reporters and printers and editors who continued getting out their newspapers every day despite the chaos they were working in. The main thing that concerned the builders was that they had to completely reconstruct the whole building without causing the giant presses to stop for a single day.

Dave Millis joined the firm in 1949, Ian Greig in 1951, Gerry Smith in 1952, Stan Johnstone in 1953, Ken Blight in 1954 and John Wilson about this time also.

In January 1951, Ian Greig was interviewed by John Connell and was offered a position as a draughtsman, which he accepted. Ian was born in Tasmania, but his mother had moved to Melbourne, and Ian had become interested in engineering. Ian had applied to do an engineering degree at the RMIT in 1951 and had been accepted, but after being offered a job by John Connell, he took that job instead and was going to complete his degree part-time. However, at the end of 1951, he realised that it would take many years to complete his degree, so he took a leave of absence and completed a large part of his degree in 1952, leaving only a few subjects to complete over the next few years. In 1952 Ian did part-time work during holidays for Cyril Hudspeth. He recommenced full-time work with Cyril Hudspeth in early 1953 after John Connell re-employed him. The economy was also starting to pick up after the effects of the Second World War. Ian completed his degree in 1954 and was involved in the design documentation and inspection of 2 major spinning mills in Victoria and New South Wales and hospitals in Iraq.

In 1952 Hudspeth went to Europe, presumably on a study tour.

The firm in 1953 was then known as *Cyril J. E. Hudspeth, Chartered Engineer*. Its offices were still at 374 Little Collins Street Melbourne, and the telephone number was MU 3362 ²¹.

In January 1953 Stan Johnson joined as a draughtsman. Included Cyril Hudspeth as principal, John Connell as an associate, Gerry Smith as an engineer and David Millis, Frank Harvey, Ian Greig and Stan Johnson as draughtsmen. Ian Greig was away on National Service²² in early 1953.

The main office in 1953 was located on the second floor with a variety of wooden desks of all shapes and sizes and the staff dressed in the selection of grey dust coats. Air-conditioning was by opening the windows and heating in the winter was a kerosene heater. The office she had a part-time secretary on the third floor with the architects. There was one telephone line in +3 extensions and plan printing was blueprints.

The following words have been mainly written by the late Stan Johnstone with some minor additions and minor corrections by the author about working with Cyril Hudspeth.

"John Connell was involved mainly in the design and supervision of the larger projects as well as managing the day-to-day running of the office. Gerry Smith had joined the firm late in

²¹ Up until about 1960, telephone numbers were only 6 digits, and the first 1 or 2 numbers were shown as letters, but they actually represent numbers. For instance, MU meant 67 together with 3362 made the number as 673362. However, the circular dial of the phone had those letters on it.

²²Compulsory military training for young Australians was reintroduced in 1951 by the Liberal and Country Party alliance Government. It was the third such scheme to have existed in Australia since Federation. Eighteen-year-old men were required to undertake 176 days of military training as part of the National Service scheme. Those who elected to undertake their training in the army could break up their training requirements into two periods, 98 days in the Australian Regular Army and 78 days in the Citizen Military Forces (CMF). Those who elected to undertake their training with the Royal Australian Navy, or the Royal Australian Air Force had to complete their 176 days in one stretch. The scheme was criticised as being irrelevant to modern defence needs, with skill was becoming more important than numbers. The scheme was also costly for the Regular Army, as manpower resources and funding had to be diverted from ongoing operational requirements to support the recruitment and training of short-term personnel. In 1959 the scheme was abolished.

1952 (died 2018), and apparently, at the time, it had been a large step for the firm to decide whether it could afford the services and find the work for a third Engineer.

However, the mainspring of the office was "the Chief" - Cyril Hudspeth. He devoured work at an amazing rate, vast numbers of drawings and preliminary sketches being produced at his home each night or at his hide-out at the weekends, then to be brought to the office the next day for completion by the draftsmen. Most of his day was spent on site visits, discussions with clients and 'phone calls, etc., and while in the office, distributing the work amongst "his boys".

Frequently in the evening, someone would be needed to help him carry the enormous bundle of drawings and bulging briefcase (or two) to his car. Back next morning came the results of the evening's activity -drawings to be finished off and issued, other jobs to have plans framed up and prepared ready to be designed the following night -and so it went on.

Mr. Hudspeth was greatly respected and admired by the clients for his ability as an engineer, as a man to get a job done, as well as for his personal integrity.

His working "bible" was a black loose leaf binder of tables produced by himself for steelwork, concrete, and timber design as well as other miscellaneous information. However, for the routine design, these were seldom referred to, having been memorised through such frequent use over so many years.

At this time, there were practically no multi-storey office buildings being built in Melbourne. However, during these years, JCA was engaged for the design of Melbourne's first "glasshouse" -100 Collins Street, the first stage of the Commonwealth Centre Complex in Spring Street, and the "old" MMBW Head Office in Little Collins Street. The "Age" rebuilding was continuing, and practically the only other multi-storey work was in hospitals including St. Vincent's, Royal Melbourne and the first stage of St. Francis Xavier Cabrini in Malvern. In 1954 work was commenced in the office on the Royal Children's Hospital at Royal Park again with Stephenson and Turner as the architects.

On the industrial side, the complex at Dandenong for General Motors Holdens was also commenced about this time; but the vast majority of work was much smaller in scale. Flats, banks, schools, churches, and smaller factory developments, as well as the many Coles and Woolworth stores, formed the basis of the practice".

One of John Connell's major jobs was the rebuilding of the "Age" building in Collins Street. Work had commenced in 1947 and continued through to 1959. It included underpinning and the construction of a 10 m high basement for the main presses and also making sure a working newspaper continued at all times.

On the industrial side there was the complex at Dandenong for General Motors Holdens. In 1956 the first design work for Kodak development at Coburg commenced and there was a further 25 years of work but of course Kodak no longer exists today.

Cyril Hudspeth also provided the design work for the reinforcing company ARC who offered a design service for builders for reinforced concrete in that era, and Ian Greig did quite a bit of that work. AR see did not, however, provide those services to architects who had to employ an engineer to do their design

Ian Greig said that he was an outstanding engineer to work for and a great mentor for young engineers, and he learnt a lot from Cyril.

During the next three years, the staff almost doubled in number with the addition of two engineers and two draftsmen, of whom the most "famous" were Ken (KG) Blight and the other Doug

Stephenson, who moved to the Adelaide office. Doug Stephenson was a champion squash player as a young man.

Dick Slade joined in about 1955 and left in 1963 and died in April 2013 in Tasmania.

One of JCA's projects was the No.5 Wool Store, built c1960 for the Victorian Producers Cooperative (VPC) in North Melbourne, which was designed before Cyril's death but built after his death.

A major step in the firm's development occurred in about 1951-2 when it was commissioned to design the Queen Elizabeth Hospital in Woodville, South Australia²³. The design was carried out in Melbourne over a period of years, but when Stephenson and Turner built a site office at the commencement of construction, Gerry Smith joined them as the JCA resident engineer in Adelaide. Construction would have started about 1952, and the main building was steel framed with concrete floors. This was the beginning of the continuous involvement in South Australia and the birth of the Adelaide office. The associated South Australian architects were Caradoc Ashton Fisher would head and Beaumont²⁴.

The author has in his possession three blueprints and one pencil drawing of the RMO's building which was concrete framed for the Queen Elizabeth Hospital dating from 1955. The pencil drawing on tracing paper has the initials JWC which was, of course, John William Connell as the drafter and designer. Interestingly enough, the title on the drawing has been changed to John Connell and Associates, but it appears that it was changed after the death of Cyril Hudspeth, even though the drawing is dated before his death.

The first building to be completed was the Nurses Home in 1954, and this was used partly as a maternity block. The main maternity block was completed by the Architect-in-Chief's Department in May 1957 and was opened for patients on 6 September. With extra work for the Government, the work on the General Hospital block was opened in 1959. Hansen Yunken combined with Wilken and Burnside to build the Queen Elizabeth Hospital from 1955-58. The final cost of the hospital was £7 million. It was the state's second largest teaching hospital and was affiliated with the University of Adelaide.

²³ The hospital opened in 1954 as a maternity hospital and expanded its services in 1959. At the request of the Government of South Australia, the hospital was named after Queen Elizabeth II, who had recently acceded to the Australian throne.

²⁴ In 1927 Ashton started his own practice. Robert Woodhead became an articled pupil to sole practitioner Ashton in 1932 and stayed with the practice. In 1934 Ashton formed a partnership with Norman Cater Fisher named E.C. Ashton & Fisher. During 1937 Ashton and Fisher worked in association with Charles Alec Russell on some small projects. Fisher died in 1949. Gordon Beaumont Smith joined the practice, and for a time so did W. Bevan Rutt. Robert Woodhead was made a partner in c.1949 and the practice was known as Caradoc Ashton, Fisher and Woodhead. Beaumont Smith was made a partner in c.1952 and the practice then became Caradoc Ashton, Fisher, Woodhead and Beaumont Smith. They subsequently became Woodhead Hall McDonald Shaw Pty Ltd. in the 1970s.

It continues in 2009 as Woodhead when they were taken over by GHD.

EA 2	QUEEN ELIZABETH HOSPITAL WOODVILLE S.A.	
	DRAWN BY J.P.	R.M.O.'S QUARTERS
	CHECKED BY D.C.M.	REVISION FOR GTON PILES
	DATE 9. 9. 55	INSTEAD OF 90 TON PILES
STEPHENSON & TURNER ARCHITECTS CARADOC ASHTON FISHER IN WOODHEAD & BEAUMONT SMITH ASSOCIATION CYRIL J. HUDSPETH AM. STRUC. E. (LON) M.I.E. AUST. CONSULTING ENGINEER 374 LT. COLLINS ST. MELBOURNE VICT. 3062		DRAWING NO. SCALE $\frac{1}{8"} = \frac{1}{2"} = 1'0"$

DETAIL 18215

SECTION 5-5

QUEEN ELIZABETH HOSPITAL WOODVILLE, S.A.		
DRAWN BY J.W.C.	1ST FLR CONSTRUCTION	DRAWING NO.
DATE 9/10/55	R.M.O.'S SI	SCALE
JOHN CONNELL & ASSOCIATES CONSULTING ENGINEERS, 374 LT. COLLINS ST. MELBOURNE		
STEPHENSON & TURNER ARCHITECTS CARADOC, ASHTON, FISHER WOODHEAD & BEAUMONT SMITH ASSOCIATION		

An example of John Connell's drafting



The Queen Elizabeth Hospital, Adelaide

Other projects included a swimming pool in Corowa in New South Wales, and the office designed a building for the ABC in Parramatta in NSW in 1956.

On 5 September 1956, Cyril Hudspeth at the age of 53 years of age, while attending a planning conference, died on his way to Perth by train, where he had taken ill at the age of 53 years, and an era in the history of that office ended. He had bowel cancer. He was buried on Tuesday, 18 September 1956, in Kew Cemetery, and Ian Greig was one of the pallbearers.

In December 1956, the Argus newspaper reported Cyril John Ernest Hudspeth, of Bernard St., North Balwyn, consulting engineer, who died on September 14, left estate, valued for probate at £66,440 (about \$2.6m in today's values) to his widow, Jean.

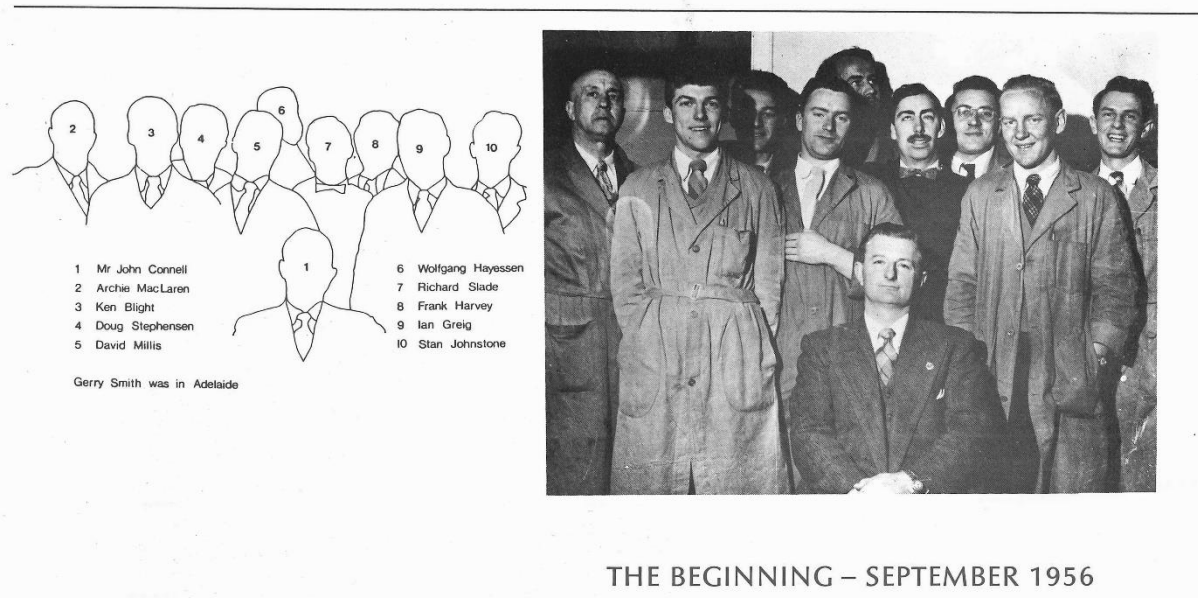
After Cyril Hudspeth's death

The office kept busy finishing work in progress for the Cyril H Hudspeth estate, but they also began to acquire new work, and, indeed new clients.

The new office commenced on 17 September 1956 with John Connell in charge and with Gerry Smith, Stan Johnstone (d C 2017), David Millis (d c 2013), Ken Blight, Frank Harvey, Dick Slade (d 2013), Wolfgang Hayassen, and Ian Greig. Frank Harvey, Wolfgang Hayassen and Dick Slade eventually took other positions. Frank to Tileman, Australia, Dick to the Public Works Department in Tasmania where he became Chief Structural Engineer, and "*Hayo*" back to Germany where he was a Professor of Engineering in the University of Munich. At this time, the office also inherited a group of stalwarts who worked for them at night. Notably among these were Don Bradbury (who later became Chief Architect in Public Works - he was qualified in both Architecture and Engineering) and John Wilson of Victorian Railways. The latter later became one of the partners of John Connell & Associates.

It appears that they probably traded under Cyril Hudspeth's name until John Connell and Associates was founded in 1958 even though it claimed it was started in 1956. John Connell bought the business from Cyril's widow and established John Connell and Associates (JCA) in 1958. The practice existed for 31 years until 1989 when it merged with Macdonald Wagner to form Connell Wagner.

Stan Johnstone took the following photograph just before Cyril's death, and there was a total of 11 staff with one staff member being Gerry Smith in Adelaide.



In conclusion, there has been a continuous line from Associate to Principal from Sir John Monash to John Connell as follows:

- John Laing as an Associate to John Monash before setting up his own firm,
- Cyril Hudspeth as an Associate to John Laing before setting up his own firm,
- John Connell as an Associate to Cyril Hudspeth for setting up his own firm,
- And then about 20-25 engineers, including the author John Woodside who was an Associates to John Connell. That era ended in 1989 when John Connell and Associates (JCA) merged with Macdonald Wagner to form Connell Wagner (CW).

2013 John Connell's 100th birthday

The Victoria Division of Engineers Australia helped John Connell celebrate his 100th birthday on 23 October 2013 at the Division headquarters in North Melbourne. Many of his former colleagues from John Connell and Associates attended (including Stan Johnstone, John Peyton, Bill Farrar, Stan Johnstone, Jack Wynhoven, and the writer). Other close friends were also present.



Stan Johnstone and Gerry Smith



Bill Farrar and Andy Goad



John Connell speaking on his 100th birthday

In his inimitable way, John gave a 10 minute speech without notes from a lectern to all present.

John Connell died on 16 May 2016 and thus ended the history of John Connell and the establishment of JCA.