

## **Rumney Models - Shock Absorbing Wagon Spring Brackets & Covers**

This etch is designed to produce a detailed representation of the distinctive shock absorbing gear fitted to vans and opens with standard 17'6" x 10' chassis for LMS, GWR, LNER and BR types. The SR version, which was slightly different, is not covered.

They are designed to fit a solebar with an inside dimension of 2.5mm and use 8BA bolt thread to represent the rubber shock absorbing spring. They could be glued in place to plastic solebars but the recommended approach is to solder them to the appropriate Rumney Models chassis which are listed below:

- B.01 10' BR clasp brake
- B.11 10' Morton brake – BR Axleguards
- B.12 10' Morton brake – RCH Axleguards
- B.51 10' LMS claps brake – BR Axleguards
- B.52 10' LMS claps brake – BR Axleguards
- B.53 10' Derby clasp brake
- B.61 10' LNER clasp brake – BR Axleguards (forthcoming release)

Read through the instructions first and familiarise yourself with the components. Drawings and photographs taken during the construction of the test etches are included to attempt to make my waffle clearer. Note that not all the photo are from clasp brake chassis but illustrate the item in question.

All fold lines are through 90° with the fold line on the inside unless stated otherwise.

Everyone has their own soldering methods. I now use a temperature controlled soldering iron with predominantly 145° solder and La-Co paste flux. For a long time I used an Antex 18W soldering iron on virtually everything with few problems.

### **Prototype notes/General Arrangement**

In the 1930s the LMS began developing a type of wagon for the transportation of fragile goods. These involved fixing the body to the chassis via rubber springs which would act as shock absorbers and protect the goods from damage during transit. The GWR quickly followed suit and the SR at a later date. As far as I am aware the LNER did not produce any themselves but they did have designs prepared by 1948 which were built by BR, admittedly in small numbers, after Nationalisation. BR continued to build shock absorbing wagons based on standard van and open designs throughout the fifties. There were more specialist types built in the 1960s but these are beyond the scope of these etches which are designed for standard 17'6" x 10' chassis types with 9" solebars. The SR type was slightly different to the others and is also beyond the scope of these etches.

Initially the shock absorbing gear was fitted without protection. Sometime after Nationalisation it was decided that covers should be fitted to protect the rubber spring from damage. There were basically two types: Early single piece covers which seemed to be fitted to just GWR stock and angled covers fitted to everything else. I am unsure exactly when the covers began to appear but certainly BR was still putting into service wagons without them in 1951.

You have the option to build the shock absorbing gear either without covers, with early type covers (basically GWR types) or angled covers (everything else). You must decide which before you start and use the appropriate components. See Fig.1 on page 4.

### **Notes on model bodies**

Kits for BR shock absorbing van bodies are available from Parkside Dundas (planked) and Red Panda (plywood). Bachmann produce an RTR body for the planked version. Bachmann also produce an RTR body for the GWR planked shock absorbing van. All are good.

There is a kit available from Parkside Dundas for the steel ended open body and RTR version is available from Bachmann. There are issues with both of them. The Parkside body is the correct length but the door is about 2mm to wide. The Bachmann model is 2mm to long and also has doors which are 2mm to long. Currently I am removing 2mm from the centre of the Bachmann body to produce something with the correct proportions.

Other types could be produced using kits or RTR bodies of non shock absorbing types as a basis with suitable modification. Shock absorbing vans and opens were generally just reduced length versions of standard wagon types.

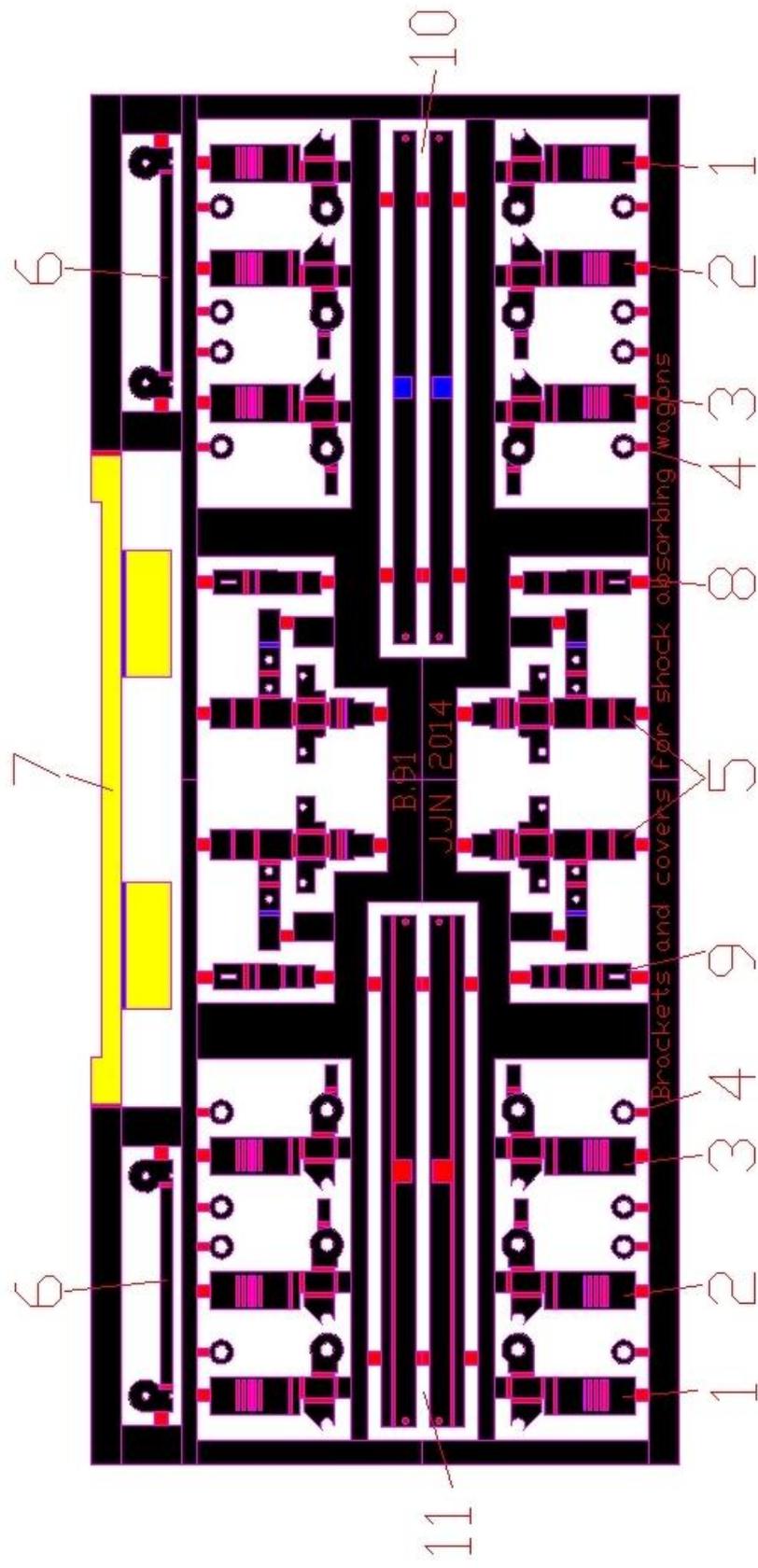
### **Materials needed**

0.9 mm wire  
0.45mm wire  
8BA bolt thread (cut from 1" bolts or studding is best)

All these bits can be obtained from Eileen's Emporium. Contact details can be found at the end of the instructions.

### **Parts list**

1 – Outer spring brackets (no cover)	7 – Bracket position setting jig
2 – Outer spring brackets (early cover)	8 – Early type cover bracket
3 – Outer spring brackets (angled cover)	9 – Angled cover bracket
4 – Washers for outer spring brackets	10 – Early type cover
5 – Inner spring brackets	11 – Angled cover
6 – Central spring brackets	



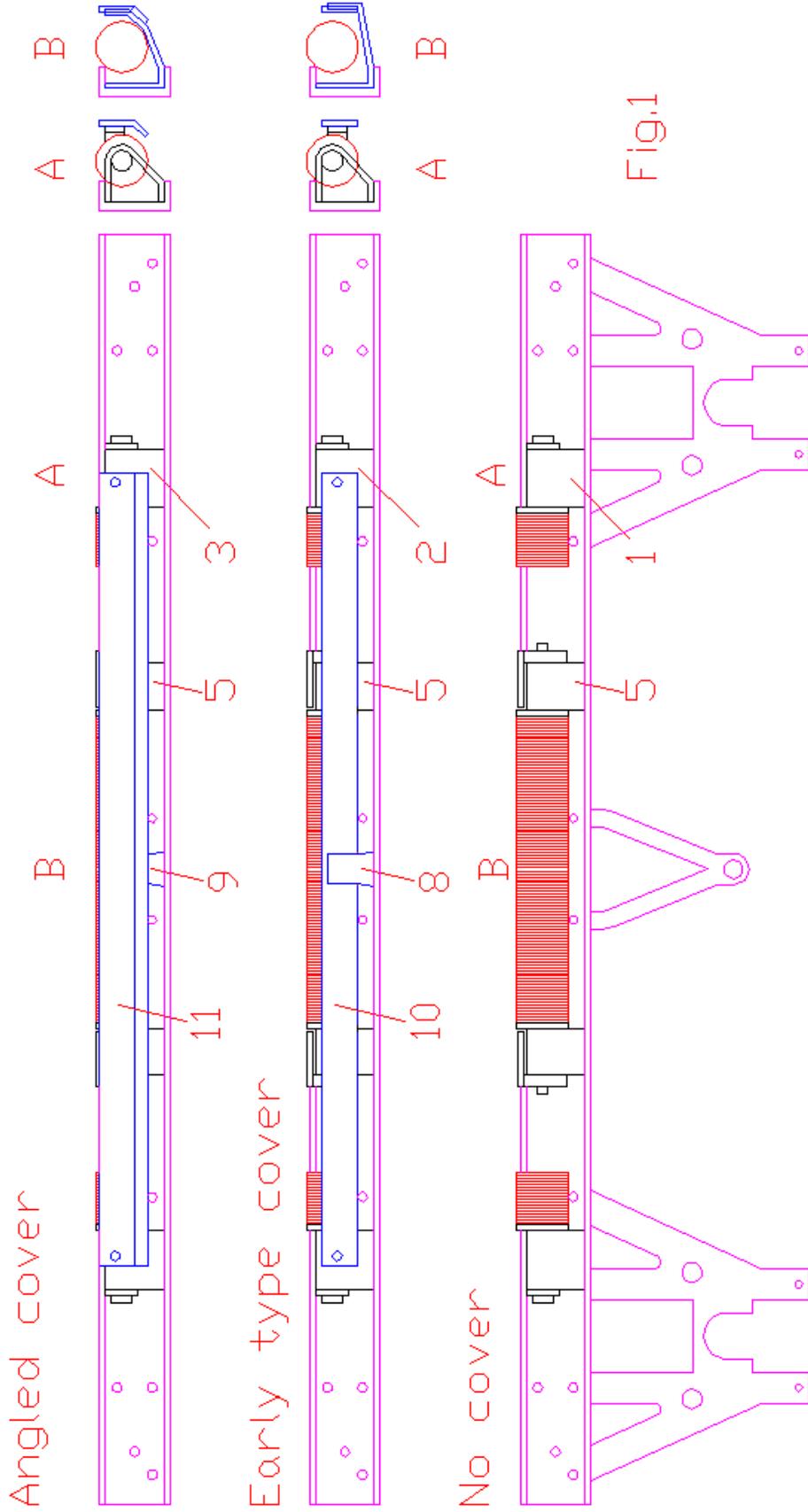
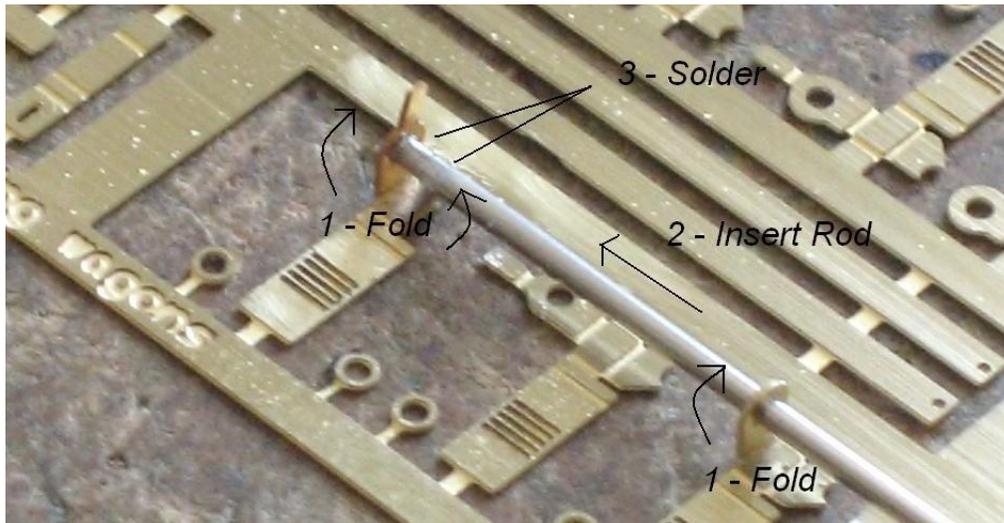


Fig.1

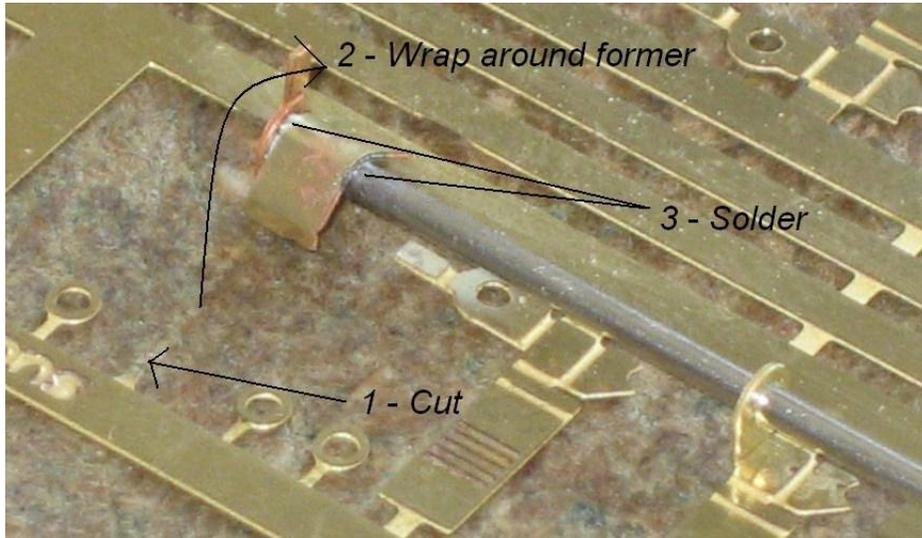
## Outer Spring Brackets

The brackets consist of two sides to which a length of 0.9mm rod is soldered. The cover is then wrapped around the former and soldered in place. You will need to use one of the sides from a spare bracket to help keep the wire rod in the correct place.

Choose which outer brackets you require depending on how you wish to model the shock absorbing gear (1 for no cover, 2 for early GWR type covers and 3 for angled covers). Open out the holes in the side and the side on one of the other spare brackets to take 0.9mm wire. Fold up the sides on your chosen bracket and the spare bracket. Locate the rod in place as shown below and solder in place.



Cut the connecting tab at the point shown below and then wrap the flat part of the bracket around the former and rod. This should be done as tightly as possible. Solder to the side, rod and back. Once all soldered up remove the bracket by wiggling it backwards and forward until the thin half etched connecting tab breaks. Trim the rod so that it is flush with the side that has the hole in.

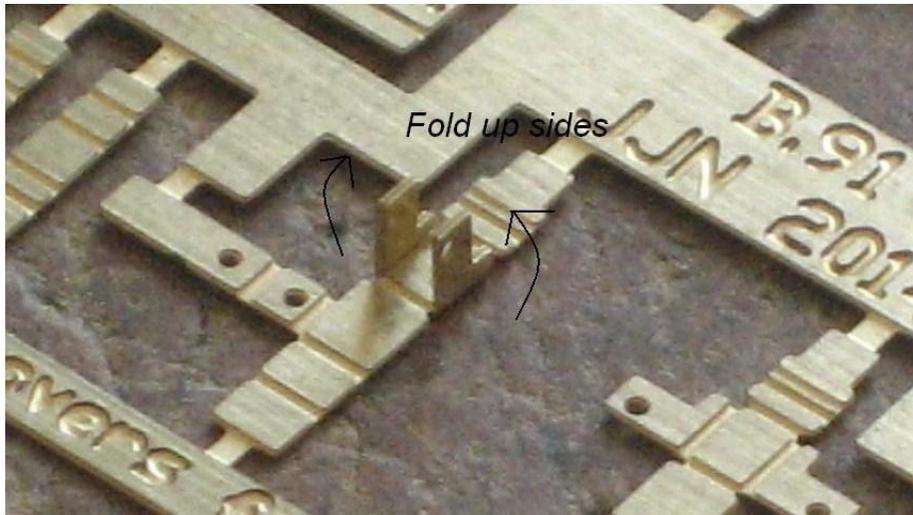


Finally open out a washer (4) and thread onto the rod as shown below and solder in place. Trim the rod so that it projects approximately 1mm from the washer. Repeat for the other three outer brackets. Note that the etch is mirrored about the two centre axis.

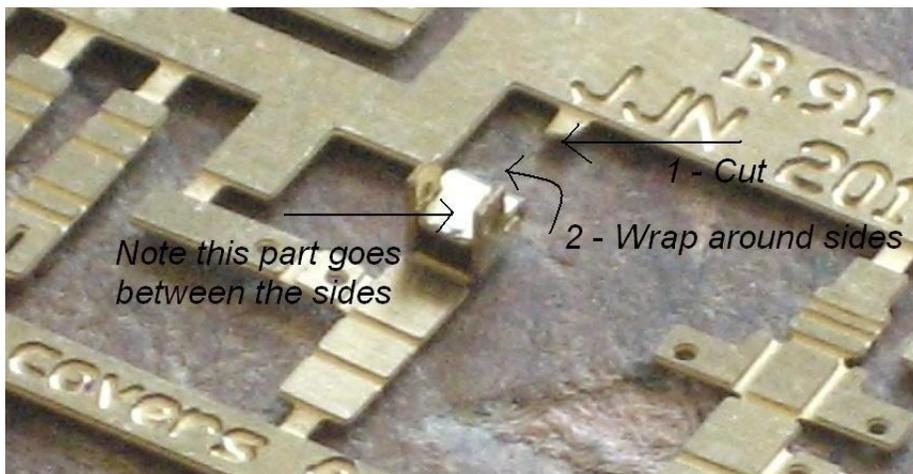


## Inner Spring Brackets

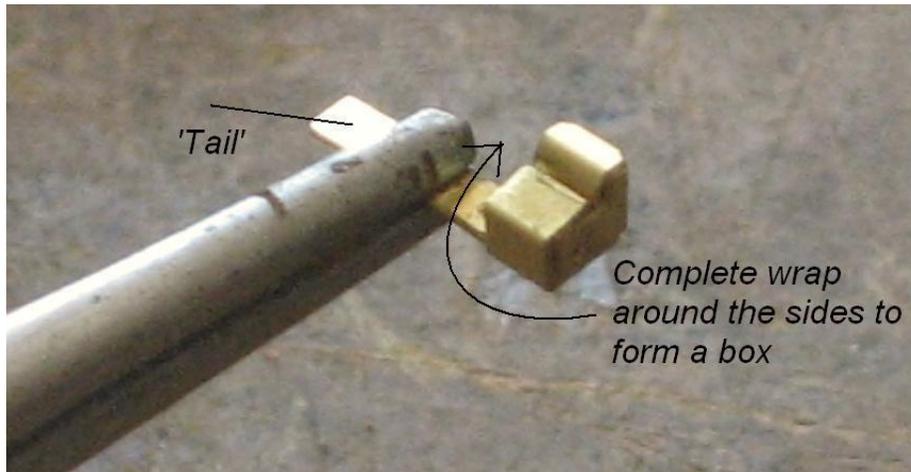
The inner brackets (5) are the same however you are modelling the shock absorbing gear. Open the holes out to take 0.45mm wire. Whilst still attached to the fret fold up the sides.



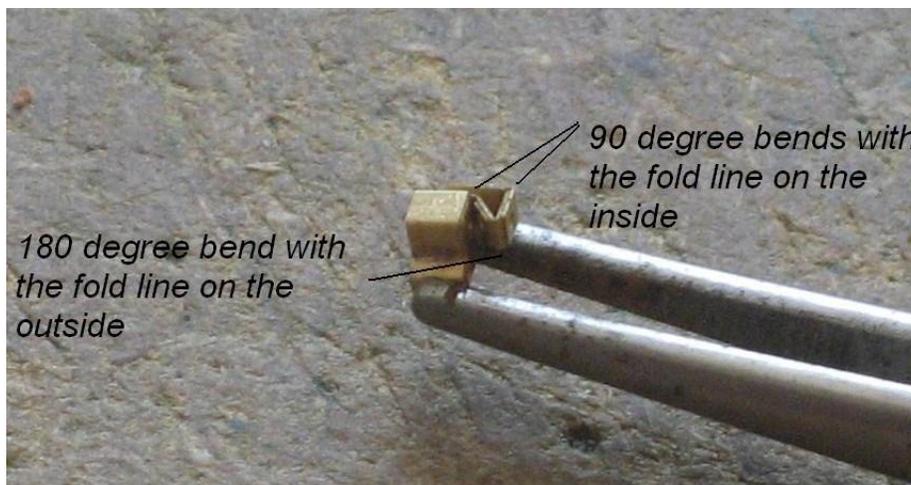
Cut the connecting tab and wrap the flat part of the etch around the sides as shown below.



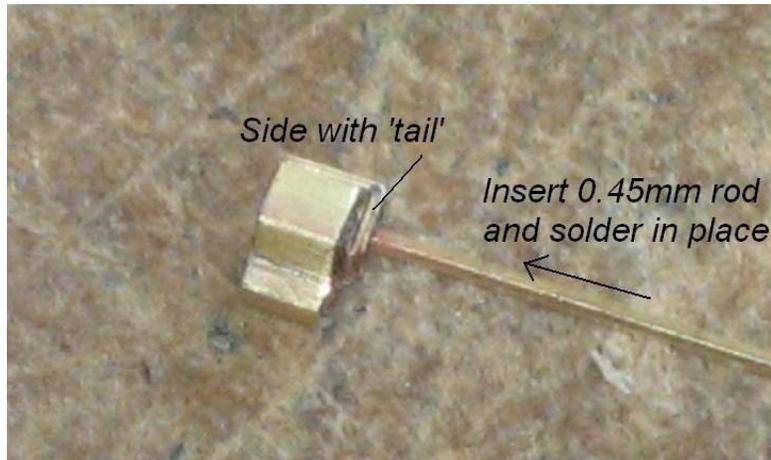
Remove the bracket from the fret and complete the wrap around the sides to form a box with a 'tail'. Solder the sides of the box to the wrapper.



Fold up the 'tail' as shown below.

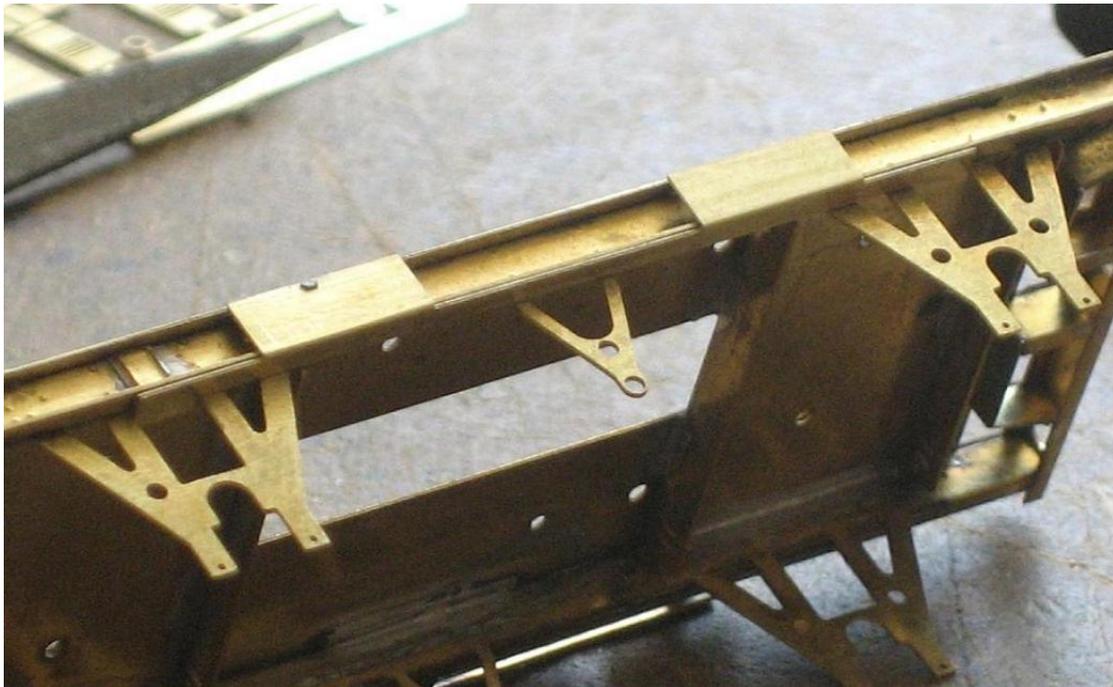


Solder a length of 0.45mm rod through the holes in the tail and sides. Trim so that it extends approximately 0.5mm from the side of the box with the 'tail' and is flush the other side. Repeat for the other inner brackets.



### Attaching to Solebars

Remove the Bracket position setting jig (7) (also marked in yellow on the parts diagram) from the fret and fold up. The jig is designed to fit into the middle slots in the axleguards (this is the same on for both my BR and RCH fitted chassis) and over the front of the solebars. Use a tiny amount of solder to tack the jig in place. Only use a tiny amount as you'll need to take it off and reuse it on the other side.



Remove the central spring brackets from the fret and fold up. Solder them in place on the solebar so that they fit between the central opening in the jig and the central connecting part attaches to the inside top of the solebar. See photo below.



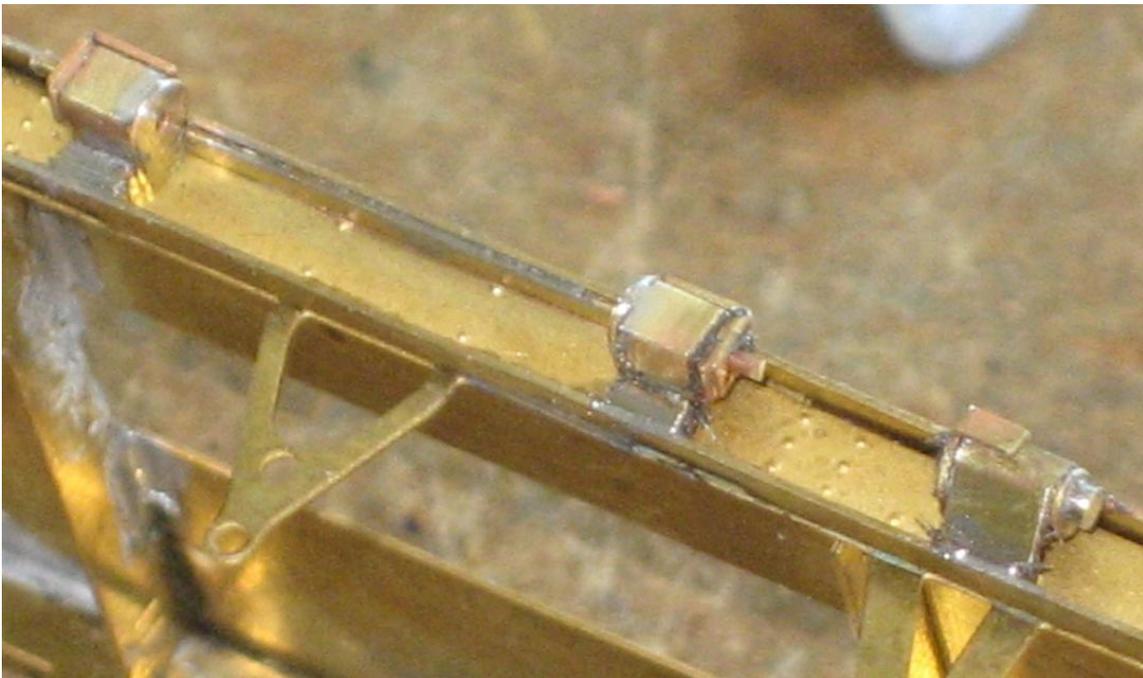
Locate the outer spring brackets in place as shown below and solder to the solebars along the top edge. Remove the jig and repeat for the other side.



With the jig removed turn the chassis upside down and solder the outer spring brackets to the solebar along the bottom edge. There are small connecting tags on those outer brackets intended for use with covers. These need folding up.



Solder the inner spring brackets in place so that they are hard up against the central bracket with the 'tail' side facing outwards from the centre of the chassis as shown below.



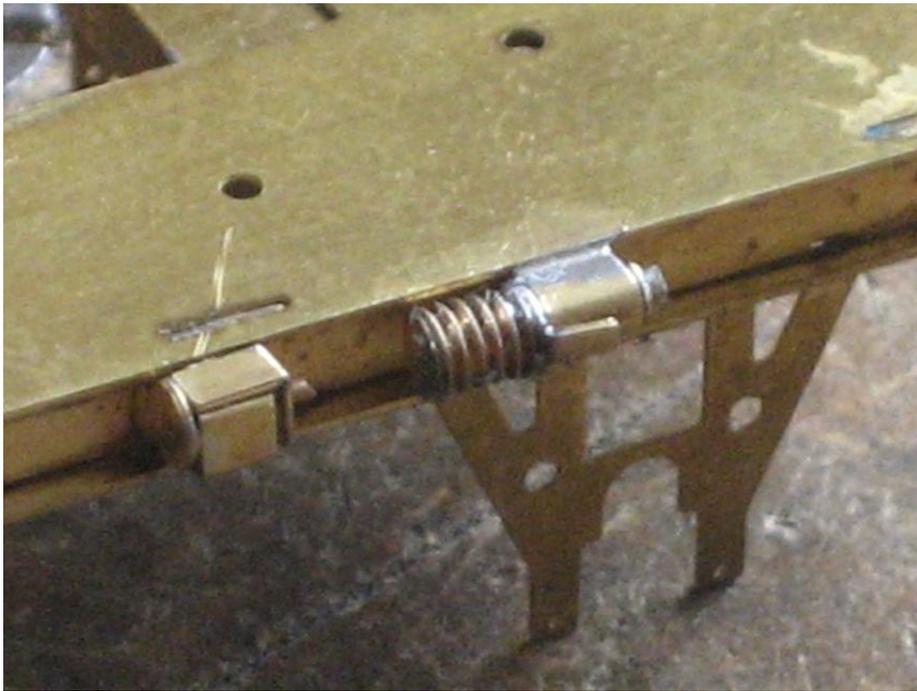
## Cover Brackets

If you are using either of the covers remove the appropriate cover bracket (8 or 9) from the fret and bend into an L shape about the line next to the part with the slot etched into it. The rest of the shape can be tweaked later. Align the etched slot on the bracket with the centre of the solebar and solder in place.



## ‘Springs’

The springs are made from readily available 8BA thread. You will require 4 x 2.5mm lengths and 2 x 13.1mm length. Cut the bolts to length whilst being held in a pin chuck. Turn the wagon chassis upside down and then solder the lengths of 8BA thread to the round parts of the outer and central spring brackets, trying to get them as straight and central as possible.



## Covers

Now that the springs are in place the cover brackets can be bent roughly to the shape illustrated in Fig.1. They can easily be tweaked as the covers are added.

Press out the half etched rivets on the type of cover of your choosing and then attach as follows:

The early type covers (10) are soldered to the inside of the early type cover brackets (8) using the half etched area as an aid and the locating tabs on the outer spring brackets (2).



The angled covers (11) need bending to around 30°s with the half etched fold line on the inside. These can then be soldered over the top of the angled cover brackets (9) and the tabs on the outer spring brackets (3). Some aluminium soldering clamps may come in useful.



That should be it now. They are admittedly a fiddle but they look good. Time to have break before the next one!

Justin Newitt - September 2014

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