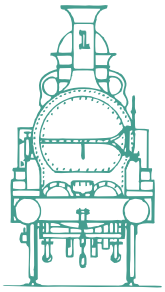
Railscale



NSWR ASHBURY CARRIAGE OF 1879

A brass model in HO ie. 3.5mm to 1 foot.

Proudly designed and made in AUSTRALIA

This Kit can also be used to make the model for the alterations when lavatorys were provided. Code L C B.
No History of the prototype has been included here as much has been written elsewhere.

Additional Items Required.

You will need;

a. 6 axles and wheelsets of eight split spoke x 12mm diameter wheels for HO models (Maygib, Alan Gibson or Ultrascale), including the top hat bearings. If you use other wheels, make sure they are of the narrow type wheels, about 90 thou, because clearance within the chassis is critical as these wheels are 3'6" dia. and sit up inside the chassis turn down. If this model is eventually produced for 4mm and O gauge, you will need 3'6" dia. eight split spoke wheels to suit your model.

b. 8 off cast white metal lamps (9 if making the lavatory model) for the HO and 4mm models. (Available from David Smith of Pioneer Scale Models, who can also supply the wheels) O gaugers will have to make their own.

c. Brass or nickel silver wire of various sizes from 12 to 30 thou for footboard hangers, handrails, truss rods etc.

d. Small coil springs, available from hardware stores for the bogies and coupling hooks.

e. Approx. 1mm thick aluminium or 50/60 thou styrene or ply wood for the body floor.

f. Buffer bodies. - either turn your own or get some similar sprung buffer, maybe some similar in the Cavendish range.

References

The various sources of information used to design this model;

a. "Passenger Cars of the N.S.W.R." by Len Clark.
b. "New South Wales Railways - The First Twenty-Five Years 1855 - 1880" by Australian Railway Historical Society, N.S.W. Division.
c. A.R.H.S. Bulletin No. 400, February, 1971.
d. S.R.A. Line diagrams for the CB and LCB carriages.
e. "Midland Railway Carriages, Vol. 1." by R. E. Lacy and George Dow.
f. "19th Century Railway Drawings in 4mm Scale" by Alan Prior.
g. Eddie Garde's personal visit to the National Railway Museum, York, U.K. and discussions with the Librarian. (On my birth day in 1990, a very nice way to spend one's birthday !)

Much has been written about these carriages, but from the discussions with the N.R.M. it would appear that our carriages were a separate order from the Ashbury Company and not left-overs from a Midland Railway order.
Orders were placed by the Midland Railway to the Metropolitan Railway Carriage & Wagon Company and the Ashbury Company in May 1875, and it appears they were all delivered by 1876, and there is nothing in the Midland records to show that any of these carriages were sold to the N.S.W.R.
Ours were introduced to the system in 1879, some three years later, and going by the photographs, theyare different to those of the Midland Railway, which to me, would indicate a separate order.
The Midland carriages had solid wooden wheel centres, as the Midland photos show, the photo of ours shows metal split spoke wheels, BUT there is a N.S.W.G.R. drawing of an 'Ashbury Carriage Bogie Wheel' with a wooden centre ! , maybe they came like that, or the drawings came first, the wooden wheel centres proved unsuitable and they were changed? Does anybody know ?

Externally, I see the differences as being;

a. The Lamps.
b. The ventilator panels on ours are a full semi-circular end, where theirs have square ends with rounded corners.
c. Ours have a ventilator over the windows, the full panel between the doors, theirs do not.
d. Ours have a horizontal bead moulding across the end of the carriage, theirs only have vertical panels.
e. The panel immediately under the windows on ours have square ends whilst theirs have semi-circular ends
f. The axle boxes look different too.

Then to confuse the issue, the photo of our 117 and 41 (or 44) show that the side panels vary. This model is based on the photo of 117.
The photo would have been taken between 1889 and 1892, between renumbering changes.

It is assumed that you already know a bit about the Ashbury Cars and have photos etc., otherwise you would not be attempting this model.

The Model

This model is probably the most complicated but exacting and satisifying model that you will ever build, so if care is taken you will have a very beautiful model of the 'Finest' carriage to run on the N.S.W.R.
It is definitely NOT suitable for a first model, and I assume that you have already constructed brass kits before and know how to solder etc.
It has been designed so that nearly all the soldering is done from the rear face, so that none of the detail is spoilt, and I find it is best to use just enough solder to hold it rather than to plaster it on.
There is not much 'Modeller's License' allowed, some of the parts are quite small and there have been spares of these small parts provided in the frets. Sometimes you hold a small part in the tweezers and PING ! it's gone)
I find an Engineer's scriber very handy, especially to run down a fold line prior to folding.
A fibreglass brush, available from watchmakers' suppliers, and a brass suede brush can be very handy for cleaning up.
Sometimes in the instructions there is mention of folding on the fold line back on itself, - this means fold it the OPPOSITE way.
These instructions were written whilst I was making my model, which came from the very same frets that you are using.

Read the instructions a couple of times, study the diagrams, get a grip of yourself and lets GO++++

BODY

1. Leave the parts in the fret until it is time to use them.
2. Take out a body side and file tags flush.
   Where the end of body step brackets occur, turn the fret over and you will see two dots for each bracket. Slightly punch these to form the bolt heads for the brackets on the other side.
3. Cut a small piece off the fret and form a point about 4" wide (ie. scale 4") and stick into the hinge and ventilator slots to clear them. File off any burrs on the back.
4. Then to be sure, clear the hinge slots from the rear side.
5. Get a common timber ruler, or anything up to about 1.5mm thick, and place the body side face down, with the body side bottom edge just resting on it. With a piece of about 12mm dowel or tube, press and roll in the tumblehome (Fig. Bd1) File the inside back edge of the corner where the tumblehome occurs so that when the end is bent around later, that there will be a nice join on the corner (Fig. Bd2.)
6. When you are satisfied that you 've got the tumblehome right, fold the bottom edge, under.
7. Take the window fret and fold the top section over to the roof slope.
8. Carefully fold out the hinge knuckles, to the front, from the back, making sure that they are kept square and in a straight line. (Fig. Bd3) Run a file lightly down both sides to clear any burrs. Bend the bottom hinge section round slightly to suit the tumblehome.
9. Push the window fret into the back of the side fret, and if your've done everything right, it should clip into place.

9. (cont.)

Solder at the hinge points, at this time only, from inside.

10. Push the sharp point of the Engineer's scriber, or a pin in a pin vice, into the door and 'S' handle holes to clear them enough to fit the handle tags. This saves using small drills which are expensive if you break them.
11. Carefully remove the door handles, fold at 90° on the fold line, touch solder the fold and fit into the door. Space the handle off the side with a small piece of cardboard, hold it in place and solder from the back.
12. Carefully remove the 'S' handles, fold the tags back at 90° as for the door handles and solder the fold. Run a file over the tag ends, to clear any burrs and fit into the holes. Long tags have been provided so that once the tags are through the hole, they can then be pulled through with pliers. Once again, space the handle off the side with cardboard, check that the handle is sitting correctly (Fig. Bd4), you can bend the tags at the back to get it right, then solder from the back.
13. Once all the handles are in, file the back flush, so that the glazing will fit hard against the back face.
14. Now comes the time to fit the ventilators. This is not as hard as it looks. Cut out the ventilators (you have some spares), corresponding with the letter marked on the side, ie. A, B, C etc., run a small file over the edges to get rid of the etching marks, fold the end tabs to the rear, round off the rounded ends and fit into the slots. They clip into place, but to be sure, bend the tabs slightly after they're in, to hold them in place. You may have to use a 'C' ventilator in lieu of a 'B' on the extreme right hand end door.
15. When they are all in, solder them from the back. The long ones have a soldering hole in the centre. Not too much solder, otherwise you'll fill the groove around the vent on the face side.
16. Remove the end steps from the fret, clean up, fold, and fix from the inside through the slot and solder into place on the inside of the end of the carriage.
17. Bend the whole end around to 90°, check with a square, and when right, especially at the tumblehome, solder on the inside and at the bottom underfold to hold it there.
18. Now, that wasn't that hard was it? Then repeat all the above items for the other side and end.
19. Now the time comes to fix the two sides together. First check that the two opposite ends fit to the sides. The side fits on the outside of the end. Make sure it all fits, around the tumblehome etc. and solder together and at the bottom fold under.
20. The body as it is now is a little fragile, but to stiffen it up and hold it square, cut a piece of approx. 1mm thick aluminium (or say 50/60 thou. styrene or plywood) for a floor and fix in with Araldite. Make sure that the body is sitting true and in 'wind' whilst the Araldite is setting. Sit it all on a piece of newspaper as the Araldite tends to ooze out overnight. If you use brass, or similar, for a floor, you will still have to glue in something thick at the ends, as it has to be drilled and tapped later, when attaching the chassis.
21. After the Araldite has set, clean up the end corners where soldered up and clear the holes provided for the end hand rails. Also clean off any Araldite that has oozed out at the bottom. Try to keep the solder away from these end hand

21 (cont.)
rail holes when strengthening and soldering the corners. Use some thin wire, say around 10 thou. for the end handrails, bend up and solder into place, long one on the left hand side and the shorter one on the right hand side.

22. Put the finished body to one side and we can now get onto something else.

If you make the LCB model, with lavatorys, delete the door handles where required and fill the handle holes and hinge slots.

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Now for something a bit more complicated;

BOGIES

1. Remove the Inner Bogie Frame from the fret. Clean up only the tags that you cut to get it out of the main fret. Do NOT clean off the locating lug for the coil springs.
2. Use a 2mm drill to clear the bearing holes. Check the bearings that you are using and adjust the holes with a round file, and make sure that the bearings fit correctly from the INSIDE, ie. the side the fold lines are on and 'Railscale' etched in. Do not solder just yet.
3. With the point of the scriber, check and clear the holes for the wire support bracket for the footboards (Near the bearing hole). The other holes in the main frame were provided in case you wish to wire the inner and outer frames together, so that they may be taken apart later, but I found there may not be any need to do so.
4. Fold up the four sides of the bogie frame, spot solder the folds, solder the corners, then fix in and solder the bearings.
5. Now with a small pair of pliers, do the double fold up and get the locating lug for the transverse leaf springs out of the way (Fig. Bg1.)
6. Remove the equalising bars and solder them together in pairs to give them thickness. Then clean off all the tags and file up to make it look like one piece. Fit to face of the inner frame, sit it hard over the top of the bearings, line up the lug for the coil spring, with the lug in the bogie frame, and solder on.
   NOTE: If there are any very keen people out there, I think there is the possibility of having working equalising bars. You would have to make up your own bearings, know something about equalised bogies, cut the equalising bar over the centre bearing and fit in a suitable working coil spring. Think about it !
7. With a three cornered file, or whatever, file a 'Vee' lead in for the axles, on the bottom edge of the soldered in bearings. (Fig. Bg2.)

8. Remove the Outer Bogie Frame fret and clean up as for the inner frame fret. This time you will have to file and fit the bearing slots over the bearings already fixed in the inner fret.
9. Once you have checked that the outer frame clears the bearings, fold up and solder as before for the inner frame, only this time you will find that there are little lugs on the end of the side frame which have to be folded Out. (These are to carry the end headstock of the bogie, described later.)
10. If all has gone well, the outer frame should be a snug fit from the top, over the inner frame, equalising bars and bearings. Solder (or wire) into place, making sure you align the bogie pivot holes. I found to solder at both ends and sides of the centre section of the top of the bogie, and a spot both side of the pivot holes to be sufficient.
11. Take the 'Packer' piece from Fret 2, and solder on top of the bogie over the pivot hole. Open out this hole with a round file to suit an 8BA screw, or whatever screw/bolt you are going to use.
12. Carefully remove the bogie side overlays from the fret, punch the bolt heads from the holes marked behind the metal straps on the front face, fit to the bogie side (You may have to file a little bit off the ends)and solder. Make sure the overlay is flush with the top of the bogie. Tack solder at the edges, being careful not to fill the holes for the wire hangers for the footboards.
13. Take out one one the bogie ends clean up. (you have a spare). Clean up the bogie end, file etc. to make sure everything is square and true before fixing the end headstock. Take the end headstock that you have removed from the fret and fold, only this time fold it the OTHER way, with the fold line on the outside. Fold it right over on itself and solder, but do fill the slots for the brake hanger supports.
14. Take the bogie end overlay, punch through the boltheads as before, straighten, fold out the little brake hanger supports at right angles and solder the overlay to the folded end, on the flat side, leaving the slotted side clear on the back.
15. Now take the other part of the brake hanger support (Part G) bend at right angles on the fold and fit up under the folded out hanger support on the end overlay, with the upturned leg fitted into the slot on the rear face of the bogie end. (Fig. Bg3). Solder into place
16. File the back of this bogie end flush and solder to the end of the bogie itself, with the brake hanger supports to the bottom. Fill the outside ends with solder, so when filed and cleaned up, it looks like a single piece. Now you may curse me for this, but the little lugs on the brake hanger supports have to be cleaned up, so the the hanger on the brake blocks will fit onto them.
17. Lets go to the axle boxes. Take Part S, clear the holes to fit over the bearing and file the edges so that this part fits between the bolt heads etched in the bogie side overlay. Solder on with the wider part uppermost.-it should line up with the slot above the bearing. (If you've made working bearings, you will have to cut the bottom out of Part S, to let the bearing work up and down).
18. Then take out the axle boxes, fold up to shape (Fig. Bg4), and lightly solder on the inside. Clean up to shape with small files etc., file the back flat so that it sits onto Part S already soldered, and when it looks right, solder the axle box on.

19. Now is the time to fix the leaf springs. Take them out of the fret, bend a slight round in them and solder together at both ends, filling the joint, so when cleaned up, a round can be filed on the outer edge. (Fig. Bg5).
20. Turn the bogie upside down, push the completed leaf spring underneath the equalising bar and locate onto the tab that was folded up previously. Solder. If everything has gone well, when you take the spring planks and fold up the ends, they should just drop into the cross slots in the bottom of the leaf springs. Solder.
If required, bend the spring knuckles etc., to get them in line, all done by eye.
21. Now is a good time to wash and clean the bogie, be it in Deoxidine, metal conditioner or whatever, to get rid of the flux etc.
22. You will need to get some little coil springs, (hardware store) 2mm dia. I got some about 14mm long, pulled the tightly coiled ends out a bit, then cut them into 4 equal pieces. Compress slightly and fit the springs over the lugs provided on the equalising beams and the bogie frames.
23. At this stage I think it may be best to put in the wheels as you will find that the frames are starting to stiffen.
For HO the axles will need to be 0.920" (23.4mm)-check with the bearings you are using. Either shorten the axles from the wheelsets you have, or have a kind word with Joe at Casula Hobbies and you may be able to buy some of his 23.5mm x 2mm dia. axles. Check your wheelset to see if they have 2mm dia axles first.
For those in 4mm or O Gauge, you'll have to adjust your own axles.
24. Now comes a fiddly bit, the brake shoes.
Make sure the little holes in the top of the brake block frets are clear, as they have to fit over the little lugs cleaned up on the brake hangers, back in item 16. The brakes are built up in 3 pieces, ie. Outer face, Centre and Inner. You will note that they are right and left hand. Take the parts out of the fret, punch the bolt heads from the rear in Outer brake block where marked, hold all the pieces together as a sandwich, and solder. Clean up, drill through to clear the hole for the tie rod, to suit whatever wire you are going to use, say around 14/15 thou., 0.35mm or whatever. Clip the finished brake blocks onto the hanger and solder into position, clear of the wheels (Fig. Bg6). After soldering, bend and adjust to make sure you do not get any short circuits and solder in the spreader wire, through the holes in the brake shoes. Just leave a little bit projecting both sides.
25. Bend up the axle box keepers (Fig. Bg7), out of a piece of wire approx. 18/20 thou. - 0.5mm, and solder in place under the bearings, between the frames.
26. Take out the bogie footboards and fold up, noting that the main fold is back over on itself (Fig. Bg8) and the smaller section on the end turns up at right angles. Solder but do not fill the slots in the bottom. Clean off tags, solder etc., and make a trial fit against the bogie sides, you may have to file to fit, the checkouts to clear the projecting axle boxes.

27. With a piece of approx. 14 thou. - 0.35mm wire, bend up six (6) footboard hangers, using the template provided in the fret. (Under the C ventilators). Also check that this wire fits in the holes in the bogie side under the vertical strap on the side overlay. -On the left hand side of the left hand and centre axle boxes and the right hand side of the right hand axle box, and clear out as necessary.
Solder these wire hangers to the underside of the footboard into the locating slot provided. Then cut off a little bit of the top wire where it goes into the locating holes (so that it does not foul the wheels), then fit the whole lot into the bogie side. You may also have to adjust again where the checkouts in the footboard fit over the axle boxes. When satisfied that all is correct, solder into place, clean up and put to one side.
28. Cheer up, you should have one of the finest model bogies that you've ever seen. Have a rest to get over it because you then have to make the other one.
Repeat steps 1 to 27 inclusive.

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CHASSIS Fret 2.

1. Remove the main chassis from the fret being careful not to damage the top footboard lugs (Both sides near the bogie pivot hole), and fold down the sides. Tack solder the fold.
2. Take out the bolsters and the bolster spacers, bend at right angles at the fold lines and solder the folds.
3. Turn chassis, underside up. Position the hole in the bolster over the hole in the chassis and tack solder. Fix in the bolster spacers and solder to the turned down sides of the chassis, underside of the chassis floor and bolster. (Fig.C1). Clean up at the cutouts for the wheels
NOTE: Positions have been marked on the underside if you wish to complete the underframe. Glue in scale timber, styrene or whatever, only after you have finished the truss rods etc.
4. Cut some thick styrene, or build up in pieces, 7mm wide and fit in under the bolster and glue in with Araldite. Let it stand overnight. - this will later be drilled and tapped to provide fixing for the bogie fixing screw/bolt.
5. While that is setting, let's get onto the headstock/buffer beams. These are Parts J, K and L (Fret 1), remove from fret and clean off tags. (Now refer to Fig. C2.)
   a. Take J and fold at 90°. (What looks like I is a centring mark).
   b. Take K and fold at 90° on the long fold line only at this stage.
   c. Fit J under K, line up the centring marks and solder. Clean out any solder in the small rebate left at the bottom of the now soldered J&K.

5. (cont.)
   d. Fold L at 90°, fit to underside of J/K and solder. Now fold over the ends of K, hammer into place to get it nice and square and solder, being carefull not to fill the slot on the left hand end for the step.
   e. Clean up nice and square, put aside, and make up the other one.
   NOTE; With this type of buffer beam/headstock, it can be soldered to and form part of the chassis quite easily, but later.
6. Take the plate M, clean off the tags, then take 2 off fixing eyes, Part N, for the safety chains, push N through the holes in M, and the corresponding holes in the buffer beam and solder at the back. Then come back to the front and touch solder the plate and eyes. Do the other one and put aside.
7. Fix the Buffer beam / Headstock step into the slot in the top of the left hand end of the buffer beam / headstock and solder. You may have to cut a little bit off the back of the step to make it fit, depending on how much solder is in the slot. Then either solder or glue the small bracket piece under the step, that's the curved check piece, the curve being to clear the buffer body.

If you've let the main chassis dry overnight, now is the time to get back to it.

8. Very carefully remove a chassis overlay from the fret. It is very delicate and I suggest to clean off the tags AFTER it has been soldered to the chassis side. It may be a bit too fine as you may loose some of the footboard tags (I did) but don't worry, these can be replaced with pieces of wire later.
9. Carefully punch the bolt heads marked on the rear side and solder or glue to the main chassis side. Be careful to line it up properly, using the holes in the horse shunting rings as a guide. Bend out any remaining footboard tags (They are very fragile) at 90° and solder from the underside.
   Then fix the other overlay to the other side.
   You will find that I've missed the location markers for the bolt heads on the left hand end of one overlay, punch them anyway, Sorry about that.
   The overlays are awkward, you could try tacking with super glue gel, then follow up with solder, anyway, solder the tag folds for the footboard supports, from underneath. Be careful not to fill the vertical markers for the centre lower footboard supports or the holes for the truss rod hangers.
10. Then with a piece of say 14thou. wire, bend to a 'U' shape and push into the two holes (near the bogie centre) for the small shunting ring. The wire should form a semi-circle ring on the outside between the two fixing plates. Solder from the inside and cut off the surplus wire.
11. Clean up the whole chassis so far, file off the tags that held the overlays in the main fret, and surplus solder etc.
12. Take the buffer beam / headstocks previously soldered up and fit to the end of the chassis. Centre them up and solder, on the underside.
13. Take the long top footboards, bend them back over on themselves and solder at the free edge. Clean up and file off all tags and solder.

14. Place the footboard upside down on a small strip of timber, place the upside down chassis onto it with the footboard tags resting in the checkouts provided. Equalize the foot board between the buffer beam /headstocks, and solder into position, keeping it just away a little bit from the chassis overlay, Where any tags have fallen off along the way, replace and solder on a small piece of wire. Once they're all on, the top footboard becomes quite solid.
Then do the other one.
15. Drill and tap 8BA (or whatever other small bolt you wish) through the bogie pivot in the chassis.
16. Fit the chassis to the underside of the body, lining it all up and mark the centres of the two body holes at each end and the bogie pivot, on the underside of the body floor.
17. Drill and tap 10BA (or whatever other small bolt you wish) for the body fixing bolts, and a good clearance hole for the bogie pivot bolt. Fix the chassis to the body.
18. Now fix the bogies and level up the body etc. Take the large washer with the large hole, from the fret, and solder either to the bogie or the chassis bolster. You may need another washer or a piece of styrene for packing, depends on the wheels you have used, but make the top of the chassis 4'0" above the rail head.
19. Push the model along a piece of track to see that it runs freely, especially around the curves. It should get around 2'0" radius curves, but if the wheels (because they are 3'6") touch the chassis, the overlay can be bent out slightly, where the round clearance holes have been made in the main chassis side. If any problems, you may have to fix a little piece of insulation to prevent any short circuits.
Measure how far below the top footboards are the bottom of the bogie footboards, and write it down.
When satisfied, remove the body and the bogies.
20. On the inside of the chassis side turndown, you will find 4 vertical slots both sides. These are for the lowere foot board hangers, - clear them out, of solder, flux etc.
Cut 8 pieces of approx. 18thou. wire, about 4'0" (scale) long and solder into the slots. Check they are all plumb, then bend over and outwards on the same line as the underside of the bogie foot boards that you measured previously. Take the 'Centre Lower Footboards' from the fret, fold the bottom over on itself as before, and the small top section folds up at 90° as before. Solder the back edge. Clean up, file off all solder and tags etc., and round the bottom of the back edge so that it fits neatly into the right angle corner of the wire hangers that you've just folded out
21. Put the bogies back on and place the chassis and bogies on a piece of track. Sit the Centre Footboard on the folded out wire bracket, - it should almost line horizontally with the bogie footboards,(does'nt matter if not - so photo), position the footboard centrally between the bogie footboards, then tack solder. Turn the whole lot upside down and finish off the soldering properly. Snip off any projecting wire and file up and away from the front edge.
It's looking nice now isn't it ?
22. Now we can fit the truss rods. Again turn the chassis upside and locate and clean out the 4 locating holes in the corner of the folded down chassis side and floor. Using the same wire as for the footboard hangers, solder in the vertical posts into these holes and to the top of the chassis floor. Snip them off to length, so that when the main horizontal

22. (cont.)
rod is in, it is just above the lower footboard,- you'll see what I mean by the photo. Bend up the outside rod with the sloping ends. You will find a sloping locating mark just before the wheel clearance check outs in the turned down chassis side. This is where it goes. Solder in. You will find that these rods pass directly behind the footboard hangers, which can be used to help hold this rod in whilst soldering it in. You could put on a little bit of solder onto the hangers to help support it, but only a little.

23. The photo shows a brace at about 45° going from the bottom of the vertical truss rod support, back to the underside of the floor. If you are going to finish off the underfloor framing, now is the time to do it, because the brace would have to be attached to it, but if not, put the brace in now. Any framing that does go in, say about 8" x 4" timber, styrene etc., would look good and also provide support for any tanks and other floor fittings (I do not know) that may be required. See item 28.

24. Take Part T from the fret, cut off the little wings (That was my attempt to provide springing for the buffer, but it didn't work), fold up and attach under the chassis, in the position marked on the end of the carriage. (Fig. C3) Please do not spoil this model by fitting 'Kadees'. If you do, I do not want to know and you are on your own from here.

25. Fold the coupling hook back on itself and solder in a short length of 20/22 thou. (.52/.55mm) wire. (Fig. C4.). File up and shape the hook. It and the wire should fit through the end plate on the buffer beam / headstock, with the wire passing through the hole in T. Fit a small coil spring over the end of the wire behind T, retain with one of the small washers provided in the fret (you may have to file a small flat on one side to clear the floor), and solder onto the end of the wire. (Fig. C5).

26. If you are carrying through with the buffers, (Alternatively you may use some of the other model type proprietory lines) turn up and fix the buffer bodies. (Fig. C6) Fix to beam. Take a single thickness of buffer head (I originally allowed for 2, but found 1 to be sufficient) and solder a piece of abou t 27 thou. (0.7mm) wire to it, leaving a concave blob of solder behind the head. (Fig. C7) Cut off the shanks to about 5'0". Clean up 4 off the washers, on the fret near the lower footboards, and clear the hole to suit the wire used in the buffer. Push the buffer through the body and feed the washer onto the shank. Push the buffer right through, hard onto the body and solder the washer to the shank about 8" away from the back of the body. (Fig.C8). When pushed forward, the overall length of the buffer face from the face of the buffer beam/ headstock would now be about 1'9".

27. The wings on piece T didn't work the way I wanted them to, so simply get a small piece of nickel silver, phospher bronze or other springy wire, bend to fit between the chassis floor and the draw hook rod, and sit it on the buffer rods, hard up against the upturned face of T. Pull the buffers all the way out and solder the ends of this piece of wire to the buffer shanks. (Fig. C9).

28. I do not know what the underframe detail was or where, if any the brake handles go. Help ! is there anyone out there who can help me ? The 4mm book shows some brake gear and an air tank, and our photo shows a gas cylinder ?. I've drawn what I think it might have been, if you wish to add it to your model.

ROOF

1. Carefully remove the clerestory roof and the main roof from the fret. Retain the ties across the main roof as these keep the roof parallel and stop it from spreading. You will note that this time, the tags holding these pieces in the fret, are on the face side, as the underside has a slight undercut all round the edge to simulate the roof edge mould that you see in the photograph. When cleaning up where the tags were, file just enough to remove any sharp edges.
2. The roof now needs to be shaped. It appears ther are many way to form the curve. I found one way was to get a piece of plastic drainage pipe and a piece of large dowel or broom handle and roll and hammer it into shape. (Fig. R1). Use the end of the body for a guide, so that you get the correct roof shape.
3. Remove the main roof edging and clean up as before, as this also has the slight undercut. Fit it to the underside of the main roof, in from the edge about 1½", centre it from both ends and solder. The end edging will have to be bent to follow the roof curve, and soldered on about 3" in from the end. If the corners do not meet, fill the joint with solder, then clean off. (Fig. R2.)
4. Clean all the tags off from the inside section of the lower roof, then we can proceed to fit the clerestory. Take the clerestory side out of the fret, leave the top part of the fret on for now, as it helps in the handling of this long narrow piece. Fold up the bottom as noted. I forgot to make allowance for the thickness of the metal for the lower roof ties, so you will have to file a little bit out of the bottom of the clerestory sides, between these folded bottom pieces, so that the bottom pieces fit under the lower roof. Trial fit and make sure the sides stand close to upright. (Fig. R3).
5. Find the fret with the remaining ventilators, and fit and solder them in as before for the sides.
6. Fold the end of the clerestory around at 90°, then fit and tack solder the clerestory side to the roof, soldering from the underside. Do the other one and fix in, the side over laps the end. Cut off the top piece of the fret, leaving the locating tabs for the roof intact. With your eye, or a straight edge, bend and straighten up the sides, making sure that the join between the sides and ends are right, then solder it all up properly.
7. Clean off all the tags from the back of the ventilators and any other cleaning up, while you can still run a file through before fixing the roof section. Do any final rounding off on the ventilators now, as it will be awkward once the roof is fixed.
8. Do a final check of the straightness of the clerestory sides and put on the roof. It should drop into place over the locating tabs. Solder from the top to fill the holes at the tabs, then if you wish, solder from underneath. Do not fill the little holes for the little hand rails at the ends.
9. Clean off all solder and flux etc., file up where over soldered (any slight holes can be filled when painting), polish up etc., and sand sharp edges etc.

10. Look at a photo and fix the little handrail on top of the clerestory roof at the ends, using the locating holes provided. Solder at the top, then turn over and solder to the inside of the ends.
11. Clean up the roof lamps and round off the bottoms. (Or if you wish, turn up your own the suit the holes provided). If you are building the early Ashbury, drill through the centre lamp hole marked on the underside of the roof. If you are building the lavatory version, leave the centre hole mark as is and drill through the offset holes over the lavatory compartments.
12. Open out the holes with drills and files etc., to suit your lamps. Fit the lamps and glue from the underside with Super glue, running the glue all around the lamp.

ooOOOoo

FINISH OFF

1. You should now have all the main components, ie. Roof, Body, Chassis and two Bogies, so it is now ready to paint. The model has been designed this way to make it easy to paint, the only masking required will be on the roof between the clerestory sides and the roof itself.
2. Now paint your model. I have no idea what the clours were, but in 'Passenger Cars of the N.S.W.R.' it would appear that these early carriages may have been a deep red ? It could be that the Ashburys may have been similar to the Midland Railway Red ? Crimson Lake ? I would assume the the lavatory versions would have been in Tuscan Red and lined. If anyone out there can help, please let me know.
   I'm going to paint mine Crimson Lake sides with a White roof. The underframe and bogies will be 50/50 Floquil Engine Black and Grimy Black.
3. Fix in the glazing. I use K & S 10 thou. 'Butyrate', which looks a lot better that clear plastic. Fix it in with little dobs of clear silicone. If there is any over spill with the silicone it can be cut with a sharp craft knife after it has set, and peeled off with tweezers. Glue cannot.
4. If you wish, now make up and fix all the internal partitions and seats, including the little piece of partition between the sides of the clerestory roof upstands.
5. Then fix the roof on with a few dabs of silicone as before. Any overspill can be cleaned off with a knife and tweezers as before.
6. Bolt the chassis to the bottom of the body, then bolt the bogies to the chassis, using a drop of 'Locktite'
7. If you wish, take out the bits of the screw coupling from the fret, solder up the two thicknesses of the centre section together with small pin like part under parts P and Q in the fret. Refer to the sketch. Clean up and round off the pins where the end loops fit. Clear out the holes in the ends of Part P and Q, to fit over the pins, then bend them around to form the loop and fit over the pins, Part P to one end, Part Q to the other.

8. Poke the scriber into the little hole in the top of the rear part of the coupling hook. Round off the end of the long loop of the coupler so that it will fit through the slot into the hole in the hook and pivot in the hole. Fit the coupler in, then poke the scriber into the main hook to close the slot back over the coupling to lock it in. Paint the coupling if desired.
9. Get hold of some scale chain and fix the safety chain hooks and chain to the eyelets on both sides of the main coupling hook. Paint the hooks.

You should now have one of the nicest models that you have ever made.
I do not have any decals yet, for the 'First' and 'Second' and numbers, but I'm working on it. Do you realise that the decal sheet will have to have 72 numbers, plus spares and codings etc. to cover all the possibilities ?

I would like to thank many people in assisting me with this model including Mr. Phil Atkins from the N.R.M., Mr. Kevin Pippen for assistance with the bogies and lastly Mr. Neil Cram, who some time ago said "Wouldn't it be nice to have an Ashbury or two !"

Eddie Garde.

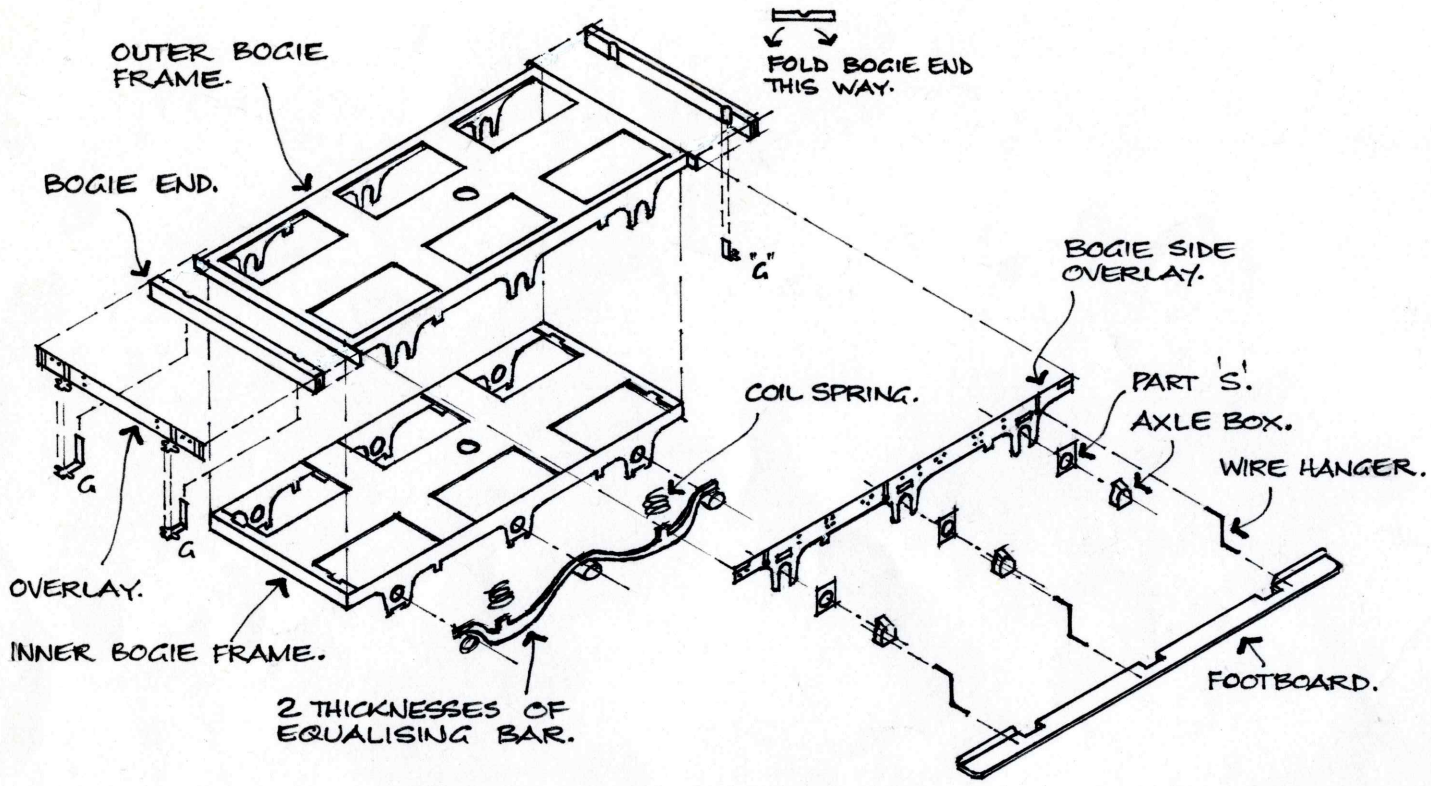
Other models in the pipeline —
First and Second class 8 wheel mountain radials with working suspension.
The early Commissioner's Cars, CK and FK.

DIDN'T GET ROUND TO →

* I'VE DONE THE (SO CALLED) CLEMINSON CARS WITH WORKING UNDERFRAMES, (WHICH WORK VERY WELL)

I DON'T CALL THEM CLEMINSON CARS BECAUSE THE ONLY CLEMINSON BIT WAS THE UNDERFRAMES! THE BODIES WERE HUDSONS? — OR CLYDE?

Eddie



BOGIE DETAILS
N.S.W.R. 'ASHBURY' CARRIAGE

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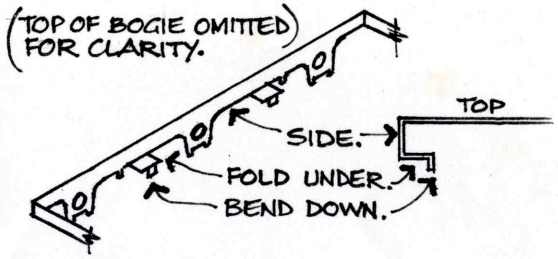


FIG. Bg1.

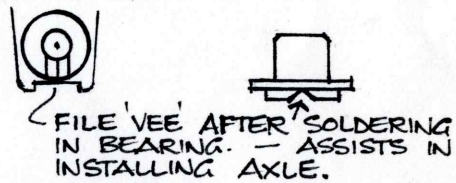


FIG. Bg2.

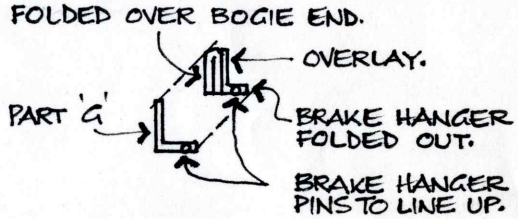


FIG. Bg3.

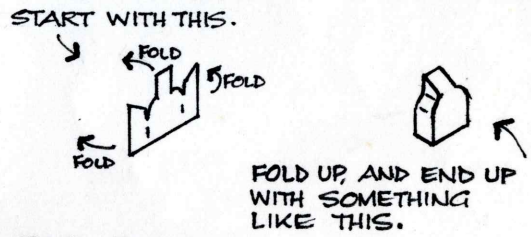


FIG. Bg4.

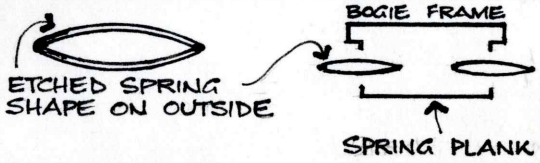


FIG. Bg5.

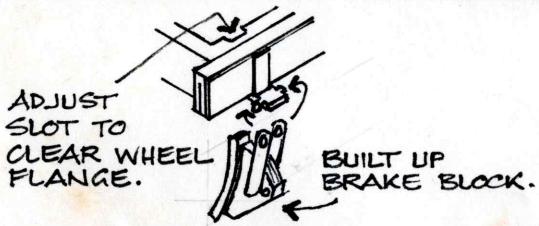
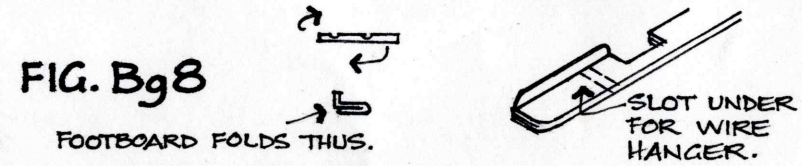
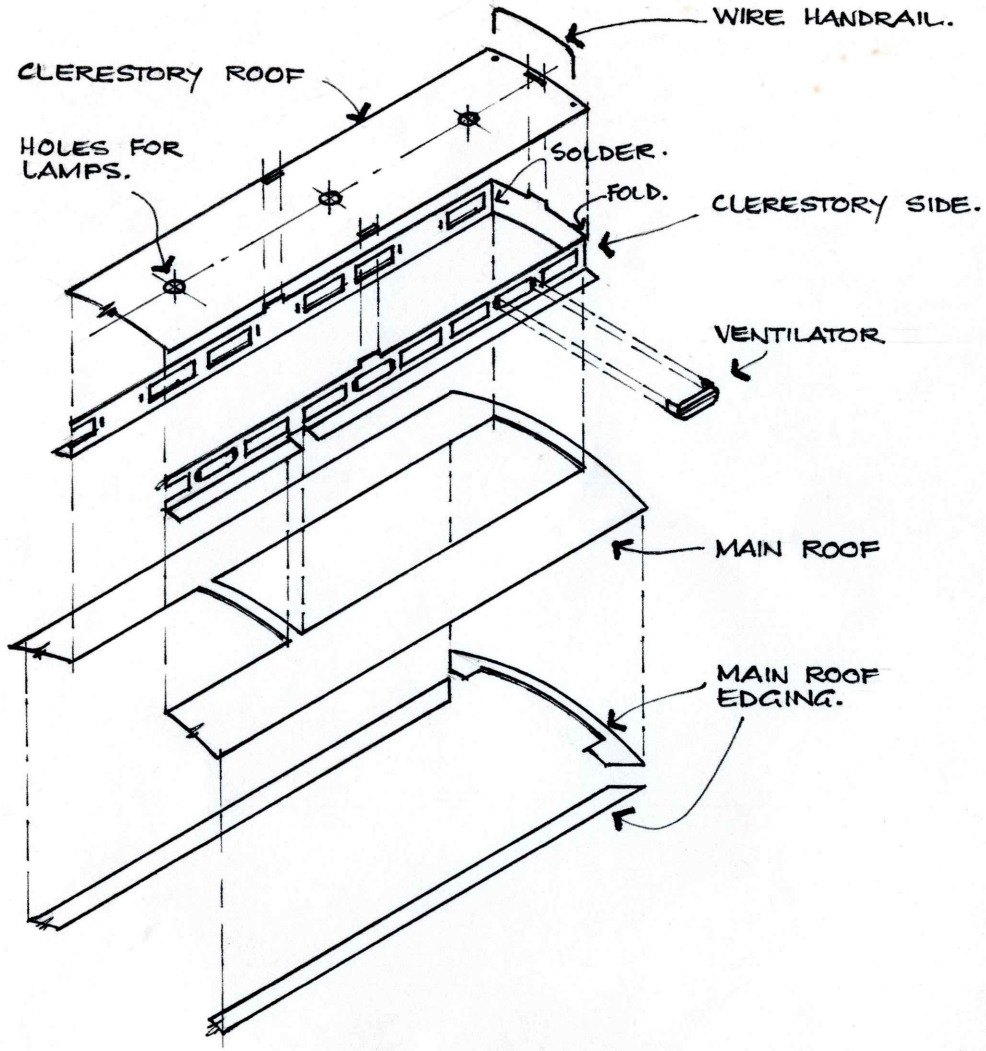


FIG. Bg6.

FIG. Bg7.

FIG. Bg8





ROOF DETAILS
N.S.W.R. 'ASHBURY' CARRIAGE

P.O. BOX 111, BLAXLAND NSW 2774.

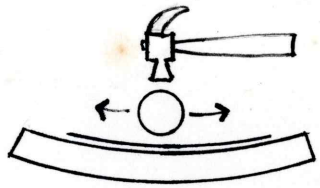


FIG. R1.

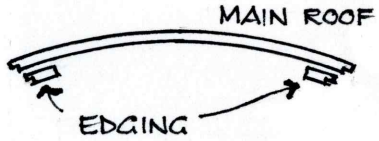


FIG. R2.

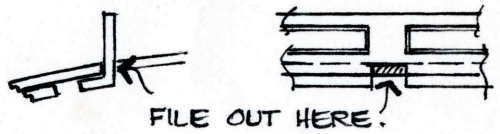
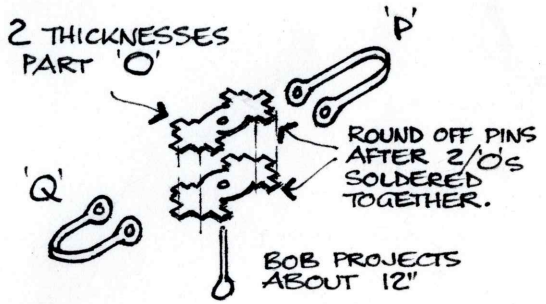


FIG. R3.



COUPLER.

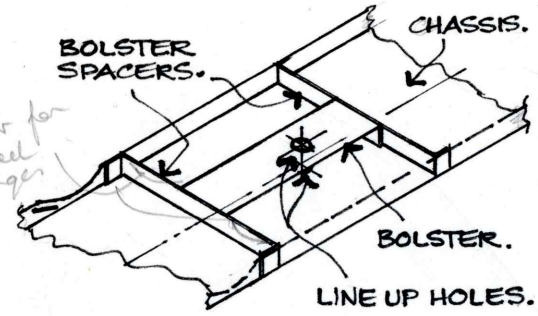


FIG. C1.

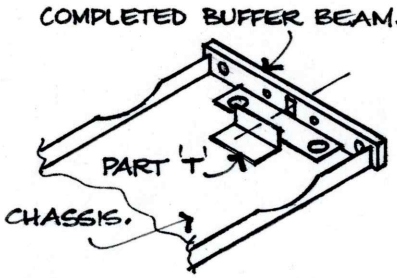


FIG. C3.

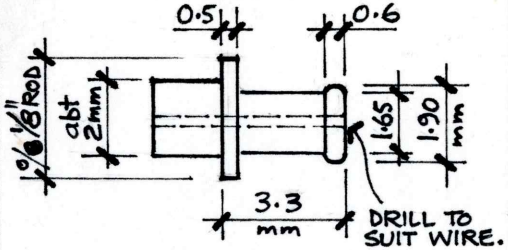


FIG. C6.

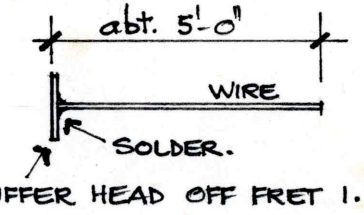


FIG. C7.

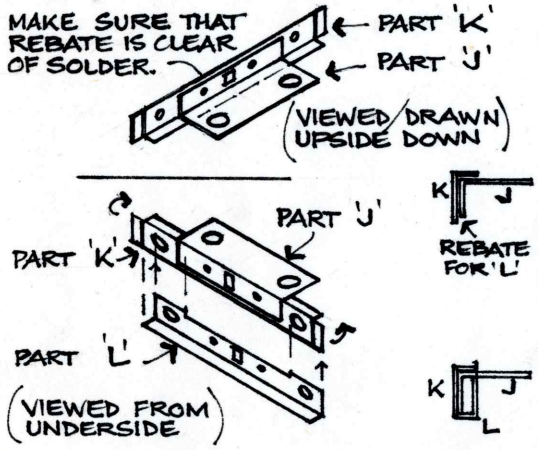


FIG. C2.

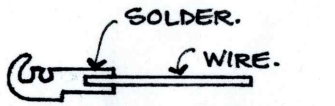


FIG. C4.

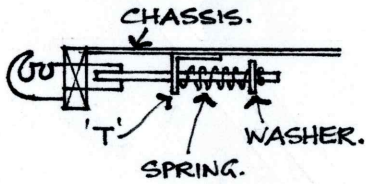


FIG. C5.

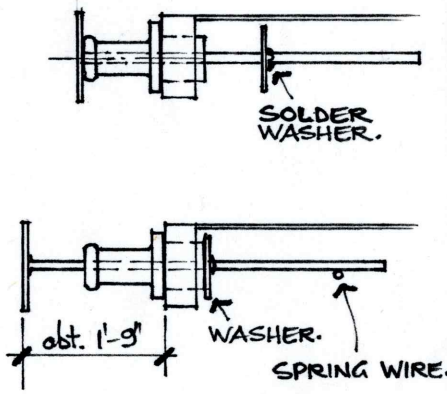


FIG. C8.

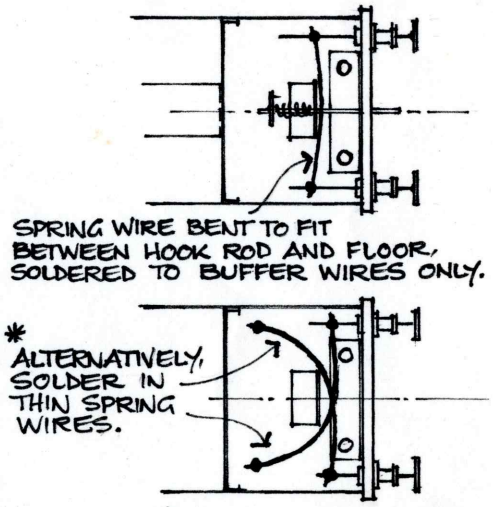
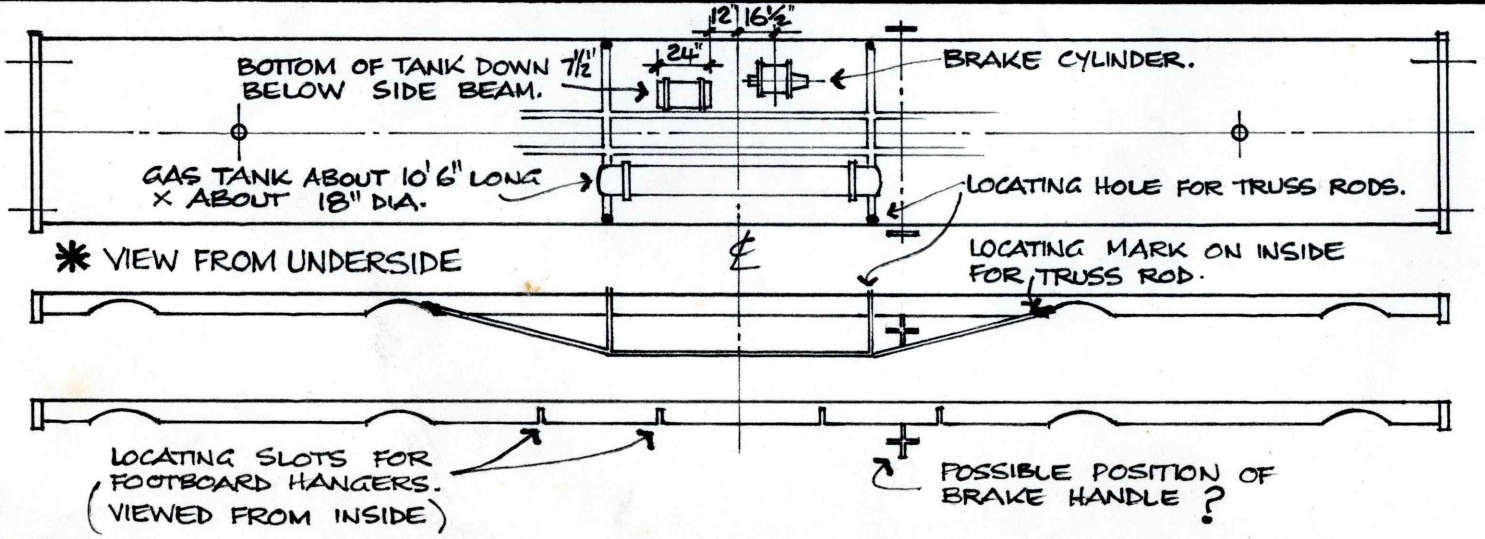
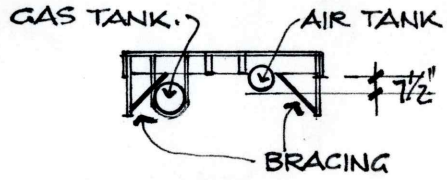


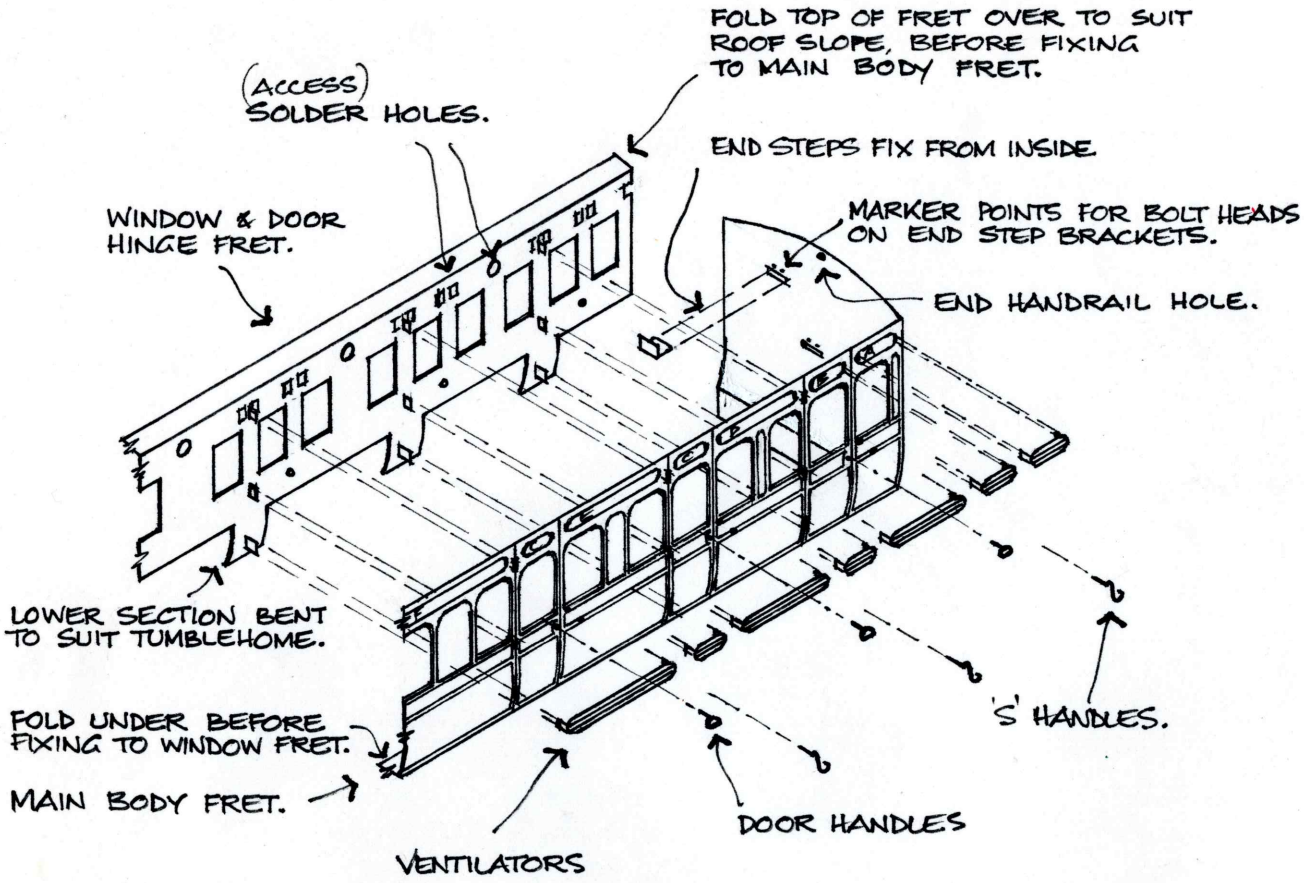
FIG. C9.





CHASSIS DETAILS
N.S.W.R. 'ASHBURY' CARRIAGE

P.O. BOX 111
BLAXLAND. N.S.W. 2774.



BODY DETAILS
N.S.W.R. 'ASHBURY' CARRIAGE

Railscale © 1991.
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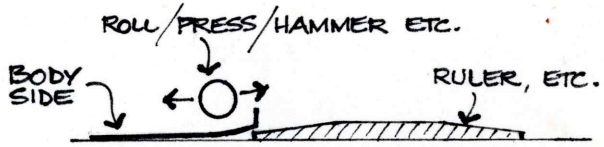
BLAXLAND. N.S.W. 2774.



OR REFER TO ARTICLE IN "MODEL RAILWAY JOURNAL" Nº 48

FIG. Bd 1.

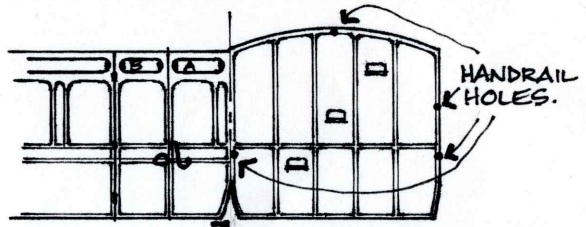


FIG. Bd 2.

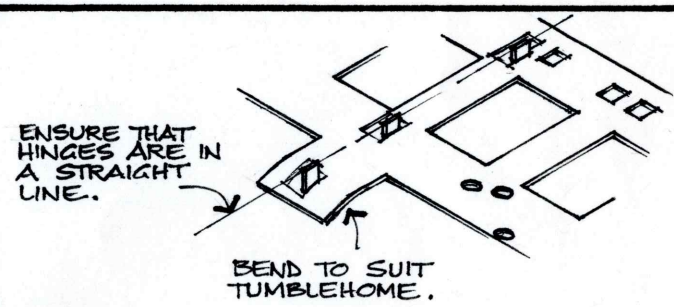


FIG. Bd 3.

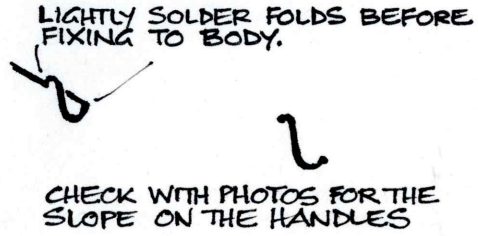
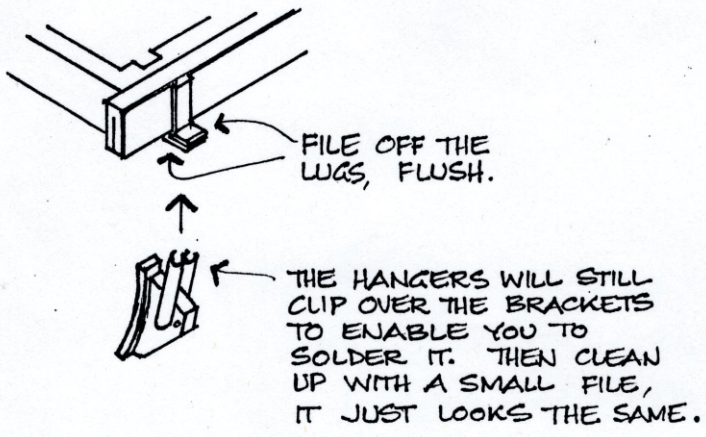


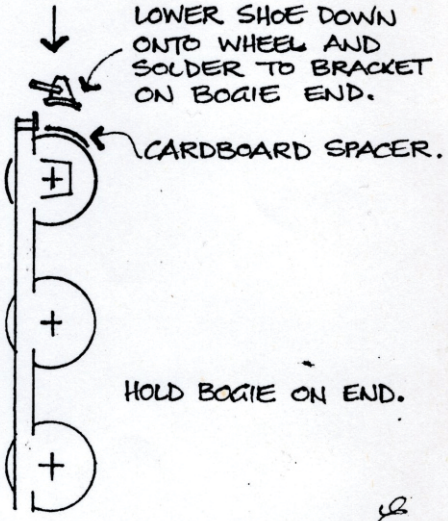
FIG. Bd 4.

NSWR 'ASHBURY' CARRIAGE – AMENDMENT No. 1.

FIXING OF BRAKE HANGERS & SHOES. REF. BOGIE ITEM 16 & 24, AND FIG. Bg 6.

IT IS AWKWARD FIXING THESE ITEMS THE WAY THEY ARE DESCRIBED. WHILST BUILDING THE LCB FOR NEIL CRAM, I FOUND THAT THE FRET FOR THE BRAKE SHOE WAS OVERETCHED & THUS LOST THE TOP OF THE HOLE. (YOURS MAY BE LIKE IT ALSO) SO, ANOTHER WAY HAD TO BE FOUND TO OVERCOME THE PROBLEM, SO —





E.