Tin and Timber-The 'Typical' Queensland House

John Lovett

According to any Real estate agent, any house north of the Tweed River is a "Queenslander".

Geographically, that may be so, but to most of us, the "Queenslander" term refers to a fairly basic house raised above ground level, which has timber walls and a 'tin' roof built on a very light frame. The front, back or side verandah adds to the available living area.

The houses were raised off the ground on wooden stumps to allow cooling breezes to circulate, and to prevent termite attack on the structure. There was a bonus in that the cool space under the house gave a larger living area and could be used for storage as well.

The following list is from "The Queensland House", a publication of the Queensland Museum and shows the elements that are considered to be a part of a "Queenslander".

Any acceptable checklist of attributes of the typical Queensland house is likely to include the following;

- timber and galvanised corrugated iron (tin) materials
- light timber frame with exposed studs on two or more walls
- weather/chamferboard exterior walls
- single skin tongue and groove boards for interior walls
- tongue and groove boarded ceiling, flooring and walling
- steeply pitched roof of some standard shape
- verandahs with decorative timber and/or cast iron trim
- highset on round timber stumps with batten infill
- Traditional garden setting
- timber fencing

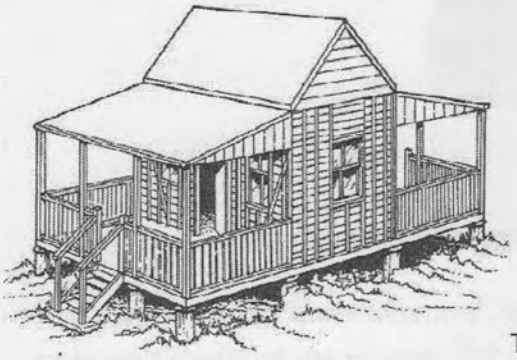
Note that not all the forgoing items will be apparent in every Queensland house.

Similar houses were built in other states, often using locally sourced materials with additional items like brick chimneys in colder areas.

In both 19th and 20th centuries, most families lived in a home on a separate block with a surrounding garden and fencing.

Early houses were often a bark hut. Uprights were driven into the earth floor and a light framework gave the roof support. Over all of this was laid bark split from tree trunks to form both walls and roofs. A light frame sat on the roof sheets to hold them onto the walls.

A more substantial 'slab hut' followed. The walls were slabs split off tree trunks standing vertically around the perimeter of the dirt floor area, and sealed with daubs of mud worked into the gaps. The roof might have been a framework with timber shingles laid in ascending overlapped rows to shed rainwater.



TWO ROOM COLONIAL GABLE.

With the growth of population, timber cutters began to cut down the abundant forest trees for milling at sawmills throughout the state. House structures became more formalised using pit sawn hardwood beams and framing, with cladding of softwood tongue and groove or chamferboards, and a floor of either softwood or hardwood planks.

The floor was raised using vertical wooden stumps capped with metal ant caps to stop termites eating the wooden structure.

Steps led up from the ground to the single floor level. The roof became sheets of corrugated iron with zinc plating for corrosion protection.

With abundant supplies of timber, almost the whole house was wooden, including any added decorative additions. In some cases, cast iron replaced some of the railings and verandah post brackets.

Of course there were variations, mostly depending on the budget of the owners and their perceived social status.

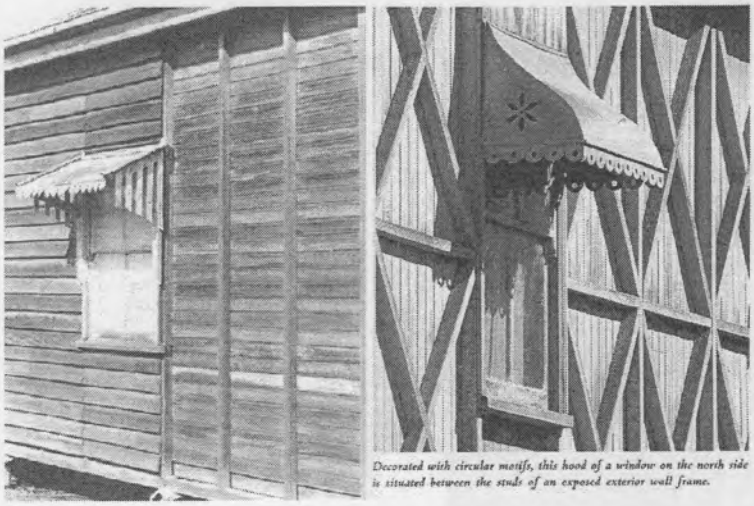
FOUR ROOM COLONIAL GABLE.

FOUR ROOM COLONIAL GABLE HOUSES AT WOOLLOONGABBA circa 1900.

As with motor cars, each 'new model' became 'fatter', with more and larger rooms. To our modern eyes, the dwellings of the late 19th and early 20th century are relatively tiny when compared to our current house sizes. Mind you, the concept of a 'Home Theatre' was not even science fiction in those days. Many rooms such as the kitchen and bathroom were separate to the main house, and the toilet was truly an 'outside' convenience.

The earliest common design of houses which were built across the State were termed 'Colonial' because Queensland was a separate Colony from New South Wales from 1859, and 'Gable' from the steep roof style; Hence the term 'Colonial Gable'. This style was also built in other areas of Australia, but 'Tin and Timber' distinguished the Queensland homes.

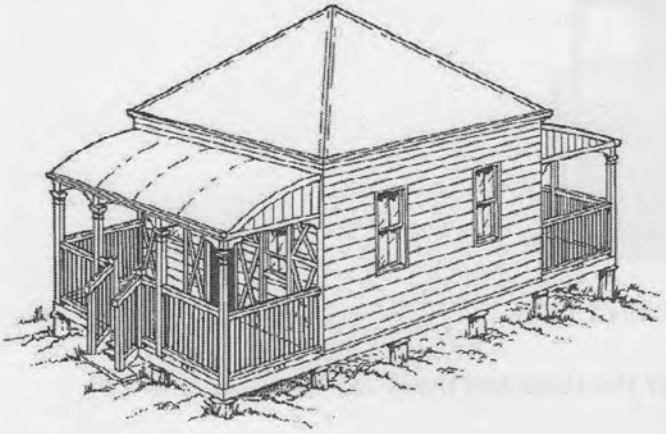
An early style of wall construction was to line the inside face with either tongue and groove or chamferboard and place the framing on the outside. This led to wood rot from rainwater in the lower areas. The practice was discontinued on exposed walls but continued on covered areas like verandahs.



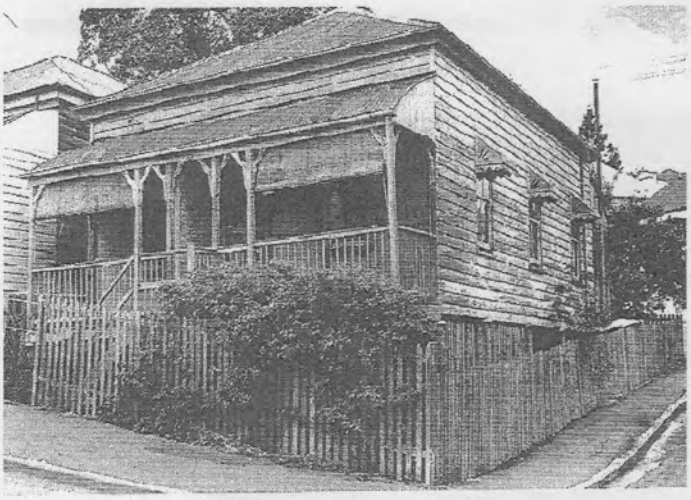
Decorated with circular motifs, this hood of a window on the north side is situated between the studs of an exposed exterior wall frame.

TWO PHOTOS SHOWING SIMPLE VERTICAL WALL BRACING AND COMPLEX VERTICAL HORIZONTAL AND DIAGONAL CROSSBRACING.

Later in the 19th Century came the 'Pyramid' roof. This became 'short' ridge if the core of the house plan was wider than the depth. Another term for the short or long ridge roof is a 'hip roof'. If the verandah roof is not in the same plane with the main roof, it is termed a 'stepped' verandah roof.

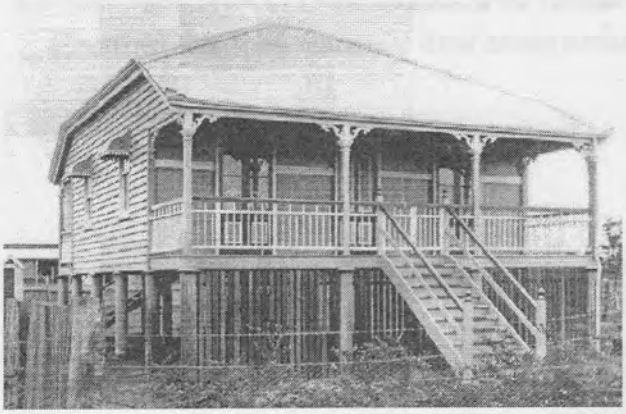


FOUR ROOM PYRAMID ROOF HOUSE.



FOUR ROOM PYRAMID 'WORKER'S COTTAGE IN HALE St. BRISBANE.

Next we saw the 'bungalow' introduced. This had a lower pitched main roof which extended over the verandahs, giving an 'overall roof' to the complete house.



FOUR ROOM BUNGALOW IN BRISBANE circa 1920.

These different styles were built all over the state and there are 'overlaps' in era of construction.

At the turn of the century, the term 'Federation' was used, but there is little visible difference in design of 'Colonial' or 'Federation'. It's purely designating whether the home was built prior to 1901, or after.

Plate 8. *Hughesville, Logan Road, Eight Mile Plains.*
Built in 1892–93, this fine country Colonial has full verandahs, a kitchen house, a fashionable bay window and a crested widows-walk.

HUGHESVILLE AT EIGHT MILE PLAINS, BRISBANE;

TERMED A 'COLONIAL' AS IT WAS BUILT IN 1893.

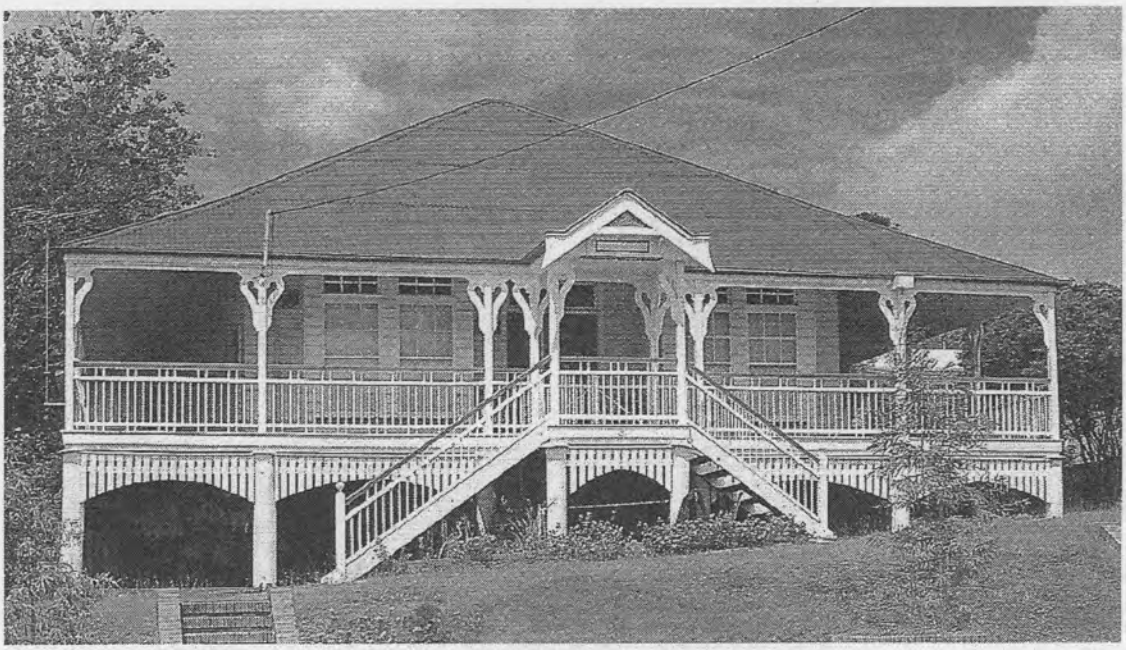


Plate 14. *Kameruka, Roderick Street, Ipswich.* Built in 1917 and later modified, this is a gracious bungalow-roofed timber-and-tin dwelling of the Federation era.

KAMERUKA AT IPSWICH;

AS IT WAS BUILT IN 1917, IT IS TERMED A 'FEDERATION' HOUSE BECAUSE THE BUILD DATE IS POST 1901.

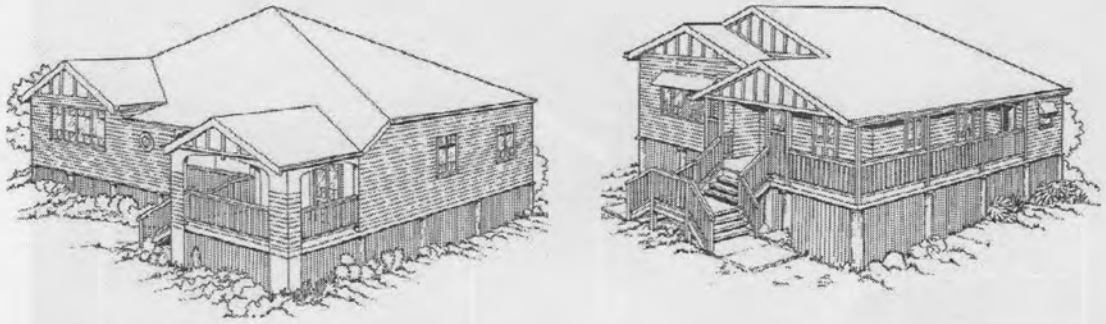
The modern Real Estate term 'Federation' usually refers to a much larger, grander home, often with verandahs all round.

Even though the State of Queensland is quite large, there are similar styles of houses in all areas of the State.

Earlier homes had relatively short stumps, but higher stumps gave better access for finding those invasive termites, and allowed the under floor area to become a washroom, with space to park the family car. That occurred long before the 'beer fridge' was invented.

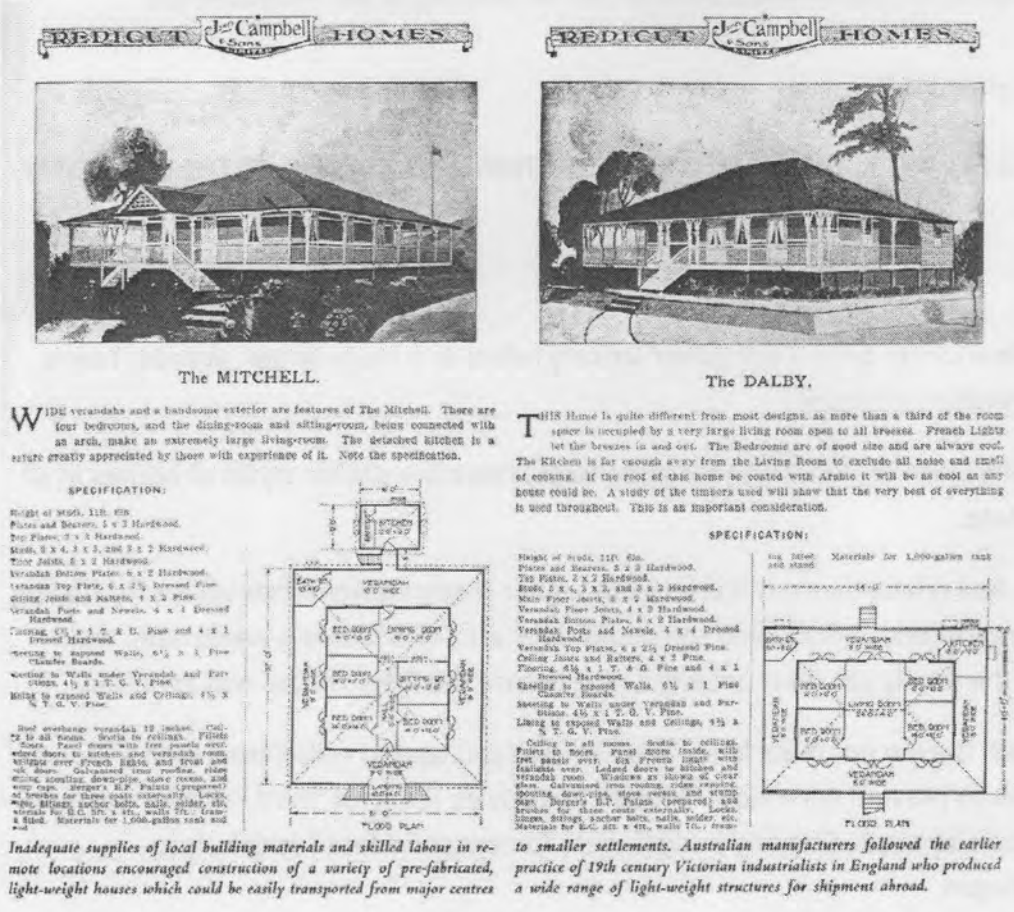
'Tin and Timber' is even not quite true. The 'Tin' was corrugated rolled steel with a 'hot dip' zinc application to prevent corrosion. 'Timber' has a wide range of 'hard, 'soft' or exotic woods which can be used. Size and budget were factors considered long before construction began.

In the period between the two World Wars, the term used was 'interwar', but many of the earlier designs continued to be built.



INTERWAR HOMES; THE LEFT ONE IS BUNGALOW STYLE, WHILE THE RIGHT ONE IS A DOUBLE GABLE.

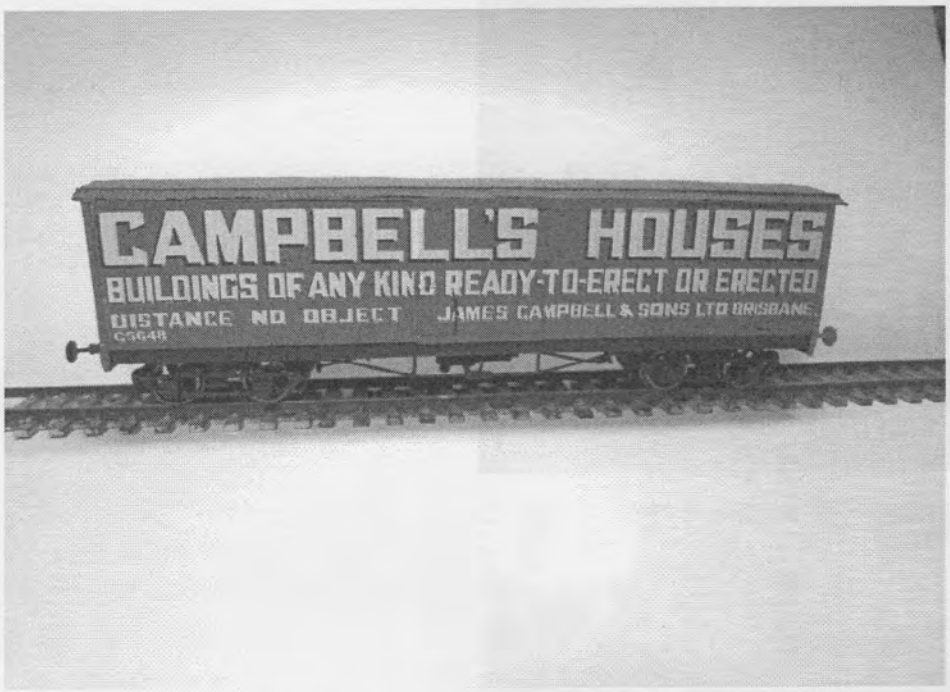
In Queensland, the Workers Dwelling Scheme provided finance from 1909 for the construction of approved designs. This became the State Advances Corporation in the 1920's. Later it was renamed the Queensland Housing Commission.



Inadequate supplies of local building materials and skilled labour in remote locations encouraged construction of a variety of pre-fabricated, light-weight houses which could be easily transported from major centres to smaller settlements. Australian manufacturers followed the earlier practice of 19th century Victorian industrialists in England who produced a wide range of light-weight structures for shipment abroad.

TWO HOME DESIGNS WHICH WERE PRODUCED IN KIT FORM AND SHIPPED ALL OVER THE STATE FOR ERECTION ON SITE.

Many of the larger sawmilling firms assembled house 'kits' which were delivered all over the State by the Queensland Railways.



A MODEL OF A QUEENSLAND RAILWAYS 'C' WAGON WITH ADVERTISING FOR PRE-CUT HOMES WHICH COULD BE SUPPLIED.

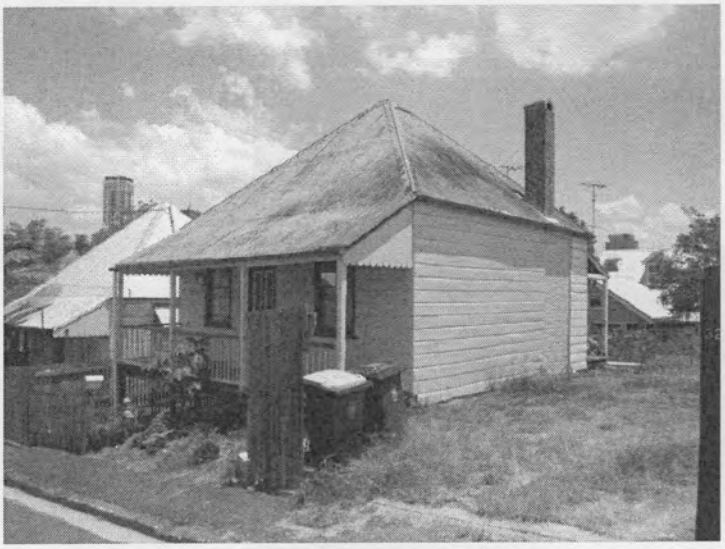
Post World War 2, the introduction of 'fibro' flat sheets and tiled roofs made inroads into the number of houses being built, and 'tin and timber' houses reduced in proportion.

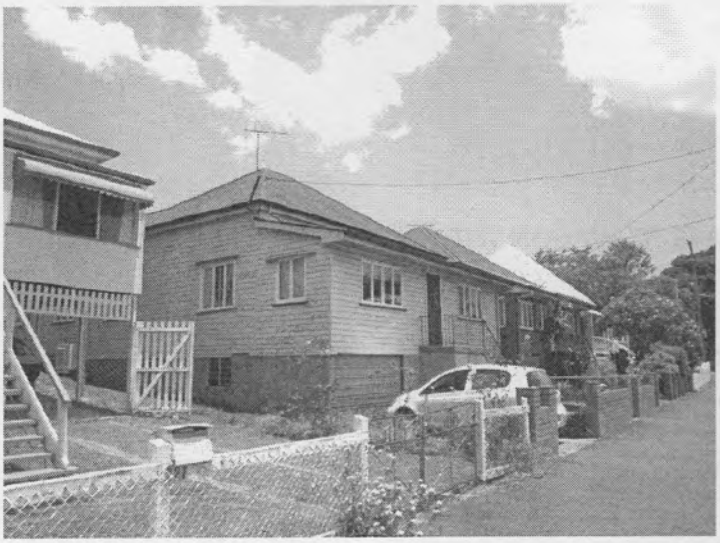
Again, cost and ease of construction were major factors, along with declining available quantities of good quality timber.

Over the years many of the 'Tin and Timber' houses have been rebuilt with verandahs enclosed and bathrooms and toilets moved inside. In some cases, it's quite hard to distinguish what the original might have been.

It's possible to find many of the older homes still around. The inner Brisbane suburbs still have some 'Colonial Gable' homes, along with the 'Pyramid' roofed variety. The 'Bungalow' style homes are much more numerous. A visit to Brisbane's Spring Hill, West End or Woolloongabba with a camera will give you plenty of photos and many ideas for your house models.

The older inner suburbs of Brisbane, and Ipswich were the early settled areas of the State which had relatively small houses. These small houses are ideal for our purposes.





THESE THREE PHOTOS ARE TAKEN IN THE SPRING HILL AREA OF BRISBANE.

BUNDAMBA; ALONGSIDE THE QPSR LINE.

CAPALABA; LINSEED OIL WAS APPLIED TO THE EXTERIOR, NOT PAINT.

1924 BUILT BUNGALOW AT GORDON PARK.

Over the years there have been many changes to homes built in the 19th and early 20th century.

The Gordon Park home above was built on a steep hillside, with the land falling away to the back of the block. It was owned for 53 years by a family with six children. In the post war years the two verandahs were enclosed to enlarge the living space, and the underfloor area was bricked in. It has changed owners six times in the last 35 years, with each new owner modifying the house to suit their needs. It has had the underfloor brickwork removed and replaced twice, once because the floor was raised about one metre. The original rear stumps were nearly six metres long above ground level. The outside verandahs were opened up and the present owner has constructed a three level extension at the back, because with the verandahs open, there was not much enclosed living space left.

That's truly a 'good' sample of the changes which some of these houses endured.

In the late 1960's and 1970's, the 'Brick Veneer' style of house which had gained popularity in the southern states became common. With this style of construction, which reduced the maintenance task of 'painting the house', the numbers of wooden houses fell drastically. Brisbane became indistinguishable from other Australian capital cities with tiled roofs on view everywhere. Steel reinforced concrete slabs became the foundation of the home, and the useful 'under the house' area disappeared. Outside garages and carports appeared for housing the family car.

AN 'A.V. JENNINGS SINGLE LEVEL BRICK VENEER HOUSE BUILT IN 1969.

BUILT ON A CONCRETE SLAB WITH PLASTERBOARD INTERNAL WALL LINING.

THESE 'DOWN SOUTH' DESIGNS CHANGED QUEENSLAND"S LIVING STYLE FOREVER.

Thankfully, our regional towns continued to build in 'tin and timber'. With a nostalgic trend to revive memories of the past, there has been new construction of older homes in original visual styles, but with modern construction methods and increased structural strength. There has been a trend to refurbish many 'oldies' in their original styles.

What has changed with these new built homes is that they are built on much smaller blocks of land than the original 'Queenslanders'.

In modern times, there have been many 'skillion' roofed homes built. Whilst many are considered 'upmarket', they are not my 'cup of tea'.

Give me the 'oldies' style anytime.

MODELLING QUEENSLANDERS;

For this segment, I've confined my modelling descriptions to two types of 'typical' Queenslander, the 'Colonial Gable' and the 'Pyramid Roof'. Most of the floor plans can be easily modified to take either type of roof, and this will give some variety to your efforts.

One other trick is to flip the plan over and build a mirror image of the original house.

I have found plans in various locations, and some are included for your use. These were very simple structures and if you wish to draw your own plans, keep the room dimensions to (say) 10 by either 10 or 12 feet and you will have a building which is 'right' in proportions. Juggle the dimensions and it will work out as a 'box' for the living space.

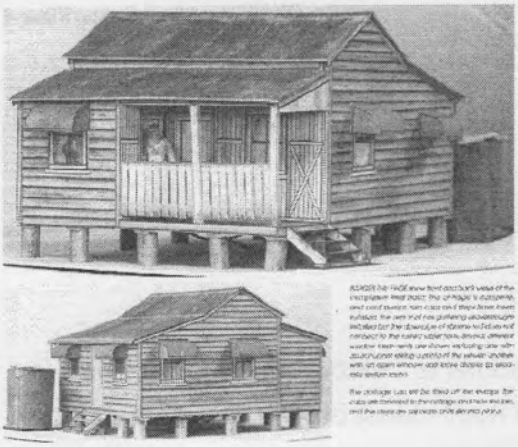
All of these drawings use Imperial measurements, as they were drawn prior to the 1970's when Australia changed to the Metric system.

For the Railway modeller, the most important dimensions in the Imperial system are the foot and the inch. These basic dimensions measure 305 millimetres and 25.4 millimetres respectively.

To save you the drudgery of much mathematical work converting one to the other, you can buy a scale rule for about $12.00. Using the appropriate scale for your modelling needs, (HO, N, S or O) you can read an Imperial dimension directly off the scale for your sketch or drawing.

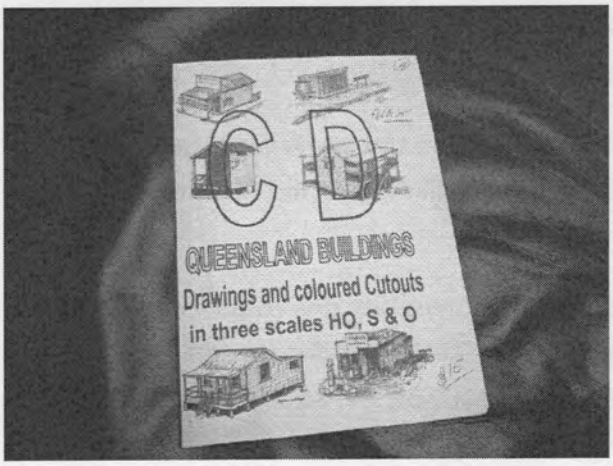
There are some simpler ways of having buildings for your Railway. The 'Little Building Company put out a range of laser cut wooden kits suitable for Queensland layouts in HO and N scale. The available range of buildings can be seen at www.littlebuildingco.com.

Cardboard buildings are available for our models as well. In 'HO", a wall from flat cardboard is acceptable, but in the larger scales I had always considered that the flat representation of weatherboard did not look 'right'. At BMTS 2012 I saw a Colonial Gable house in 'O' scale made of flat cardboard and it came up well. It just shows that there are different ways of doing things.



'O' SCALE COLONIAL GABLE COTTAGE IN CARD BY LYNN ZELMER. This is from a 'NARROW GAUGE DOWN UNDER' Article of April 2011.

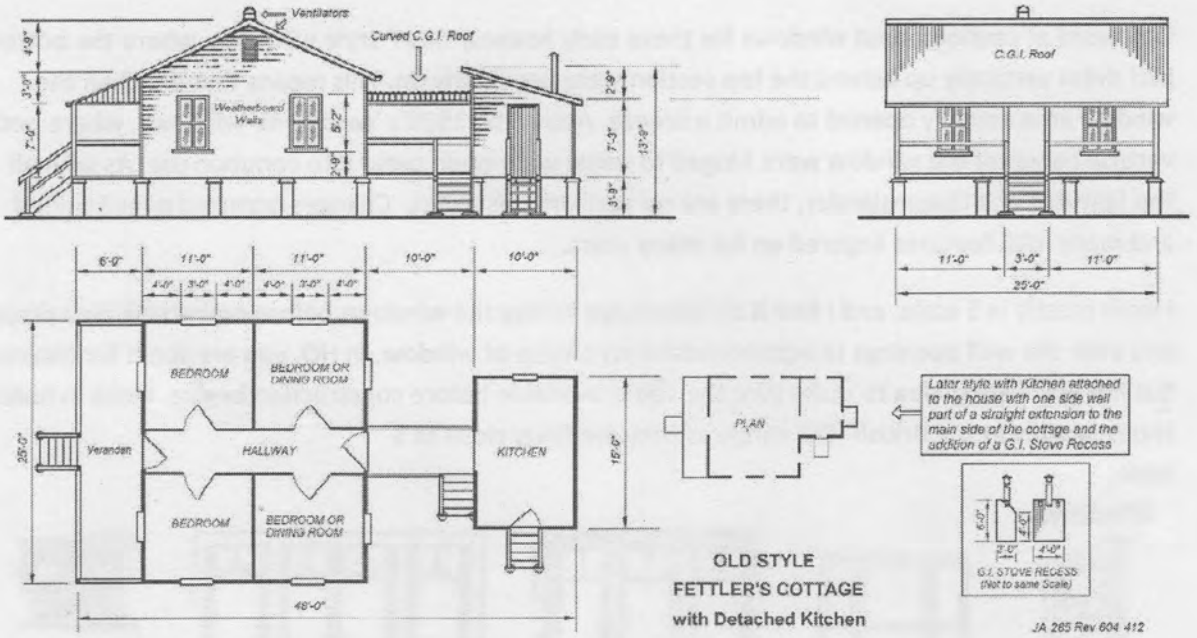
From 'Ladndad', there is a disc available which has a wide range of Queensland buildings in HO, S and O scale. These are printed out on your home computer printer onto 200 gsm light card and cut out and glued together to give the finished structure. Personally, these are favourites of mine, but I substitute different materials for some parts of the structures.



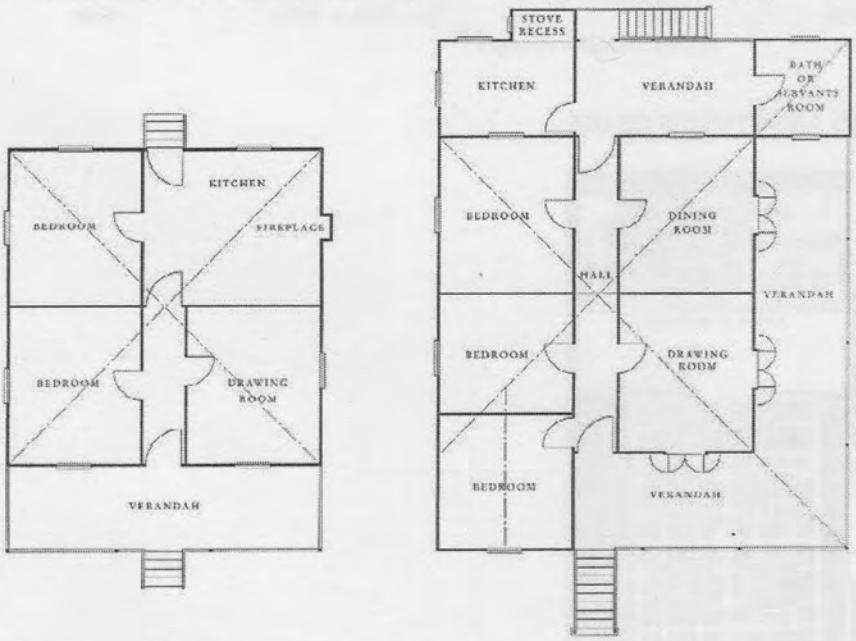
LADNDAD'S COVER FOR THEIR CD OF QUEENSLAND BUILDINGS.

Available from Jim Fainges - phone 07 3355 4408.

Here's a "Fettler's Cottage" drawn by John Armstrong. You will notice it's almost the same as the 4 room Colonial Gable but does not have the stepped front verandah. It has a separate kitchen at the rear. That can be deleted if you want only a four room structure. Note the simple dimensions used for the sizes of the rooms and the doors and windows.



This is the ideal situation, but sometimes you might only have a less detailed plan.



THESE TWO PLANS ARE SIMILAR, WITH THE RIGHT HAND ONE BEING 'EXPANDED' WITH A BUNGALOW ROOF.

We can treat the core of the house as a simple 'box', and unless you wish to detail the inside, most of the internal walls can be ignored.

My method of modelling a house (or any other building structure) is to build up a 'kit' of parts, comprising walls, roof, floor, underfloor and ground, and then assemble the lot. It's usually a good idea to paint the bits as you go. If the house has verandahs, it is not easy to paint the details without fouling up something. Things like verandah rails are built as a sub assembly with support posts and set into the structure so that they can be held securely with adhesive until they are 'solid'.

One word of caution about windows for these early houses; 'Sash' style windows, where the bottom half slides vertically up behind the top section were used early on. This means that only half the window area actually opened to admit a breeze. About the 1920's 'casement' windows, where both vertical halves of the window were hinged to swing wide open came into common use. As with all the features of a Queenslander, there are no hard and fast rules. Changes occurred over a period and many 'old' features lingered on for many years.

I work mostly in S scale, and I find it an advantage to buy the windows before embarking on a project and alter the wall openings to accommodate my choice of window. In HO, you are spoilt for choice, but it is still a good idea to make sure the size is available before construction begins. I look in hobby shops, mostly at the British 'OO' range as they are fairly close to S scale.

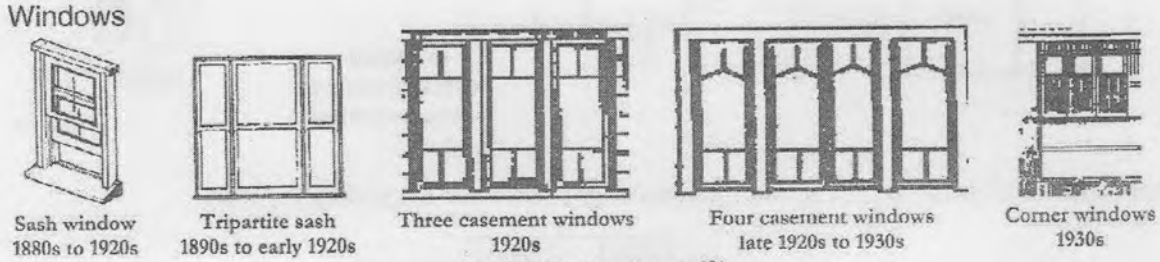
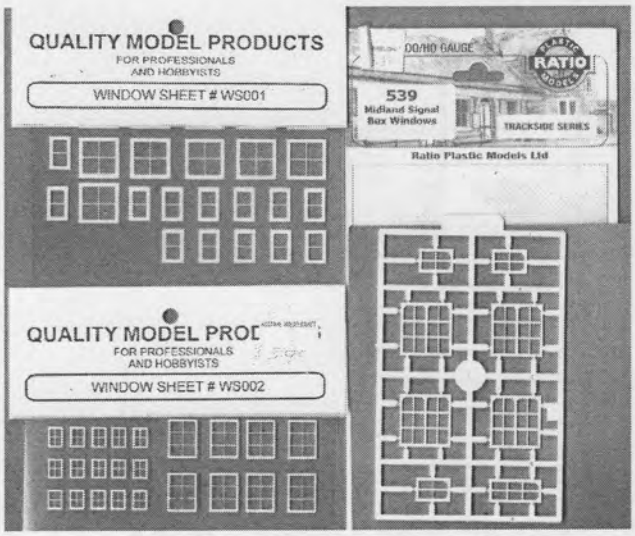


Fig. 150: Window changes[124]

VARIOUS TYPES OF WINDOWS AND PERIODS OF USE.

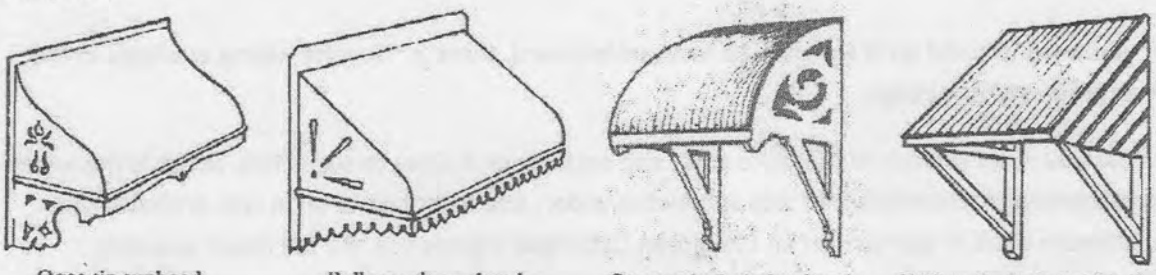


SUITABLE WINDOWS FOR S SCALE. They will be used in both 'closed', or 'open' states.

For HO, you are spoilt with products like 'Grandt Line' available.

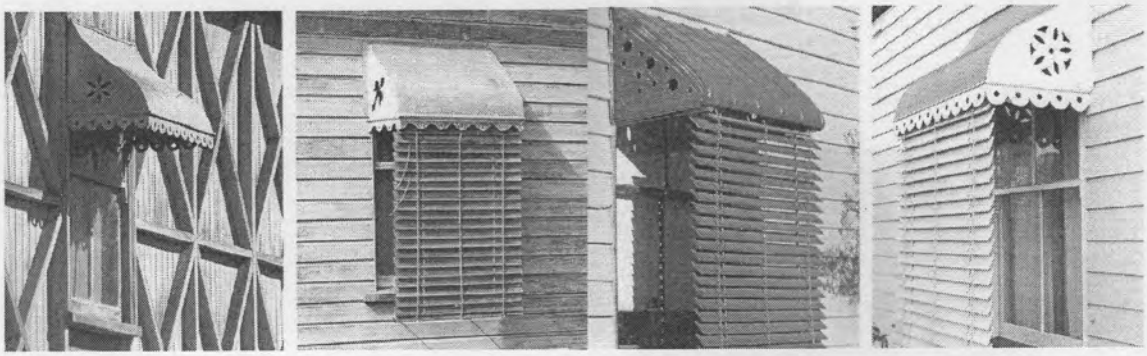
Over the windows were often fitted 'window hoods'. They protected the woodwork from the harsh climate and were used on all walls, not only those with sun on them.

Sunhoods



Ogee tin sunhood 1880s to late 1890s | Bullnose tin sunhood 1880s to 1910s | Convex tin & timber hood 1910s to 1920s | Skillion tin & timber hood 1910s to 1920s

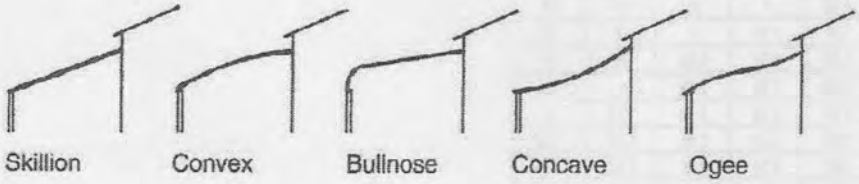
Fig. 147: Sunhood changes[120]



Metal sunhoods; These are made of flat metal sheet, which can be modelled in thin styrene or cardboard. If corrugated iron (like the sketch on the far upper right) is used, the frame is wood, and can be built from a modified wooden slat fence kit, with styrene bracing.

The side holes can be carefully cut from a master template by hand, or else a small paper punch from a craft shop might be used. Always be on the lookout for helpful tools or materials.

There are different shapes of sun shields, as are verandah roofs and they are shown here.



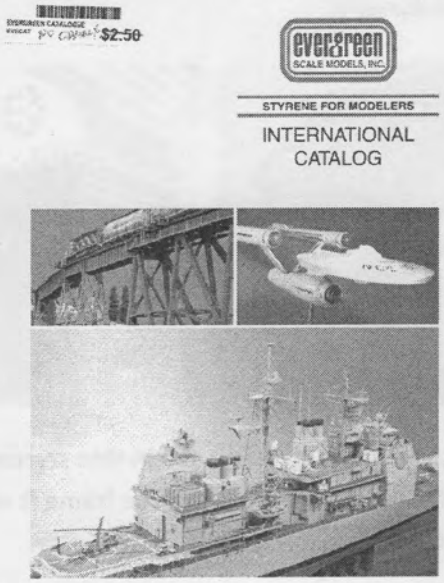
VERANDAH ROOF PROFILES

The convex and concave shapes, I make by gluing an old aluminium venetian blind on the 'not seen' side. If you want bullnose, it would need a more solid shape using quarter round styrene and a thicker 'flat' roof. You don't see under a roof. I don't spend time modelling unseen bits.

Walls can be made from a variety of materials. If you are modelling a wall in weatherboard, there is a range of wooden 'clapboard' (that's what the yanks call it) available from Northeastern Scale Models (www.northeasternscalelumber.com) and a very good selection in styrene from the Evergreen range.

If you want to build an O scale house in Chamferboard, there is 'Novelty' siding available in the Evergreen styrene range.

What you need to do is to calculate what size equates or is close to six inches, which is the width of weatherboard. Chamferboard was somewhat wider, and eight inches wide was probably the maximum used. If you can get an Evergreen Catalogue it gives you the full range available. There are various other shapes and cross sections which will be helpful for posts and framing.

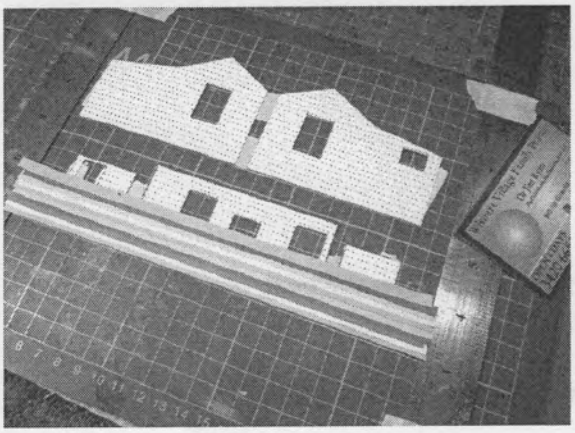


SCALE CONVERSION CHART

ACTUAL SIZE		N 1:160	HO 1:187	1:72	S 1:64	O 1:48	1:35	1:25
Inches	Nearest Fraction	SCALE INCHES						
.010	1/100	1 1/2	7/8	3/4	5/8	1/2	3/8	1/4
.015	1/64	2 3/8	1 1/4	1 1/8	1	3/4	1/2	3/8
.020	1/50	3 1/4	1 3/4	1 1/2	1 1/4	1	3/4	1/2
.025	1/40	4	2 1/8	1 7/8	1 5/8	1 1/4	7/8	5/8
.030	1/32	4 3/4	2 5/8	2 1/8	1 7/8	1 1/2	1	3/4
.040	1/25	6 3/8	3 1/2	2 7/8	2 1/2	1 7/8	1 3/8	1
.050	3/64	8	4 3/8	3 5/8	3 1/4	2 3/8	1 3/4	1 1/4
.060	1/16	9 5/8	5 1/4	4 3/8	3 7/8	2 7/8	2 1/8	1 1/2
.080	5/64	12 3/4	7	5 3/4	5 1/8	3 7/8	2 3/4	2
.100	3/32	16	8 3/4	7 1/4	6 3/8	4 3/4	3 1/2	2 1/2
.125	1/8	20	10 7/8	9	8	6	4 3/8	3 1/8
.188	3/16	30	16 3/8	13 1/2	12	9	6 5/8	4 3/4
.250	1/4	40	21 3/4	18	16	12	8 3/4	6 1/4

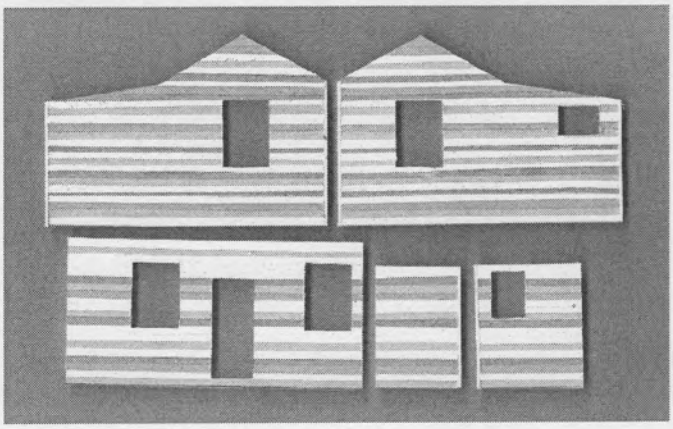
The scale conversion chart is helpful in determining which size you need for a particular dimension.

The way I build most of my buildings is to use an elevation of the wall on cardboard and to overlay from the bottom up, a strip of light cardboard to represent a weatherboard. These strips are about eight scale inches wide, cut with a sharp knife and a steel ruler, and are laid so that six scale inches is visible. It's a slower process, but it is economical and the inevitable slip up of spacing gives the look of a wall which has "lots of character". Rather a good effect for older and somewhat tired buildings.



CARD HOUSE WALLS UNDER CONSTRUCTION.

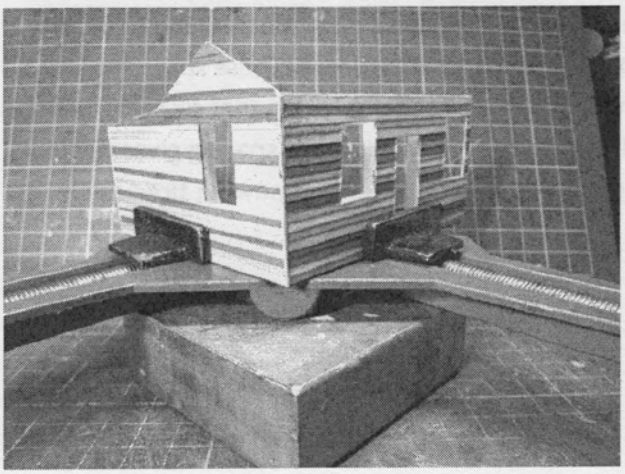
The adhesive I use is a 'Craft Glue'. It is water soluble but is thicker than PVA and does not seem to 'wet' the cardboard as much as PVA. It's painted on with a small brush and then weighted down with a ceramic tile to fully dry before the next step. All the walls are done together to speed things up.



COMPLETED WALLS FOR A COLONIAL GABLE HOUSE.

The different coloured (toned) strips are only to show the method of construction.

Next, the opposite corners are glued together in a 90 degree jig, and a bead of glue run down the joint. This is the only 'fancy' tool I use. All the other tools are simple sharp knives and steel rulers.

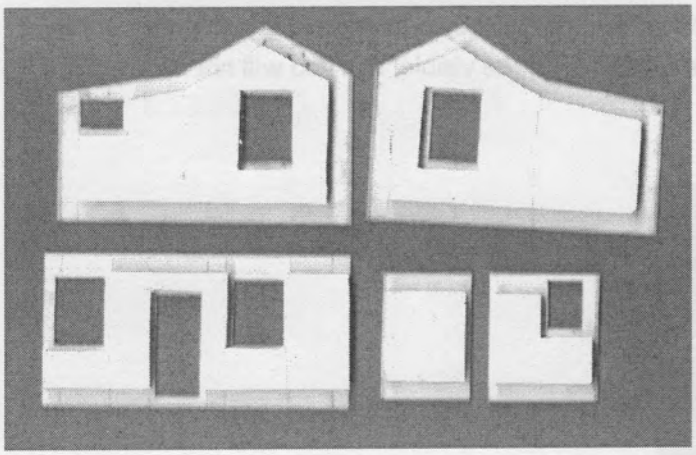


GLUING THE CORNER WALLS. Note the strip of vertical wood to cover the edge of the weatherboards. That's just a bit of scrap trimmed off with a sharp knife and a steel rule.

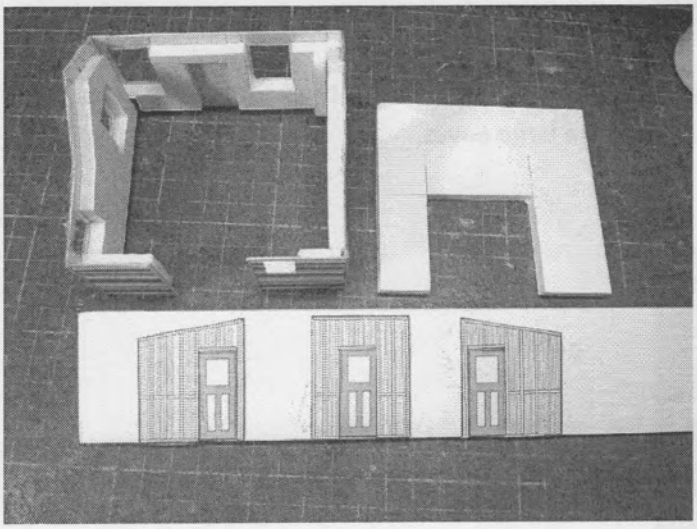
Once both opposite corners are glued solidly, I assemble both halves together on a flat surface.

One thing which must be done with cardboard walls is to put an internal brace to keep the outside wall flat. I use six millimetre thick foamboard shaped to follow the wall, but cut smaller, and pressed onto the wall under a weight until the glue is fully dry.

As I said, it takes time, but the materials are most economical. Even the cardboard from cereal boxes can be used after they are emptied.

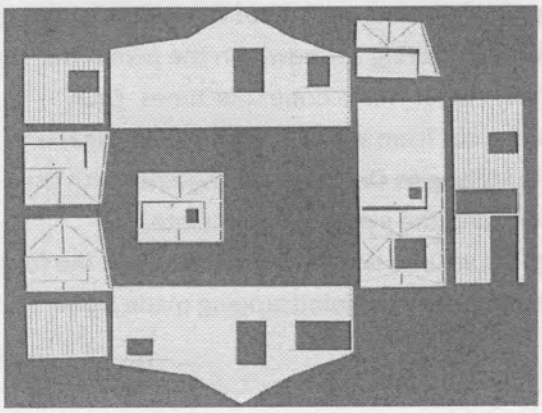


FOAMBOARD BRACING FOR THE COLONIAL GABLE.

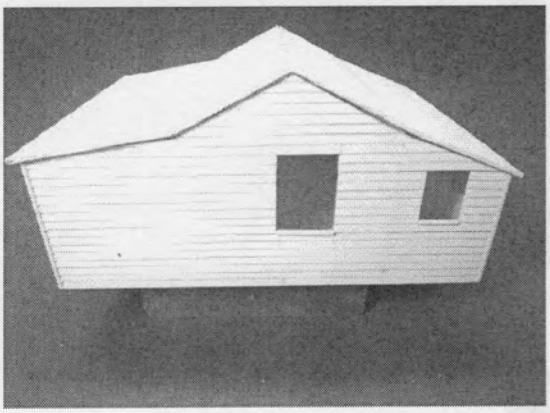


MAIN WALLS TOGETHER. The rear verandah wall is used as it comes in the Card model printout. The rear verandah is not easily visible so it is used 'as is'. Doors are from the printed kit as well.

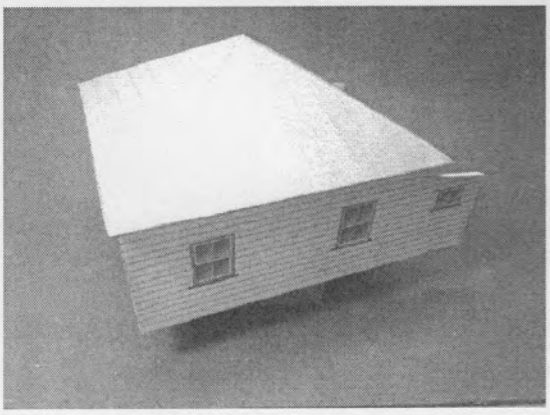
If modelling in styrene it's a lot easier. Using drawings and measurements, the house walls can be cut from clapboard and the inevitable 'kit' is collected. There's no need to brace the walls heavily, but they are braced after the four walls are put together. This is a modified Colonial Gable house.



The corrugated roofing I use is either from the "a.m.r.i." range, or Evergreen styrene. Do not mix different brands of roofing material on one model. It's quite visible, and you will not be happy!



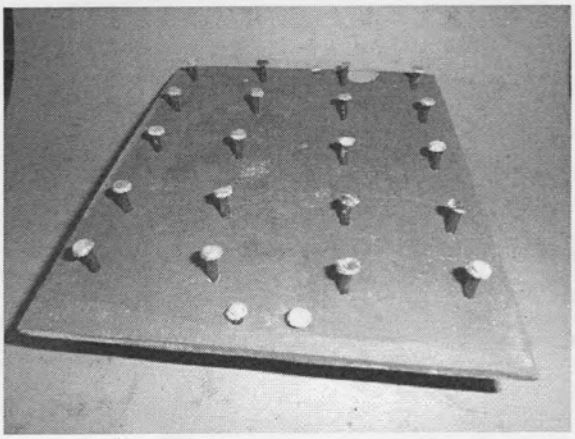
THE SIMPLEST ROOF; A GABLE. The corrugated styrene has been cut to the width of the house, plus one foot. The houses of the Colonial era did not have large eaves.



A PYRAMID ROOF; To draw and make this roof, the length of the diagonal joint must be calculated.

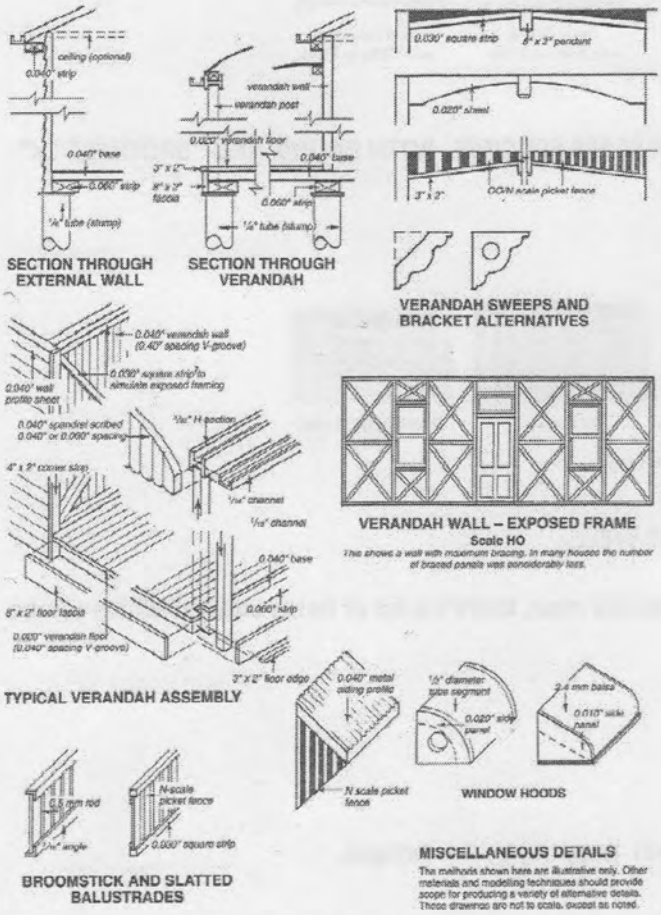
The plan of the roof shows the length of the diagonal joint, from the peak of the roof to the corner joint, while the elevation gives the height. If these two lines are shown as a right triangle, the diagonal becomes the length of the roof joint. Using a pair of dividers, a circle of this radius is swung on a piece of cardboard. Then, the length of the roof at the guttering as shown on the plan is marked on the circle, and the radii drawn back to the centre of the circle. This is done four times. Each triangle marked is one side of the pyramid roof, and can be cut from styrene, with the corrugations at 90 degrees to the gutter line. Using MEK sparingly, two triangles can be glued together with the gutter lines at right angles. Similarly, add the other 2 sides and the pyramid is complete. For modelling there is no need to have any internal bracing. It's wise to use an internal brace at the four joints of the roof. Gutters can be made from styrene channel, and the joint capping made from paper or thin aluminium.

The base of the house is a thin plywood sheet with black painted bamboo skewers of about nine scale inches diameter, pre - cut to the length required and fitted into holes drilled in the plywood. Ant caps made from paper punching coloured with pencil lead glued to the tops of the stumps. As the glue dries, these are pushed down around the top of the stump and the ant caps will take this shape.



THE BASE FOR THE HOUSE. This will have the house floor glued to the tops of the stumps.

Jim Hutchinson has these sketches of details for the finishing touches;



DETAILS FROM AN ARTICLE BY JIM HUTCHINSON IN AMRM: OCTOBER and DECEMBER 2002.

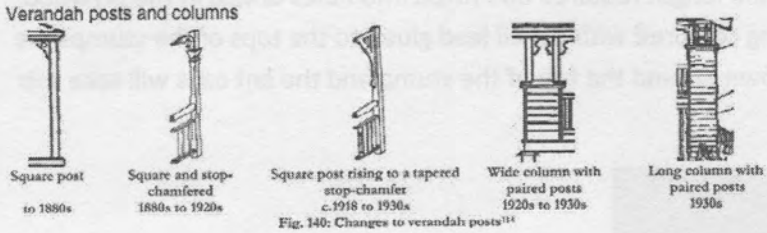


Fig. 140: Changes to verandah posts[114]

Fig. 142: Changes to verandah brackets

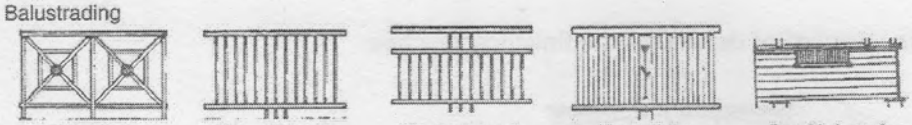


Fig. 143: Changes to balustrading[115]

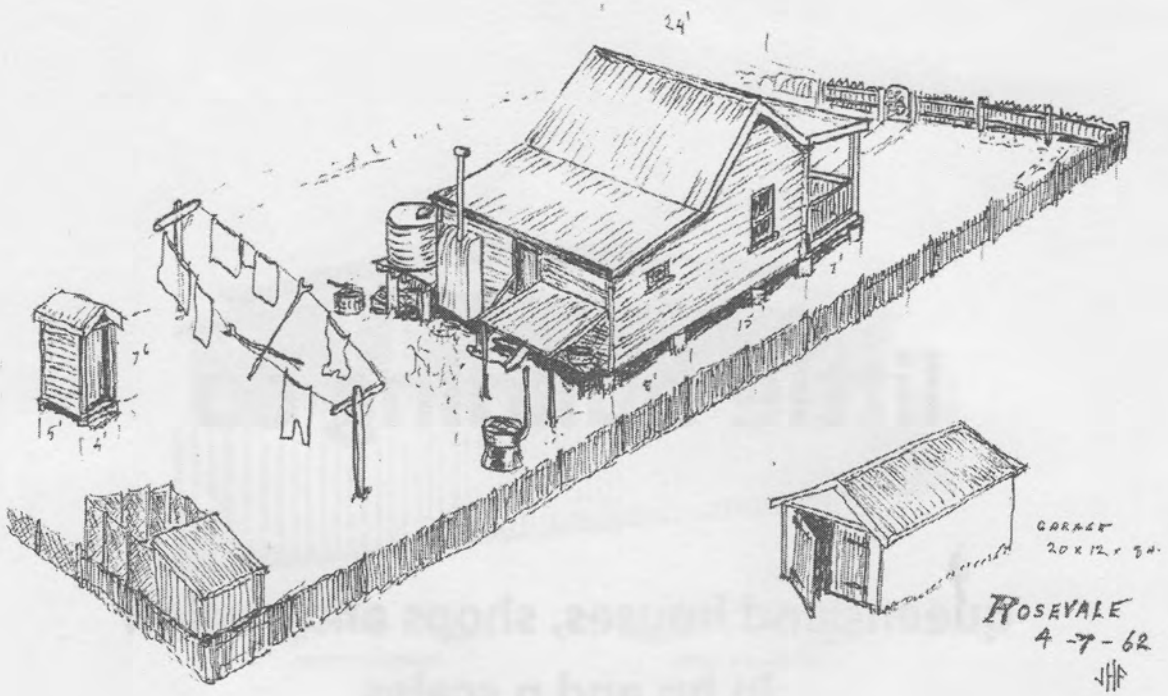
BALUSTRADES CAN BE MADE FROM SMALLER SCALE FENCING, BOTH PALING AND "BROOMSTICK".

Fig. 154: Changes to front fencing

FRONT FENCES CAN USE MANY FENCE KITS AS WELL.

Have a good look around each hobby shop you are near, there's a lot of items and kits which can be adapted for our purposes.

And don't forget to detail the backyard as well! Drawing by Jim Fainges.



John W.P Lovett 2012.

My special thanks to all those modellers who helped me in researching the material for this presentation, and for loaning their models and reference books.

Jim Hutchinson, John Armstrong, Les Downey and Jim Fainges.

References;

Jim Hutchinson; AMRM articles October and December 2002.

John Armstrong; Modelling the Queensland Railways Scene. 2004.

Jim Fainges; CD Queensland Buildings. 'Small Things that Count' MRQC 2000.

'The Queensland House'. R. Fisher B. Crozier. Qld Museum. 1994.

'The Queensland House'. I Evans and the National Trust of Qld. 2001.

'The Australian House'. B Saini, R Joyce. 2002.

'Brisbane House Styles 1810 to 1940'. J.G. Rechner. 1998.

Photographs of existing buildings by the author.

Stairs 45° stringer
Back 2'6" wide
Front 3'6"