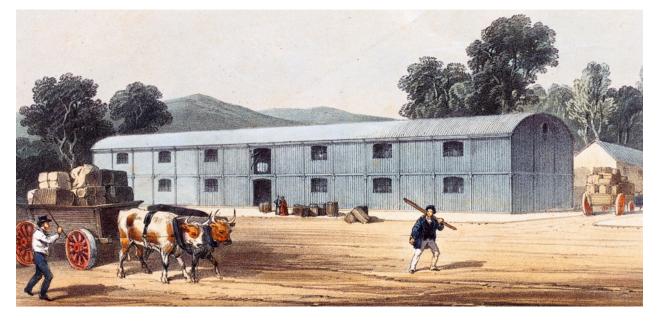


PORTABLE BUILDINGS WORLD HERITAGE NOMINATION TASK FORCE



We recommend to the States and the Commonwealth of Australia that a submission be made to UNESCO for the World Heritage listing of the imported Portable Buildings of the Nineteenth Century which survive in Australia.

Our role is to carry the matter forward until it is taken up by the relevant governments.

We continue to make progress through various activities in all the states and territories of Australia and through collaborating with our advisers and supporters in Australia and overseas, with national ICOMOS representatives, and with various government heritage agencies.

Our advisers and supporters are working with us, providing information on possible newly identified qualifying buildings, and progressing both research and conservation regarding existing buildings and structures on our provisional list.

Public interest and knowledge continue to grow, with media picking up on our campaign and buildings, and knowledge continue to spread, and engagement with universities.

We are always keen to engage and share with supporters and researchers. So please feel free to contact us here: <u>https://portablebuildingsaustralia.org</u> <u>portablebuildingsaustralia@gmail.com</u> Tony Isaacson, Convenor: 0418 381 638

IN THIS ISSUE:

- Our recent activity
- Coming up
- State and territory news:
 - Western Australia
 - Tasmania
 - Queensland
 - South Australia
 - Northern Territory
 - New South Wales
 - Victoria
- The Singapore house in Derby
- The buildings of Samual Hemming

OUR RECENT ACTIVITY

Updated World Heritage proposal

A revised and much-enlarged edition of the World Heritage proposal is available on our website

It includes the details of every building on our list and one or more illustrations of each, except for a few cases where we, unfortunately, have none.

It also updates our advisers/contacts list, which now includes the CEOs of most of the state government heritage offices and National Trusts in Australia, plus other important additions such as Dr Jörg Haspel, President, ICOMOS Deutches Nationalkomitee.

Taskforce gets out and about

We have re-commenced site research visits since restrictions have been lifted. In Victoria these include:

- Iron building, probably Glasgow maker, Keilor (#087)
- Porter store, Fairfield Park (#075)
- Woodlands homestead (#041)
- Brunswick Hemming cottages (#101-104)
- 5 Tranmere St, Fitzroy North (#069)
- Eastern Shore Light, McRae (#084)
- Japanese Tea House, Mornington (#072)
- The Hutch The Briars Homestead likely portable
- 47 Delbridge St, Fitzroy North unconfirmed Swedish.
- Labassa Conservatory NTAV visit (#105)



PBWHNTF visits Woodlands, #041, 1st February 2022 Mary Lewis, Simon Davies (SIDA Constructions), Miles Lewis, Paul Roser (VIC Parks), Chips Sowerwine, Janet Beeston, Tony Isaacson, Dr Andrew Clark CEO, Living Legends), Andrew Muir, Kim Wilson (Parks VIC): Living Legends



Miles Lewis lectures a University of Melbourne on Portables: Zoom

Miles Lewis lectures to full houses

On 28 November Miles Lewis gave a lecture 'Timber Portables, Seymour Cottage, and World Heritage' for the Romsey & Lancefield Districts Historical Society, organised by Dr. Fay Woodhouse. Janet Beeston, Tony Isaacson and Andrew Muir were present to answer questions about the World Heritage proposal and about Singapore cottages in particular. There was an extensive and excellent discussion, and it was gratifying that a number of architects and conservationists from Melbourne and elsewhere made the trip to attend.

Miles Lewis also presented a lecture on Portable Buildings in Australia at the Royal Historical Society of Victoria on Thursday 5th of August 2021. That evening new restrictions were introduced in Victoria, half an hour after the lecture finished!

He also lectured on portables to University of Melbourne masters students in March 2022.



PBWHNTF visits irn on building, Keilor #087, 1st February 2022 Natica Schemeder (City of Brimbank heritage adviser), Janet Beeston, Arthur Andronas (heritage architect), Mary Lewis: Tony Isaacson

Government funds portables

Here is a list of portable buildings to which the Victorian government has provided funding in recent years. It demonstrates government recognition of their heritage value:

- Abercrombie House, South Melbourne (#081)
- Iron building, Keilor (#087)
- The Briars the Hutch. Mornington probable portable
- Former Lt Mallop St store (#076) Sovereign Hill
- The Heights, Geelong (#60)
- Seymour Cottage, Romsey (#052)

COMING SOON

Universtity students to draw portables

Senior lecturer Stuart King and lecturers Ursula Chandler and David Pesavento love our buildings and our proposal, and they have selected portable buildings for their 2022 masters subject, Measured Drawing and Digital Heritage at the Melbourne School of Design.

The taskforce and National Trust of Australia (Victoria) are working with them, including facilitating access.

In early March Andrew Muir, Janet Beeston and Tony Isaacson hosted a site visit of about 30 students and lecturers to the Singapore cottage in Sackville Street Collingwood; and a week later Professor Miles Lewis presented a lecture to them, both live and via Zoom.



University of Melbourne Masters of Architecture Measured Drawing and Digital Heritage students visit Sackville St Collingwood, site of PBWHNTF launch and Singapore Cottages #'s 45, 48, 49, 50: David Pasarvento



PBWHNTF join National Trust of Australia (Victoria), heritage architect David Wixted of Heritage Alliance and other guests at Labassa Conservatory in March 2021: Tony Isaacson

Support and research is ongoing

<u>We're combining research with practical support to</u> <u>owners of portable buildings</u>. Here are a few examples:

<u>Supporting the owner</u> of 5 Tranmere Street Fitzroy North (#69), applying for planning and heritage approvals to restore it and make it liveable. We support the appropriate ongoing use of portable buildings. They should be useful and used, within the constraints of the Burra Charter.

<u>Revisiting Delbridge Street Fitzroy North:</u> our March 2022 visit was inconclusive regarding whether it is a portable from Sweden (or France according to alternative stories). We propose further investigations when some minor works are next carried out.

<u>Cleaning up at the Esplanade Newport</u>: We visited this possible American or New Zealand portable, with the heritage architects, and they are keen to get us back with the small team to carefully tidy it up in preparations for likely restoration works. This will also allow for further investigation

<u>Revisiting The Hutch at The Briars</u> with the architect and builder to further investigate the roof and underfloor.

<u>Offering support to</u> the owners of the Japanese Tea House in Mornington (#72). They have not yet taken up our offer.



5 Tranmere St Fitzroy North # 069 - to be restored: Tony Isaacson

We go to the Kimberley soon

Our planned visit to Broome and Derby, W.A. in July 2021 to inspect the Broome Cable Station (#110) and a likely Singapore sourced portable in Derby (#116) was postponed. We are now re-planning this adventure. We outline our research on the Derby house on p.13, and Broome Cable Station on p. 4

PROGRESS IN WESTERN AUSTRALIA

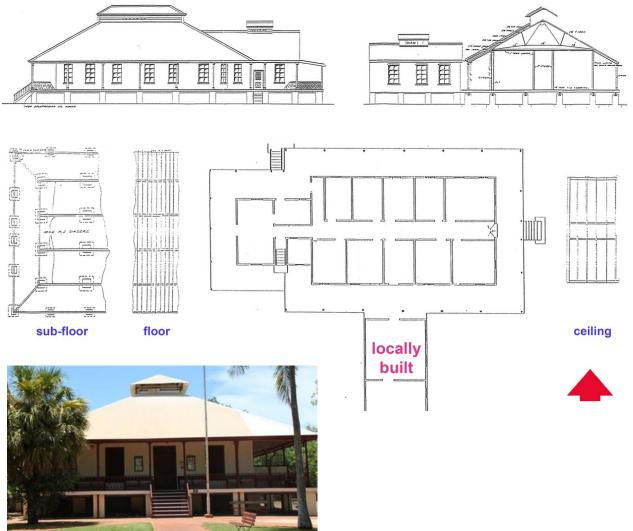
Our unstoppable WA representative, Rosemary Rosario, is now working with the National Trust of NSW, whose CEO, Julian Donaldson, has offered enthusiastic support, and put us in touch with the trust's Leigh Barrett.

The situation in WA differs from the other states because nearly all the buildings are already on the state list, and this means that the major hurdle has already been jumped.

The exception is the Emanuel house (#116) at Derby, which has been brought to our attention, and we include details of this house in this issue. This place is of major state significance, quite apart from the issue of prefabrication. We hope it will now be speedily assessed and listed.

There are also some questions to be resolved in relation to the buildings which are already listed. Leschenault Homestead at Bunbury is one of these, but here we are concerned only with two structures within the complex, and their precise identity is unresolved. Rosemary plans an expedition to clarify this. We also lack the names of the English manufacturers of the Artillery Drill Hall, Fremantle, and the Volunteer Drill Hall in Swan Barracks, Perth.

An attempt by the task force to inspect the Cable Repeater Station (Court House) at Broome (#110), as proposed in Newsletter no 1, was thwarted by the combined effects of Covid and the Department of Justice, which considers us a security risk. We are working through this bureaucratic nonsense and will be there soon.



Broome Court House, former Cable Station: reconstruction plan: Miles Lewis, based principally upon 'Plan showing conversion of the Cable Station 1922', Department of the North West WA drg. no 108, PWD WA drg no 21441.

TASMANIA IS CHALLENGING

Tasmania has only a handful of buildings, but is something of a challenge, as the National Trust simply does not respond to correspondence. We are now in touch with Annita Waghorn of Heritage Tasmania, and hope to make better progress.

There is a situation here rather like that of Leschenault homestead (#117) in WA. There are two extremely interesting iron buildings made by Edwin Maw of Liverpool, one behind the Lucas Hotel at Latrobe, and the other in the grounds of Longford House, Longford. In each case, the principal property is listed. The iron buildings are probably within the designated areas, but they are not specifically referred to and therefore cannot be regarded as safe.



Building in Mason St, Longford, Tasmania. D C Mann

Another problem in Tasmania is a group of buildings at Longford which are said to be prefabricated but about which we have no knowledge at all. Their appearance suggests that they might be English, and of either the late nineteenth or the early twentieth century.



Portable iron house; stable: *Boulton & Paul, Ltd., Manufacturers, Rose Lane Works, Norwich* (Boulton & Paul, No 97, revised edition, Norwich 1898)

AN EXTRAORDINARY HOUSE IN QUEENSLAND

Our Queensland list consists of only three structures, two lighthouses and a house 'Yeddo' (#021), imported from Japan.

Yeddo is extraordinarily interesting, and the owners, Hugh Markwell and Jan Cattoni, have had restoration work done by a Japanese master craftsman. Hugh and Jan have promised an article for a future newsletter.



"Yeddo' in the 1950s: Emma Scragg & Susan Hill, 'The Japanese House, 5 Lynch St, Ingham, Conservation Management Plan' (Riddel Architecture, Fortitude Valley [Queensland] 2009), p 16 [edited].



'Yeddo' in 1962, exterior detail and interior view, from the Markwell collection: Emma Scragg & Susan Hill, 'The Japanese House, 5 Lynch St, Ingham, Conservation Management Plan' (Riddel Architecture, Fortitude Valley [Queensland] 2009), p 17.

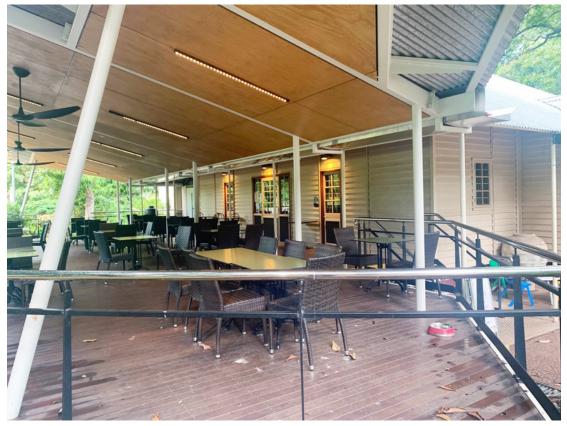
NO PROTECTION FOR NORTHERN TERRITORY CHURCH

Our Northern Territory list is even shorter, consisting of only two buildings.

However one of these, the former Wesleyan Church (#020) in Darwin, is of extraordinary technical interest and is described in detail in our Proposal.

We recently made contact with Michael Wells, Director of the Northern Territory Heritage Branch, who has been particularly enthusiastic and supportive.

However, he gave us two pieces of worrying news about the Darwin church. The first is that when the building was moved to its present site in the Botanic Gardens its heritage listing was cancelled, because the gardens are government land. In most states, there is a list of government buildings, which have some degree of protection, but apparently not so in the Northern Territory. The problem is not that although there is no current threat, without formal protection it will not qualify for inclusion in the World Heritage proposal.



Annexe to the Darwin church: Michael Wells.

Michael's second piece of worrying news is that there have been extensive additions to the church to allow it to function as a tea room. He kindly took photos of this for us. We are less concerned about this issue because so far as we can tell the work (which is confined to the back of the building) has been done responsibly and is potentially reversible. That is, the added structure can be removed in future, and interference with the original fabric has been minimal.

SOUTH AUSTRALIA 'HOME OF THE MANNING BUILDINGS'

Our major interest in South Australia is the group of buildings made by Henry Manning of London and built from 1839 onwards.

Paul Stark, our joint representative in South Australia, has recovered from his archives a body of documentation from the 1970s. We will have a major paper based upon this material in a future newsletter.



Friends Meeting House, Pennington Terrace, Noth Adelaide: Andrew Winkler



'Ringmer', 2 Ringmer Drive, Burnside, (Manning, maker): Miles Lewis

NEW SOUTH WALES

In the first newsletter we referred to a house at Dalgety which was reported to be a 'Moody Glossop' imported building. We have made exhaustive enquiries about such buildings, including an appeal for information published prominently in the Construction History News, UK. We received one helpful response, but this ultimately led nowhere, and we have reluctantly concluded there is no evidence of the house being imported, and have removed it from our list.



Jennifer Preston in the Retort House, Platypus Island (by Abbot & Co, Gateshead-on-Tyne, 1886): Ross Thornton

An independent group of researchers, Ray Stevens, Peter Emmett and Geoffrey Levey, have been investigating the iron house at 235 Rowntree Street, Birchgrove (#004). It has a complicated and interesting history, and we hope to be able to publish their conclusions soon.



235 Rowntree Street, Birchgrove: C D Young (Maker): Miles Lewis 2020

VICTORIA

Victoria has proportionately more portable buildings than other states, and there is a considerable amount to report, most of it satisfactory.

Two iron buildings have been moved and reconstructed. This is not a procedure which we favour, and it is contrary to the principles of the Burra Charter. In neither of these cases was the removal really necessary. But each of the buildings had been moved previously, so little evidence has been lost, and the reconstruction has been done impeccably by Simon Davies of SIDA Constructions.



Building by J H Porter of Birmingham (#074), c 1853, original location unknown, moved from the Yarra Council Depot to Fairfield Park, 2020: Miles Lewis



The Fitzroy Depot building before removal, head and foot of a stanchion: Miles Lewis.

VICTORIA

The building by J H Porter of Birmingham (#074), formerly in the Yarra Council Depot (where it was discovered many years ago by Alan Willingham), has been reconstructed in Fairfield Park. With its missing wall replaced it has arguably become rather bland in external appearance, but the technical detail is fully preserved. The professional team involved was

- 1. Client: City of Yarra
- 2. Project manager: Department of Major Projects, Oliver Smith and Dillon MacDonald
- 3. Architect: Purcell, Alistair Ravenscroft
- 4. Structural engineer: TD&C, Doug Turnbull
- 5. Builder: SIDA Constructions



The Fitzroy Depot building, J H Porter brand on a stanchion [rotated, cropped]: Miles Lewis.



The Fitzroy Depot building, Porter Brothers & Stuart brand on a window head: Miles Lewis.

The second iron building to be moved was one that stood by the Calder Highway at Keilor (#087), though this was apparently not its original site. The Brimbank Council has relocated it to Harricks Road, Keilor, and even the finishes have been preserved. It used to be described as having been a police building, but there is no evidence for this. We can only say with reasonable confidence that it is a building made in Glasgow, about 1853-4. The corner stanchion, containing a recessed panel with a curved top, links it to another Scottish building, Marsh House at Yapeen. A possible manufacturer of both buildings is Chaplains, Dixon & Robb of Glasgow, but this is the merest suggestion. The professional team for this project was:

- 1. Client: City of Brimbank, Catherine Hunichen
- 2. Council heritage adviser: Landmark Heritage, Natica Schmeder
- 3. Architect: Andronas Conservation Architects, Arthur Andronas
- 4. Engineer: Quatrefoil, David Hogg
- 5. Builder: SIDA Constructions



The Keilor building as re-erected on Harricks Road: Miles Lewis



Roof of the Keilor building showing the minimal modern intervention to support it: Miles Lewis. Corner of the building on its former site, showing the distinctive corner stanchion: Miles Lewis.



The Hutch at the Briars, Mount Martha, and a detail of the cladding: Miles Lewis.

The Task Force visited the Mornington Peninsula in January. It was impossible to inspect the Japanese Tea House (#072) at Marina, Mornington, and the origins of the building remain obscure. It is likely that it will prove to date from the twentieth century. At the National Trust property, The Briars, Mount Martha, restoration work is being done to a timber bedroom wing known as 'The Hutch'. Our visit, organised by Samantha Westbrooke of the Trust, confirmed that the building was probably prefabricated in some sense, but we will need more information, such as timber identification, to get much further. The restoration work is being done by

- 1. Client: Mornington Shire and National Trust of Australia (VIC)
- 2. Architect: WKH Architects, Steve Hofer

On 28 November Miles Lewis gave a lecture 'Timber Portables, Seymour Cottage, and World Heritage' at Romsey for the Romsey & Lancefield Districts Historical Society, organised by Dr Fay Woodhouse. Janet Beeston, Tony Isaacson and Andrew Muir were also present to answer questions about the World Heritage proposal and about Singapore cottages in particular. There was extensive and excellent discussion, and it was gratifying that a number of architects and conservationists from Melbourne and elsewhere had made the trip to attend.

THE SINGAPORE HOUSE IN DERBY

WESTERN AUSTRALIA UNCONFIRMED, RESEARCH ONGOING



The Emanuel Brothers' bungalow, 35 Loch St, Derby: Sharon Rowell [cropped]

We are currently investigating this interesting building (#116). Sharon Rowell, who once lived in it, heard Miles Lewis talking on the radio about Singapore buildings and got in touch. Its history seems to be entwined not only with Singapore and prefabrication, but with development of the Kimberley region and the pioneering of the sheep and cattle industry.

Sharon's father, Robert Mitford Rowell, was a young accountant who came to Derby in 1938 to manage Monger & Co's stock and station and shipping agency. The office was at the corner of Loch St and Johnston Street, and the bungalow next door was owned by the Monger family and occupied them in winter, but otherwise available to the Rowells. When the Rowells had to vacate they lived elsewhere, such as the hotel, which was occupied only by drunks, who – to Ruth's consternation - would walk along the verandah feeling the beds until they found a vacant one to use. When Robert bought the business a few years later things were very different, for they now owned the bungalow. He expanded the business to become R M Rowell & Co's Stock, Station, Shipping and General Agents, and dealt also in insurance, fuel and air transport.



The R Monger & Co office and the Singapore bungalow Loch St, Derby date unknown: courtesy Sharon Rowell [cropped]

THE SINGAPORE HOUSE IN DERBY

The family tradition was that the bungalow had been built by the Emanuels, who brought it from Singapore. This is a little puzzling, as the Emanuels appear to have had little personal involvement in the business or, by this time, in Derby itself. The business was opened in 1905 by Aubrey McGlew as a branch office of Forrest, Emanuel and Co in Perth, later becoming successively McGlew & Monger, Monger & Farrington, R M Monger & Co, and R M Rowell & Co, and it was finally sold in 1970 to the newly established Australian Land and Cattle Company.



Robert Mitford Rowell and Ruth Rowell (née Robinson) in the back garden of the bungalow, with the stables behind: courtesy Sharon Rowell

If the house was indeed built by the Emanuels it seems likely to have quite different origins. The family were pioneers of the Kimberley sheep and cattle industry. When the Kimberley was opened up for lease in 1880 Solomon Emanuel and Patrick Durack of New South Wales financed an expedition to reconnoitre the area, and then obtained large areas of land, which they were obliged to stock under the conditions of their leases. Durack succeeded in overlanding cattle and horses from Thylungra Station on Cooper's Creek, but with large losses and at enormous cost. In 1884 Emanuel attempted to send cattle overland from New South Wales but they got less than 200 kilometres past Cooper's Creek before being halted by drought. He now shipped his stock by sea, mainly under the control of his sons Isidore and Sydney. In September 1884 a shipment of Solomon Emanuel's sheep and cattle from Sydney arrived at Cambridge Gulf. In April 1885 a shipment reached the Fitzroy River, and another was due at Derby. This, so far as we know, was the first involvement of the Emanuels in the town, and the run near Derby was managed by Sydney Philip Emanuel.

Derby had been laid out and the first lots sold in 1884. In December 1885 an Emanuel, probably Solomon through one of his sons, bought eight allotments in the town, and in 1886 lots 257, 258 and 259 (the site of the house) were bought by Solomon. By 1887 conditions in the area had changed markedly. The Kimberley Goldfields had been opened up and many of the aspiring diggers had passed through Derby to get there, but the rush was now over. The phase of stocking up the runs had given way to the phase of exportation. Bullocks, sheep and horses were sent to Singapore, and Australian beef in particular was in demand. The steamship *Australind* was plying the route, and a

THE SINGAPORE HOUSE IN DERBY

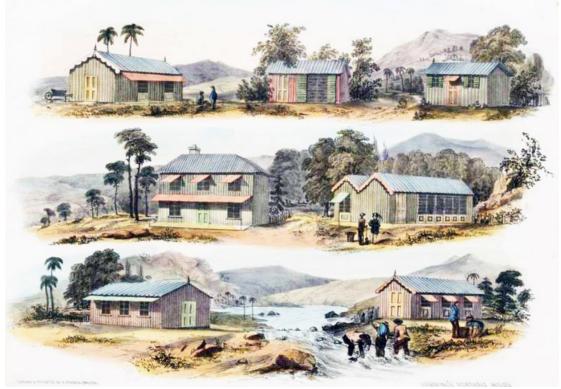
number of West Australians took the opportunity to visit Singapore for pleasure. Henceforward the Singapore connection remained very strong, and even forty years later Sharon Rowell noted that all the furniture in the house, and most of her father's clothes, came from Singapore.

Emanuel shipped his stock out through Derby, and it would make sense to have a depot in the town. And Sharon remembers just that. The vacant block next door to the house had been used to hold the Emanuels' sheep before or after being shipped. It was always referred to it as Emanuels', and was still owned by them all the time the Rowells were there. It seems probable that the Emanuels passed the control of the shipping process to Aubrey McGlew in 1905, for even in Rowell's time the firm continued to look after the Emanuel business. The Emanuels probably no longer required a house in the town, and it was also transferred to McGlew. Ruth Rowell recalled that the front room had been used as the company's office (this presumably before the construction of purpose-built structure next door). On this basis the house was imported and erected some time in the decade 1890 to 1900 but transferred in 1905

The alternative is that the Emanuels, as McGlew's landlords, had the house imported and constructed specifically to house their business. This is consistent with the tradition that the house was built by the Emanuels, which does not necessarily imply that it was occupied by them.

010 Wingecarribee, Bowral, NSW 083 St Paul's Op Shop [former corrugated iron church], 30 Fisher St, Gisborne, Victoria 101 semi-detached iron house 181 Brunswick Rd, Brunswick, Victoria 102 semi-detached iron house 183 Brunswick Rd 101 semi-detached iron house 187 Brunswick Rd 101 semi-detached iron house 189 Brunswick Rd

Three buildings made by Samuel Hemming of Bristol are known to survive in Australia, while there are none anywhere else in the world. Two in Canada are more probably by his son. Hemming was enormously prolific, but his buildings have not survived well because they are timber-framed, unlike most of the iron-clad buildings made in Britain in the mid-nineteenth century.



Hemming's portable houses for Australia, lithograph by A Pocock, Bristol, probably 1853: National Library of Australia [cropped].

Samuel Hemming (c 1799-1876) was said to have started his business after successfully constructing a light portable house for a son who was emigrating to Australia[1] though it is unclear which son this might be. By October 1852 Hemming had constructed his first prototype and was setting up his works in the Bristol suburb of Bedminster.[2] In March of 1853 thirty iron houses, which must have been Hemming's, reached Melbourne from Bristol on the Elizabeth.[3]

According to reports in April 1853, Heming was producing 'scores of snug, compact, uniform little dwellings' for emigrants.[4] The houses were simple in construction – timber frames with galvanised corrugated iron walls and roofs, a three inch [75 mm] wall space, and an internal lining of half inch [13 mm] boarding covered in canvas. They were assembled with iron screws and bolts, and it was claimed that even an inexperienced person could do this in four hours. The cheapest one-roomed cottage cost £35, and furniture could be provided for £10. The houses packed compactly to save freight, in a crate which was made of one inch [25 mm] floorboards intended to be used in the building.

^[1] Builder (London), 2 April 1853, p 214; Illustrated London News, 30 April 1853, p 320. The latter report, which does not

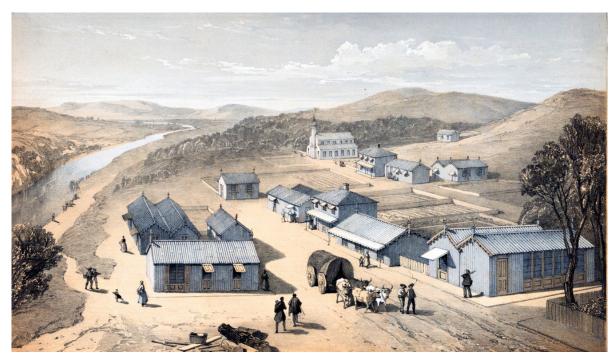
specify Australia as his destination, is also quoted in the *Lady's Newspaper*, 11 June 1853, p 376.

^[2] Bristol Times and Mirror, 23 October 1852, p 8.

^[3] *Argus* (Melbourne), 12 March 1853, p 4.

^[4] Builder (London), 2 April 1853, p 214; Illustrated London News, 30 April 1853, p 320.

Hemming was soon making larger buildings as well. One was a lodging house measuring 114 by 46 feet [34.2 x 13.8 m]. with fourteen bedrooms and fifty-six beds, two sitting rooms of 20 by 20 feet [6 x 6 m], a luggage room and other spaces, costing in all £1,500. Another was a parsonage reportedly ordered by the Bishop of Melbourne (Charles Perry), and yet another a church which, as it turned out, was to be the first of a series.[5] By February 1854 Hemming's works were said to give the impression of a town rising and falling in a week, leaving behind it only trim packages awaiting shipment.[6]



Portable town for Australia, by Samuel Hemming of Bristol: National Library of Australia an8713100.

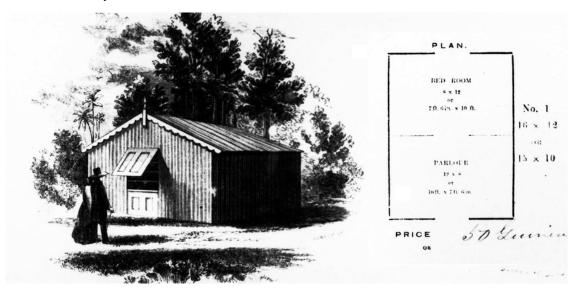
A number of illustrations of Hemming buildings survive, both engavings and colour lithographs. Some of the buildings shown are rather myseriously designated as being for the Melbourne and Colonial House Investment Company. This enterprise took an interest not only Hemming's but in various other types of prefabrication, but it seems to have failed almost at the outset. There is no clear confirmation that it ultimately bought any of Hemming's buildings, and nor is there evidence that it actually managed to send any buildings to Australia at all. It seems that designs which Hemming had prepared for the company simply remained on his books and were offered to subseqent customers.



'Villa residence to be erected at Sydney for Messrs. B.L. Lloyd & Co.' (but formerly designted for the Melbourne and Colonial House Investment Company) Hemming's Patent Improved Portable Houses, Clift house, Bedminster, W Simpson, engraver: broadsheets held at the Baillieu Library, University of Melbourne; also Rex Nan Kivell Collection, National Library of Australia, NK 482.[cropped]

[5] Builder, XI, 530 (2 April 1853) p 214; Lady's Newspaper, 4 June 1853, p 353. [6] Illustrated London News, 18 February 1854, p 141.

But Hemmings buildings reached Australia in their hundreds. The smaller ones were apparently seen as replacements for tents, and so were very rudimentary. His Cottage no 1 had only one combined door and window, and it is not surprising that two of these which survived into the twentieth century incurred the wrath of the slum reformers.



Cottage No 1 containing a bedroom and parlour, view and plan [reformatted]: Hemming's Patent Improved Portable Houses, Clift House, Bedminster: broadsheets held at the Baillieu Library, University of Melbourne.



Two Hemming no 1 houses then surviving at 19 Byron St, North Melbourne, photographed by Oswald Barnett in the 1930s [detail]: Melbourne Library Service ID 18921. [cropped]

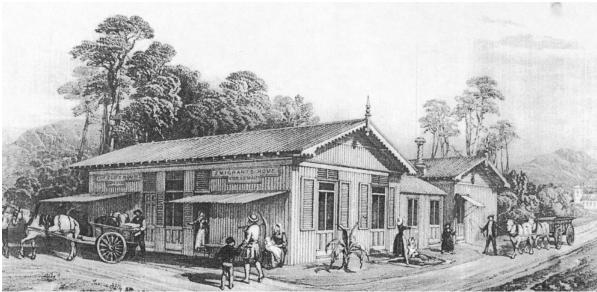
There was an important relationship between Samuel Hemming and Caroline Chisholm, the philanthropist and reformer, but the available information about it is vague. An article in the Lady's Newspaper in 1853 reports that Caroline Chisholm has made two visits to the Hemming factory.[7] Later in 1853 the Clift House works advertised a prefabricated migrant hostel for Australia, said to be a Gothic building of wood and iron, built to a plan 'suggested by Mrs Chisholm', and apparently a gift from Hemming.[8]

^[7] Broadsheets held by the Baillieu Library, University of Melbourne. The extract is undated, but it appears to be a reworking of an article in the *Lady's Newspaper* of June 1853.

^[8] This is possibly the same building as is mentioned by H G Turner, *History of the Colony of Victoria* (2 vols, London 1902), I, p 370, as having been erected by the Immigrants Aid Society on the wharf, for the luggage of new arrivals seeking a domicile.

There seems to have been a second such gift, for an illustration exists of a patently non-Gothic emigrant hostel which seems rather to be the home for forty-eight described as being under construction at Hemming's works February 1854:

... a Female Emigrants' Home, intended by the benevolent proprietor as a gift to the colony. It comprises a large common room; four bed-rooms, with twelve comfortable beds in each; detached lavatories and water-closets on one side; on the other, cooking and store-houses, with a separate dwelling for the superintendent - the whole with the best arrangements for ventilation. [9]



'View of an Emigrants' Home to accommodate 72 persons ... on the plan suggested by Mrs Chisholm' [?1853], Day & Son, lithographers: Rex Nan Kivell Collection, National Library of Australia, NK 479 U2595. [cropped]

The fate of these buildings is unknown, for Chisholm did not establish a Female Immigrants' Home in Melbourne as she had in Sydney.[10] She did however establish tents for immigrants at the foot of Lonsdale St and her husband, Captain Archibald Chisholm, was one of the founders of the Immigrants Aid Society when it was established in Melbourne in 1853, though he did not remain active. Another of the founders was William Jarrett, a Congregationalist turned Presbyterian minister,[11] who acquired a Hemming building apparently as a private investment.



The most intact of the four houses. 189 Brunswick Road, Brunswick [Melbourne], 1854, attributed to Samuel Hemming.

[9] Illustrated London News, XXIV, 669 (18 February 1854), p 141.

^[10] Margaret Kiddle, Caroline Chisholm (Melbourne UP, Melbourne 1950), pp 35 ff.

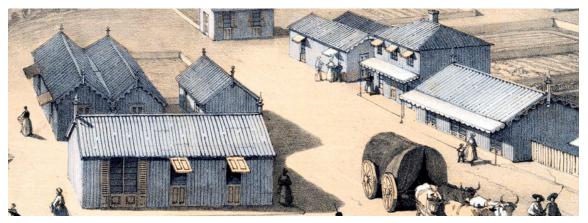
^[11] Argus (Melbourne), 6 February 1855, p 4.

Jarret built two pairs of semi-detached houses at 181-3 and 187-9 Brunswick Road, in the Melbourne suburb of Brunswick, probably by modiying what had been intended as a continuous terrace of four houses (as has been astutely recognised by Andrew Muir). Dividing the terrace meant that two extra end walls were required, and these were built locally in brick. These houses were first studied in detail by Helen Lardner in 1996, but only now have we recognised them as being the work of Hemming.



187 Brunswick Road.

Although they do not specifically correspond to any of Hemming's published illustrations, they do generally resemble his work. Moveover, Hemming was the only British maker in the 1850s who regularly built structures in terrace rows and virtually the only maker of the time who produced timber frames clad in corrugated iron. The bargeboards (which survive only on the west end of no 189) resemble Hemming's as illustrated, but for the fact that they are perforated. The large windows are also similar to some of those used by Hemming.

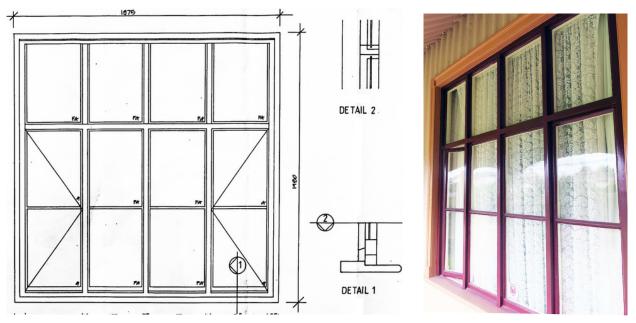


Portable town for Australia, by Samuel Hemming of Bristol: National Library of Australia an8713100 [detail].



189 Brunswick Road, north wall cladding and gable: Miles Lewis.

The cladding is in broad pitch corrugated iron. There is no visible corner member, and the sheeting simply wraps around the angle (which is reminiscent of Porter's patent). The sheets have been rivetted together in the lengthwise direction, probably while on the ground, and only later joined laterally. There can also be seen the slotted domed heads of bolts, and the square heads of very large screws, which seem to be the means of connecting the iron to the major timber framing members. The roof sheeting, though of greater width, was assembled the same way and, according to Lardner, is marked with numbers at the joints of each sheet. Generally, these numbers match those on adjoining sheets in the direction of slope, while there is no numbering system in the transverse direction. The roof is framed with coupled rafters (not trusses, as stated by Lardner), of which there are four per house. These are numbered one to sixteen and stencilled accordingly, usually in red on the north part and black on the south.[12]

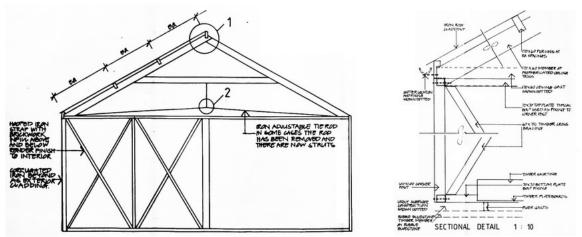


Portable town for Australia, by Samuel Hemming of Bristol: National Library of Australia an8713100 [detail].

[12] Helen Lardner, Brunswick Iron Cottages (Helen Lardner Conservation & Design, Fitzroy [Victoria] 1996), p 30.

Lardner refers to the letters 'JC' as appearing 'on some of the fabric',[13] and Andrew Muir notes that these are in fact on the corrugated iron and are stencils. Such lettering would normally be a consignment mark, and it would suggest that the structure was sent to a Melbourne mercantile house and sold on, rather than being ordered by Jarrett direct from Hemming.

The most stylish element is an elegant wrought-iron verandah balustrade of a criss-cross pattern. The elements of most technical interest are the timber framing and the wrought iron tie rods. The timber framing consists of criss-cross braced panels, which does not seem to be Hemming's standard practice. The tie rods, just above the ceiling, cross the roof at the centre of each cottage and at the party walls. They are hitched up at the centre in a way which seems to have been a fairly common practice at the time.[14]



Brunswick Road cottages, construction: Helen Lardner, *Brunswick Iron Cottages* (Helen Lardner Conservation & Design, Fitzroy [Victoria] 1996), no page [reformatted].

Apart from the end walls of 183-5 which had to be built of brick, other brickwork was incoporated into the construction. It was used as nogging within the timber framing of the exterior walls, a possibliity always envisaged in reports of Hemming's system. And it was used to create party walls dividing each pair. Some or all the north-south or passage walls are also of brick. The eastern houses, 183 and 185, were given an outside cladding of brick in about 1912. The floors and ceilings were apparently not supplied, for they include dedaru and Australian hardwood, which would have been obtained locally. The same is true of the meranti skirtings of numbers 183-5, which Muir believes to have been cut from weatherboads.



The Iron House, Kirribilli, by Conrad Martens, painted 1856; ie The Dingle, built c 1855: State Library of New South Wales FL876313

[13] Helen Lardner, *Brunswick Iron Cottages* (Helen Lardner Conservation & Design, Fitzroy [Victoria] 1996), p 15. [14] The same form was used under a laminated arch in a Parisian building of about 1844: *Builder* (London), 16 May 1850, p 232.



The Dingle, view during demolition, 1939, Alec Iverson, photographer: State Library of New South Wales ON 388/box 054/item 093 [cropped].

Recent work by Peter Emmett enables us to attribute to Hemming a Sydney building which does not survive but which appears in a well-known painting by Conrad Martens. It is The Dingle, at Kirribilli, the house of the barrister Charles Riley, who lived there from 1855 to 1862. It was demolished in 1939.[15] The rather romantic painting by Martens showed it to be clad in corrugated iron, but was lacking in technical detail. Emmett, however, has identified three photos in the State Library of New South Wales which were taken at the time of its demolition. The timber framing, and other details consistent with the work of Hemming, are visible.



'Hemmings Portable House Manufactory, Clift House Bristol. A view of the principal thoroughfare as it appeared the first week of August 1853 shewing the second church executed for the Diocese of Melbourne 1000 sittings': State Library of Victoria H30511.

^[15] A more detailed history has been compiled by Peter Emmett.

A coloured lithograph survives of Hemming's manufactory, entitled 'A View of the principal thoroughfare as it appeared in the first week of August 1853 showing the second Church erected for the Diocese of Melbourne. - 1000 sittings'.[16] By February 1854 there was also another church ready for shipment, [17] and soon after this Hemming advertised that there could now be seen at his works four churches and chapels, an unspecified number of two-storeyed hotels, and an emigrants' home for 72 people.[18]

When Bishop Perry planned to import churches to Melbourne he was fortunate in obtaining the approval of the Society for Promoting Christian Knowledge, which made a grant to assist the project.[19] Perry then approached the Birmingham manufacturer J H Porter, who quoted £3 a seat as his minimum price, but Hemming halved this by offering a church for six hundred at £1,000, for eight hundred at £1,250, and for one thousand at £1,500.[20] 'We may soon be gratified,' according to an English report, 'with the novel spectacle of clergymen leaving our shores from time to time for Port Phillip, each of these taking his church and parsonage house with him.'[21]

Before being despatched the first church was opened for a one-off service at Hemming's works on 15 May 1853. It consisted:

of a framework of timber, cased on the outside with galvanised corrugated iron, and lined with boards, leaving a space of four inches and a half or more between, to be filled up afterwards with any convenient non-conductor - such as straw, sawdust, wool, or sun-burnt bricks. The ceiling under the roof, which is of iron, is lined with inodorous felt, as a non-conductor of heat with an under ceiling of canvas, with paper, which to the eye has the appearance of an ordinary ceiling of lath and plaster: the space between the felt and galvanized iron roof to be filled with straw or thatch. The lining of boards is further lined with strong canvas, and covered with a suitable marble paper. The floor consists of oak sleepers, with an inch and a half boards; the lower frame of the building is also of oak. The church is of a pleasing appearance outside, with a small belfry-tower in front; it has a nave, and two aisles, the roof of the former being higher by some feet than that of the latter. The seats are all open and moveable; the divisions and other fittings are of a light open ironwork.'

The accompanying parsonage was 'decent-looking', with 'six snug rooms'.[22]

^[16] Historical Collection, La Trobe Library, SLV

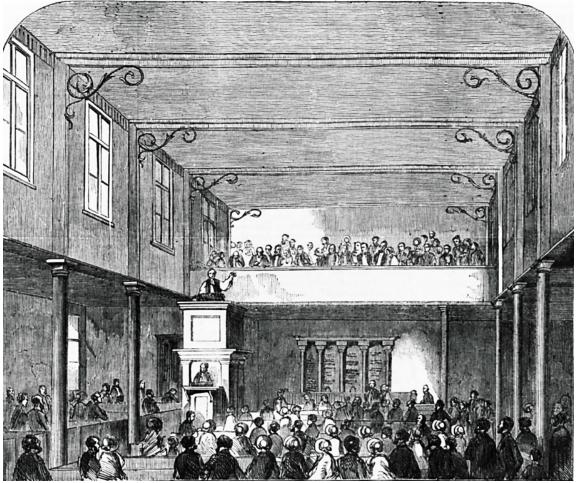
^[17] Illustrated London News, 18 February 1854, p 141.

^[18] *Illustrated London News*, 1 April 1854, p 229. It is mentioned that the timber work is seasoned in the extensive drying houses at Clift House. Enquiries are invited at the works (Clift House, Bristol), as well as at Mr N Hemming's, 93 Gracechurch St, London; Baker St Bazaar, London; Josias F Browne and Co, Glasgow; T Mather, Newcastle; Messrs M'Donald, Belfast; T Ferris, Londonderry.

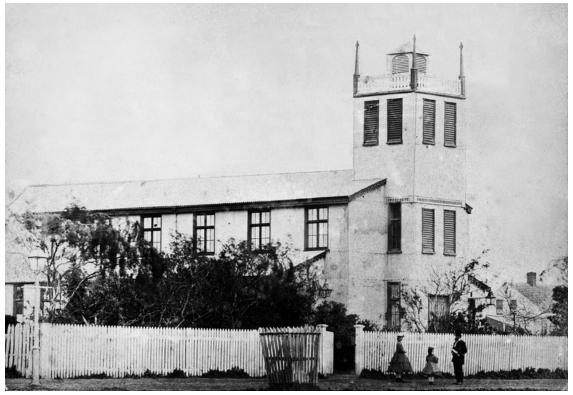
^[19] Geelong Advertiser, 22 August 1853, supplement p 1; Goodman, The Church in Victoria, p 205.

^[20] Turner to Bishop Perry, printed in the *Church of England Messenger*, 1853, p 189; quoted Lewis and Lloyd, 'Portable Buildings', p 12, and see also p 13.

^[21] Church of England Messenger, 1853, pp 251, 189 quoted Lewis and Lloyd, loc cit. Another report gives £525 as the cost of a six room parsonage with flooring and stove, but later in the same report a six roomed house costs £315, giving an estimated total, including freight and erection, not exceeding £500: Geelong Advertiser, 22 August 1853 supplement p 1.
[22] Church of England Messenger (Melbourne) 1853, p 251, quoted in the Sydney Morning Herald, 21 October 1853, p 5.



'Interior view of an iron church for Australia': Lady's Newspaper, 4 June 1853, p 353.



Trintiy Church Williamstown, by Andrew Rider, photographer, c 1865. State Library of Victoria H86.98/638

This church was destined, with the parsonage, for the Melbourne suburb of Williamstown.[23]

[23] Goodman, op cit, p 207

After twenty years a stone church was built at Williamstown, and the iron building was removed to become the Sunday school of St Phillip's, Collingwood,[24] where it remained until it was demolished early in the twentieth century.



St Paul's Church, Gisborne: postcard from the Rose Series, P 4309. State Library of Victoria H29126



The flank of St Paul's, Gisborne, on its later site: Miles Lewis

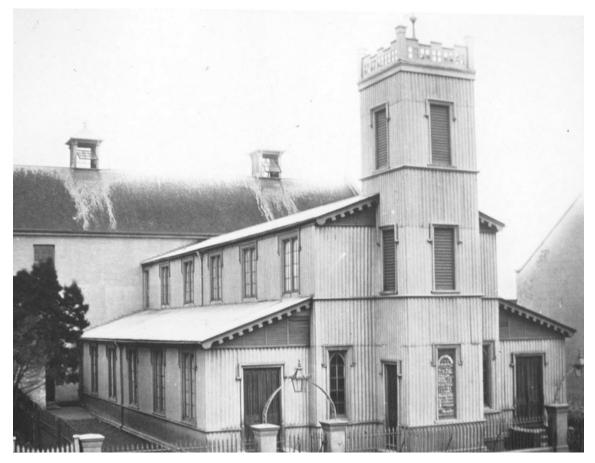
A much larger church was sent to Sandridge [Port Melbourne], where it stood until destroyed by a storm in 1898. The third church, the second in order of erection on site, was a much smaller structure, [25] probably of six hundred sittings. It is the only Hemming church which survives – or

^[24] *Argus* (Melbourne), 13 October 1875, p 6; Goodman, *The Church in Victoria*, pp 207-8 [25] *Argus* (Melbourne), 24 August 1940.

survives in part - today. It lay unwanted in St James's Church yard in Melbourne, until the packages were carted to Gisborne and it was put up, with a brick vicarage, on six hectares of land on a hill on the Melbourne side of the town. In 1930 the church was moved to its present, more central position at the corner of Fisher and Brantome Streets in Gisborne, and re-opened for service. In 1949 it was declared unsafe and was sold to the Eagley Woollen Mills, which rebuilt the roof, removed the tower, constructed a new brick facade at the west, and otherwise renovated the building, but in 1961 it was re-purchased by the Church of England. [26]

Some other churches were never put up at all, and by the end of the century, the iron churches were regarded as

hot, ugly and perishable. The scorching sun draws the nails, curls the iron plates, and makes the interior as hot as a baker's oven. The style of architecture is hopelessly unpleasing, and such as suggests the factory or the warehouse. [27]



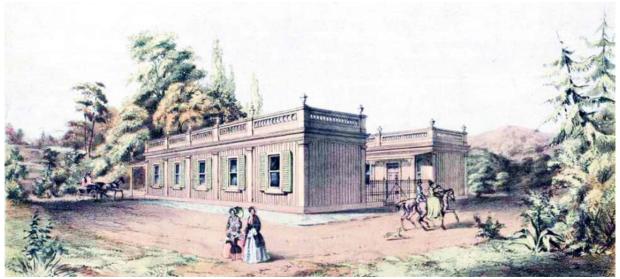
Congregational Church, Bourke Street, Sydney: Photographs of Public and other Buildings, p 89 (no 267).

Apart from these Anglican churches, several were reportedly ordered by the Roman Catholics, [28] though they seem not to have eventuated. In Sydney, however, the Congregationalists put up a Hemming church at Bourke Street, Surry Hills. It was later moved, and ultimately demolished. [29]

[27] Goodman, The Church in Victoria, p 208.28] B8uilder(London),17 December 1853, p 764.

^[26] Argus (Melbourne), 25 January 1930, p 19; Age, 28 June 1930; Read, 'Prefabricated Buildings and Structures', pp 39-40, largely q*uoting a Back to Gisborne* celebration booklet of January 1954; EG Robertson, *Victorian Heritage* (Melbourne 1960), pp 48-9. There are some discrepancies between the accounts, especially in that Robertson erroneously dates the moving of the church to 1874.

^[29] Lindsay Seers advised Miles Lewis, 1 February 2013, that the building was sold for £95 and moved to Stewart Street to become a 'dance hall and place of entertainment. It was still standing in 1914.[



'Portable House for Erection in the Colony. The Melbourne and Colonial House Investment Company, 13, Gresham St. London.': Australian National Library, Rex Nan Kivell Collection, NK 481.

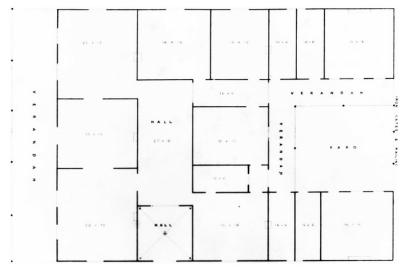
Amongst the surviving Hemming illustrations is another house supposedly made for the Melbourne and Colonial House Investment Company, referred to above. It is a single storey, box-like building, quite unlike Hemming's earlier works, with the roof pitch concealed behind a parapet on which sixteen classical urns are distributed at intervals, and with classical pilasters articulating the walls. The building is U-shaped in plan, and the view shows the rear, with the internal court fenced off at the open end. [30]



House; 'The Melbourne and Colonial House Investment Company, 13, Gresham St. London';' Hemming's Portable Building Manufactory, Clift House, Bristol, and Bow Nr. London', view: Baillieu Library, University of Melbourne. The same lithograph, differently titled is in the State Library of Victoria H30150

^{[30] &#}x27;Portable House for Erection in the Colony. The Melbourne and Colonial House Investment Company, 13, Gresham St. London.' Australian National Library, Rex Nan Kivell Collection, NK 481.

A very similar design (or perhaps even the same design flipped over), is shown in another lit1ograph, also of a house said to be for the Melbourne and Colonial House Investment Company and this building has actually survived. The apparent front elevation consists of a central door with two double-hung sash windows (as they appear to be) on each side, and a simple verandah running the full width, with six columns with ornamental cast-iron brackets at their tops. [31] The side or long elevation shows the same six classical pilasters as in the previous illustration, but it includes the main entrance to the house. The plan corresponding with this is labelled as design No43, costing 1700 [?guineas].



Unlabelled house, design no 43, costing 1,700 [?guineas], plan, apparently the same house as the previous. Broadsheets held by the Baillieu Library, University of Melbourne.

It shows that this main entrance opens into a large lobby, labelled 'hall', twelve feet [3.6 m] square, and thence into a true hall of 12 by 27 feet [3.6 x 8.1 m]. Around this hall are grouped a number of large rooms, while at the back the service rooms form two wings with a yard in between, as in the previous example. [32]

A second copy of the former lithograph is held by the State Library of Victoria, but bears a different (contemporary) caption, reported to be 'Prefabricated House erected for Messrs. J Clinch & Sons, Sydney'. [33] But there was no J Clinch & Sons in Sydney, and it appears the lithograph reference is to John Clinch & Sons of London, [34] proprietors of a private bank, the Oxfordshire Witney Bank. [35] Nothing in its known history links Clinch's bank with the Melbourne and Colonial House Investment Company, but is possible that it had been acting on behalf of the Australian purchasers, who were the Oxley family. Their house, which stands today, is 'Wingecarribee' at Bowral, New South Wales. Two other villas of the same design are said to have been shipped to Victoria and to Queensland, but they no longer stand, [36] and it may well be that there were minor differences, which might account for the differences in the lithograph views.

[32] Broadsheets held at the Baillieu Library, University of Melbourne.

^[31] Broadsheets held at the Baillieu Library, University of Melbourne; also Rex Nan Kivell Collection, National Library of Australia, NK 481.

^[33] State Library of Victoria H30510. The caption is concealed by the mount, and the transcription of it is probably incorrect, as the word 'prefabricated' was not in use at the time.

^[34] The National Museum of Australia holds document duplicate / Drs Estates Adm'l John Gore Mrs Sarah Gore & Com'r

Graham Gore dec'd in Acc't Curr't with John Clinch & Sons', dated 'London 17th Dec'r 1858 / John Clinch & Sons'.

^[35] Sun (London), 29 October 1858, p 3; London Evening Standard, 23 December 1860, p 4.

^[36] Gatis Gregors, 'Prefabrication in Australia 1788-1920' (2 vols, BArch, Sydney University 1981), I, p 67.

The house which became Wingecarribee is supposed to have been ordered in 1853 by J M Oxley, son of the explorer, and to have reached Sydney in 1854. [37] But the Oxley family had second thoughts, as Henry Molesworth Oxley's diary for 15 March 1855 records 'Arranged to have the iron house that we sent for sold if possible.' [38] There can be little doubt that this advertisement, lodged on that exact date, applies:

FOR SALE, a large Iron House, of nine rooms, with rooms for servants, Imported for a gentleman who has now no use for it. Plans to be seen and terms made known on application to CAMPBELL and CO., Campbell's Wharf, March 15. [39]



Wingecarribee, 8 Willow Rd, Bowral, c 1854-7,view: Miles Lewis.



Wingecarribee, entrance face: Oxley College Alumni [cropped]

^[37] Freeland, Architecture in Australia, pp 113-114.

^[38] Information from the Oxley family diaries, Mitchell Library, kindly provided by Megan Martin, 2012.

^[39] Sydney Morning Herald, 15 March 1855, p 2.

Even this may not have been the first attempt to dispose of it, for an earlier advertisement in the Sydney Morning Herald correlates well with the building, and the similar phrasing 'has now no use for it' and 'having no use for it' suggests that the two advertisements are from the same source.

FOR SALE, an Iron House, which is being landed. It is a pretty villa residence, containing 8 rooms. Built by Hemming, of Bristol, whose workmanship is acknowledged to be the best in England. The proprietor having no use for it. is prepared to sell it without reference to profit. The plans may be seen and particulars known on application to Messrs. GOOLD and FIELD, architects, George street. [40]



Wingecarribee, verandah view: Miles Lewis.

Wingecarribee, verandah corner detail: Bob Irving

This earlier advertisement indicates that the building has only just arrived, which is difficult to reconcile with an order placed in 1853.

As the house apparently did not sell, the Oxleys finally erected it in 1857. [41] According to H M Oxley:

The whole of the materials having been imported ready fitted, with a view to saving expense, but in consequence of breakage and various difficulties, the experiment turned out a very troublesome and unsatisfactory one, and little or no saving on the cost of erecting an ordinary brick one. [42]

The house as built differs from the illustrations in that it has a verandah attached to three sides rather than one. But this is a framed timber structure with cast iron brackets and a sheet iron roof, and could easily have been decided upon at the time of erection.

^[40] Sydney Morning Herald, 25 January 1855. p 6.

^[41] Freeland, Architecture in Australia, pp 113-114.

^[42] Maurice Cantlon, *Homesteads of Southern New South Wales 1830-1900* (Queensbury Hill Press, Carlton [Victoria] 1981), p 102.

The late Peter Alsop recorded the exterior of Wingecarribee in detail, and the following dmensions are principally from his notes and sketches. The house measures about 21 by 15.6 metres in a U-shape with the arms in a long direction, and with a roofed courtyard in the middle. The roof is of a very low pitch and is concealed behind an ornamental parapet. The cladding is of 750 mm wide sheets of three-inch square [75 mm] corrugated iron placed vertically and fixed with screws or bolts, with screw heads of half inch [13 mm] diameter. The parapet is a flat iron, with an iron grill in front giving the effect of some sort of balustrade, and interrupted by classical pedestals below each of the urns. The pilasters below are of timber (not of cast iron like those of E T Bellhouse and Edward Maw), 300 mm wide with a recessed panel in the face and a classical base 375 millimetres high, and are linked at the sill height (about 900 mm) by a timber rail on the face of the wall which separates the upper from the lower sheets of iron. The windows are double hung sashes with each sash divided into two panes, and have the louvred shutters which have been mentioned.[43]

The plan accords well with that reproduced above, but for the fact that the open court within the U has been filled in at a later date. A sheet of waxed paper labelled 'Plan No. 1' was still held at Wingecarribee in 1981, bearing the maker's instructions

The plan shows all the framework of the outer sides and the marking and numbering. The struts are lettered A B C. A always being the bottom strut and B the next and so on. The uprights are numbered to correspond with the numbers on the bottom sill and are marked near the bottom and facing the number on the sill. [44]

This seems to imply that the struts were noggings placed horizontally between the uprights, or studs. The materials consisted of framing timbers, oak for sills, cedar for ceiling panels (which seems unlikely to have been supplied from Bristol), and 17 gauge [1.4 mm] galvanised iron for the walls, roof and ridge capping. The walls have a cavity space of one foot [300 mm], much larger than was typically provided in Hemming's buildings for insulation. The ceiling was supposed to have been insulated with felt, but this did not reach the site, and stringy bark was used instead. The package included six panelled oak doors for use in the interior, external louvred window shutters, and presumably the papier mâché rinceau ceiling borders which were attached to a timber base. [45]





Wingecarribee, interior view in the former courtyard, and detail in one room: Miles Lewis.

[43] Notes by Peter F B Alsop of Geelong, 14 November, 1972

[44] Maurice Cantlon, *Homesteads of Southern New South Wales 1830-1900* (Queensbury Hill Press, Carlton [Victoria] 1981), p 102.
[45] Freeland, *Architecture in Australia*, pp 113-114.

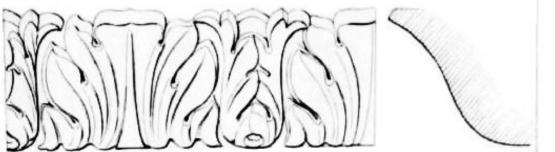
A surviving ceiling shows the system. It is a grid into which the long panels are dropped, resembling the ceilings of some other manufacturers. Around the edge of the ceiling is a margin of flat boards to which a papier mâché rinceau is attached. The board must have been supplied by the maker with the papier mâché already in place, and could be screwed into position. A much smaller papier mâché moulding is attached to the top of the adjoining wall surface. The latter is a foliated cyma, identifiable as the work of the leading London manufacturer C F Bielefeld. The rinceau greatly resembles Bielefeld's work, but a specific pattern for it has not so far been identified. It is also reported that there are papier mâché egg-and-dart mouldings around the door panels. [46]



Wingecarribee, a panelled ceiling with papier mâché border and cornice mould: Miles Lewis.



Wingecarribee, detail of papier mâché rinceau mounted on a board: Miles Lewis



A cyma moulding: C F Bielefeld On the Use of the Improved Papier-Mâché in Furniture, in the Interior Decoration of Buildings, and in Works of Art (Bielefeld, London c 1835), no page.

[46] Judith O'Conell, 'Wingecarribee Shipped and Shaped', *Highlife*, ?2001, p 44.

In February 1855 Hemming was advertising in New Zealand, [47] which may have become a relatively more promising market after the collapse of the gold boom in Victoria. He also did work for the British Army, constructing barracks at Beggar's Bush and at Trim, in Ireland, and five iron buildings at Shorncliffe to be used as regimental school rooms. [48] He then built the Royal Aldershott Clubhouse. But there is no specific evidence to indicate that these buildings were prefabricated, or even made any special use of iron. [49] By now Hemming's works had moved from Clifton in Bristol, to Bow, London. One of his sons, Frederick, had been operating a branch at Birkenhead, Liverpool, and both Hemmings, like many other contractors, supplied large numbers of huts for the Crimean War. Samuel Hemming took on contracts totalling more that £65,000; Frederick Hemming & Co – presumably still at Birkenhead - £9,500 [50]. Samuel also put forward a proposal for a form of half-buried iron barrack for use in the Crimea, which was considered by government but not apparently adopted. [51]

In 1858 Samuel Hemming continued to be listed at Old Ford, but Samuel Charles Hemming & Co are also shown as iron building manufacturers, of 46 Broad Street Buildings, EC. This Samuel Charles was another person, who had been involved in the business for some time, but now seems to have been operating independently. Then in 1859 Samuel Charles Hemming is listed at Old Ford as well. Nothing more is heard of the Birkenhead factory, and Samuel Charles was for all practical purposes the sole heir to his father's business. His known output is slight, and the last we hear of him as a prefabricator is in 1873.

^[47] Daily Southern Cross, (6 February 1855), p 1, a reference kindly supplied by Nerida Campbell. This is erroneously dated to 1865 in Jeremy Salmond, Old New Zealand 1800-1940 (Auckland 1986), p 29.

^[48] Courier [Hobart], 22 December 1855, p 2, quoting the Daily News.

^[49] *Illustrated London News*, 29 September 1855, p 397. Hemming (referred to in the report as 'Herring') had himself designed the 'chaste and appropriate' decorations. The *Daily News* report had put the cost at only £2000.

^[50] Great Britain, Parliamentary Papers, Army Huts. *Return to an Address of the Honourable House of Commons, dated 14 May* 1857;-for "Returns of the Number of huts supplied to the Ordnance or War Departments during the Years 1854-5 and 1855-6; the Appropriation of the same; together with the "And, of the Names of the Several Contractors; Amount of each Contract, and Price per Hut, with Dimensions; the present extent of hut Accommodation in England and Ireland; and the Number of Troops hutted on the 1st day of April 1857", pp 5-6.

^[51] Courier [Hobart], 22 December 1855, p 2, quoting the Daily News.