

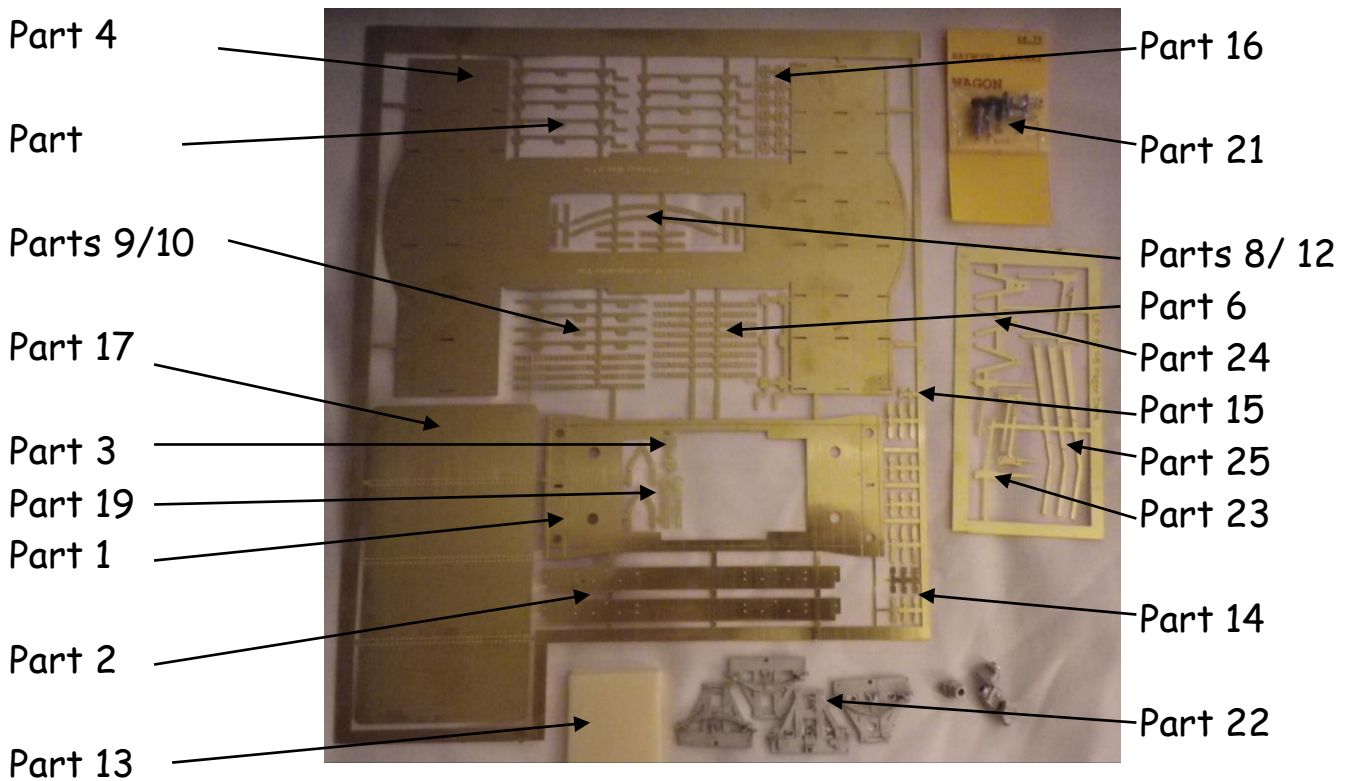
# *Furness Railway Wagon Co.*

## GWR/BR/RCH 7/9ton Gunpowder/Explosives Van

Wheels, paint and transfers required to complete.

Please note that to aid the folding of the various parts score all the halfetched foldlines that are to be folded.

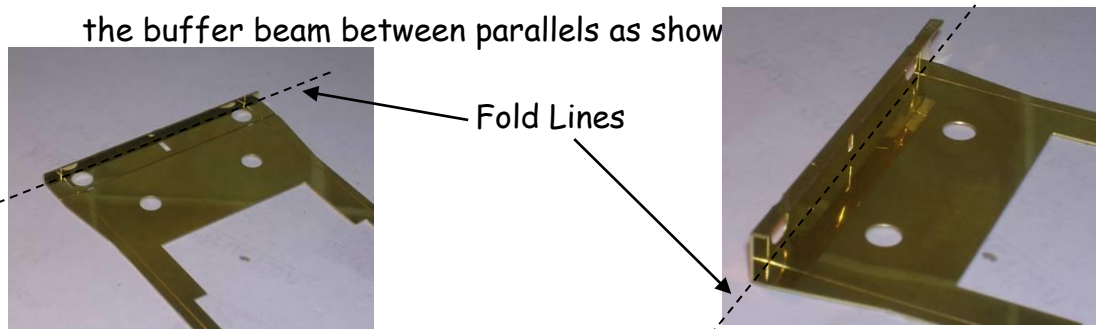
### The Parts.



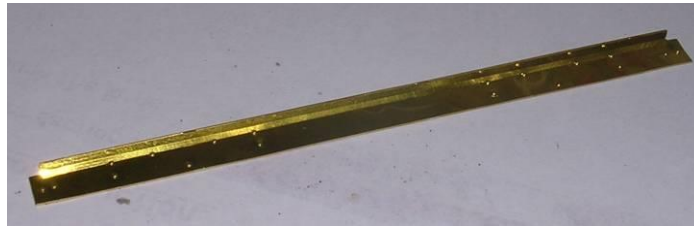
Parts 18/20/26 not shown

### Chassis Construction.

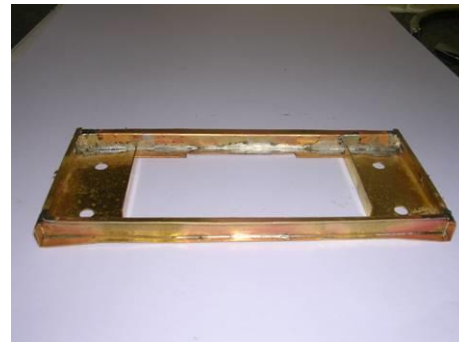
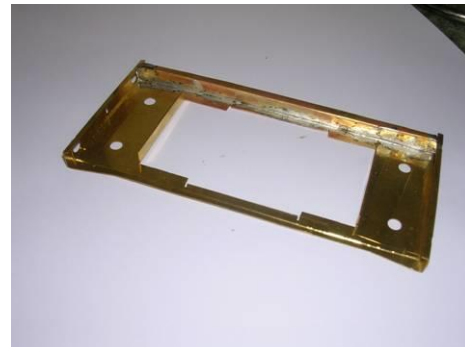
1. Remove chassis (part 1) from the etch and fold up the bottom of the buffer beam between parallels as show



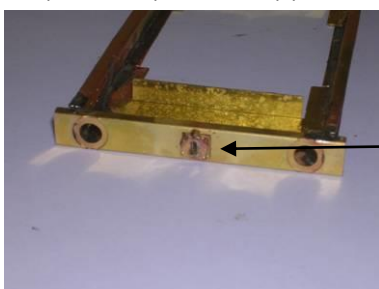
2. Next fold up the buffer beam completely as shown. Make sure that the resulting U shape is square so as to fit the sole bars. Repeat for the other end of the chassis.
3. Remove the sole-bars (part 2) and punch out the rivets. Next fold up the bottom of the sole-bars between two parallels. Make sure that the resulting shape is square.



4. Click one of the sole-bars in to the half etch slot that runs between the two buffer beams. Solder into position using 188C solder. Make sure that the sole-bars are actually soldered inside the buffer beam. Repeat for the other sole-bar.



5. Next remove the buffer beam reinforcing plates (part 3) and punch out the half etched rivets and tin the back of each piece with 188C solder. Now sweat the plates onto the half etched square in the front of the buffer beam.

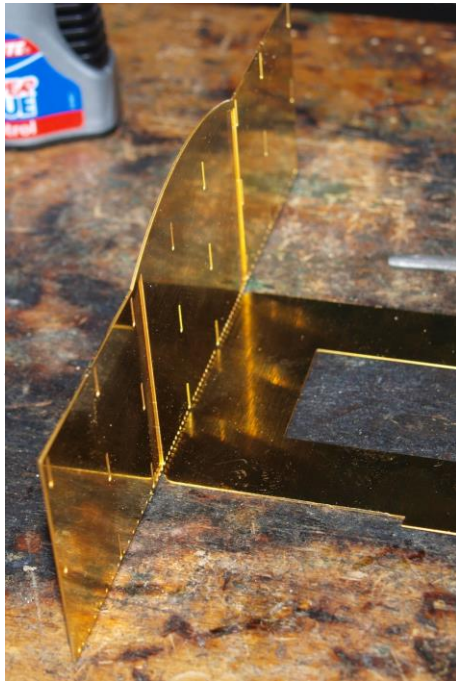


Buffer beam reinforcing plates

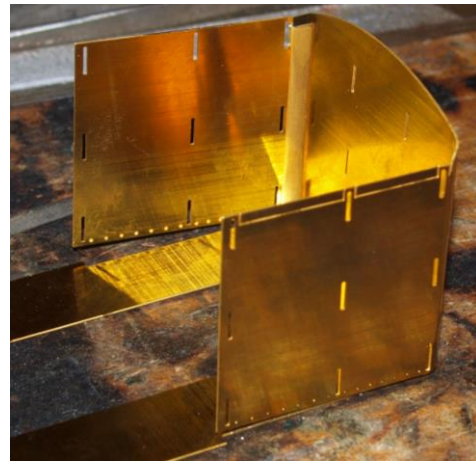
## Final Assembly of van.

### Van Body Construction.

1. First remove the Part 4 (the body) from the etch then punch out the half etch rivets.
2. Fold up the ends and then fold round the sides so they match the

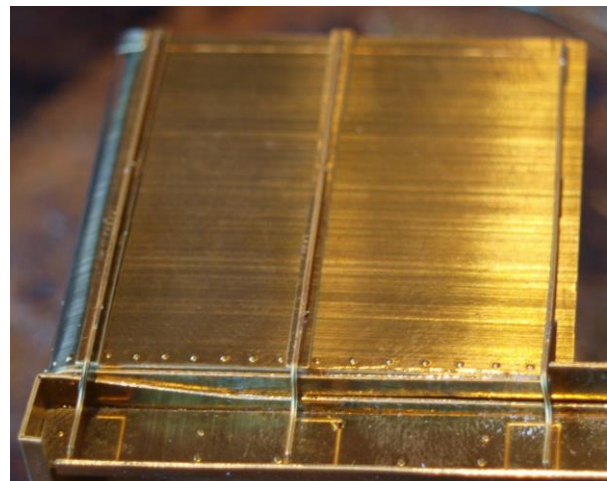


shape of the floor.. It is also a good idea to run a solder fillet down the inside of the



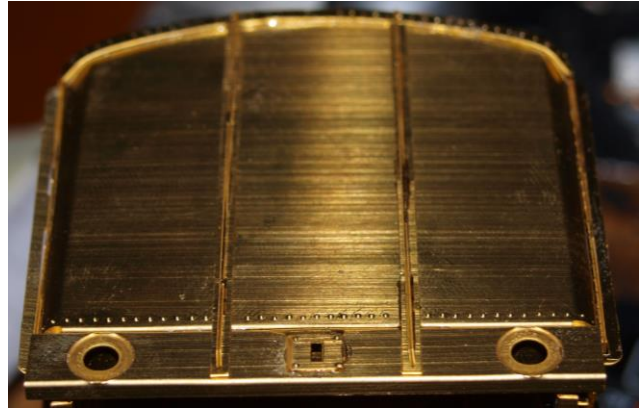
re the floor meets the sides and ends for extra strength as shown.

3. You should now attach the van top to the chassis making sure that the sides and ends of the top are square with the chassis.
4. Now attach the 'T' supports to the sides of the wagon. The tags in the upright sections (part5) fit through the slots in the cross plates (part6) and then through the



slots in the wagon side. The two uprights that fit next to the door opening do not that cross plates and just fit into the slots in the van side.

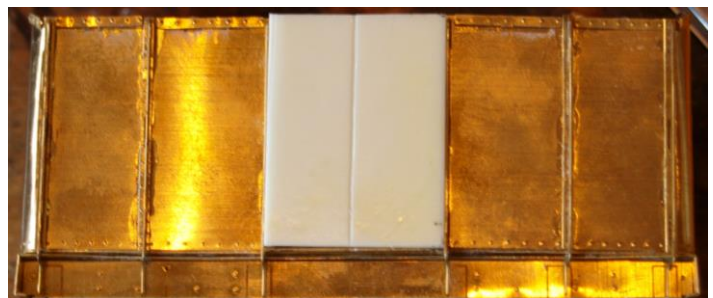
5. Next take the curved edging strips (parts8) from the etch. Punch out the rivets. Then attach the edging strips onto the body. Make sure that the strips are parallel to the curve of the body. Then fit the end 'T's(parts9/10) as in stage 3.



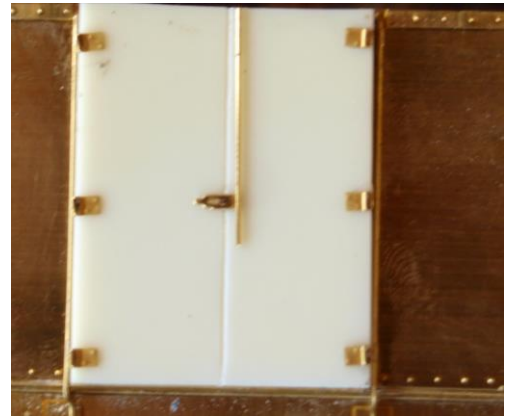
6. Next take the top edging strips (parts 12) from the etch. Punch out the rivets. Then attach the edging strips onto the body. Make sure that the strips are parallel to the top of the wagon and the half etched guide lines.



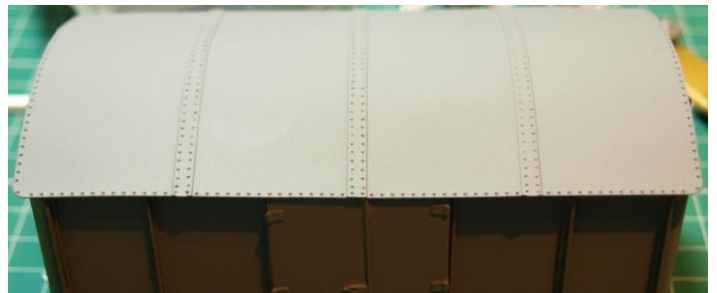
7. Now fit the door (part13) between in the gap in the sides. The casting is deliberately large as the gap can vary depending on how tight the corners of the van were formed. You will also need to trim the door so that it is flush with top of the van.



8. Attach the door hinges (parts 14) and door latch's (part 15) to the pads on the door as shown. These are the square ended ones in this case.



9. Next attach the support plates (part 16) for the 'T's to the sole bars.



10. Next take part 17 (roof) and punch out the half etch rivets in the raised banding. This rivet punching should roll the roof to its correct shape. However it may require to be rolled a little more to achieve the correct shape. Attach the roof onto the van body, being careful not to disturb the edge strips.

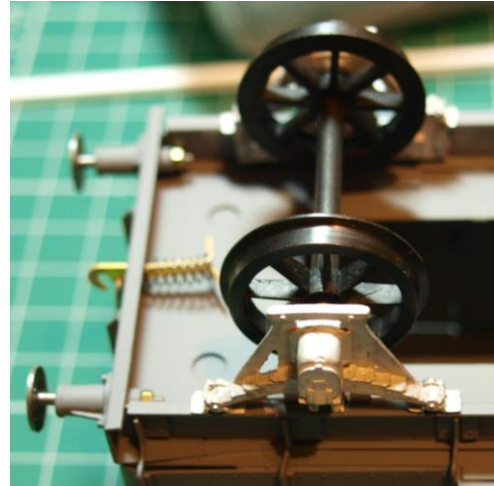
## Final Construction

1. Next, assemble the links (part 18) on to the coupling hook (part 19) and push through the slot. Now push the spring (part 20) over the back of the

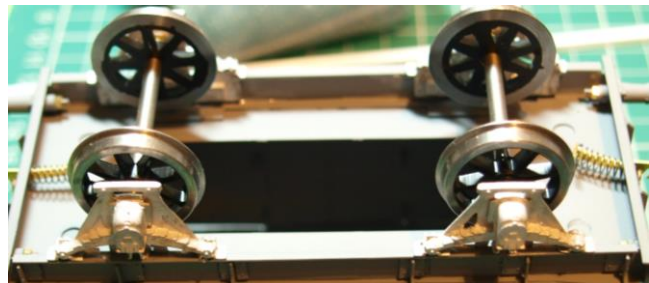


back of the coupling hook and bend the tags over to secure the spring in place. Then fix the four buffers (part 21) into the holes in the buffer beam using two part epoxy.

2. Drill out the w-iron castings to suit the bearings of your chosen wheels. Assemble a wheel set, 2 x W-iron's (part 22), 2 x bearing's and 1 x wheel/axle unit, do not glue the bearings into the W-irons. Again using two part epoxy resin, glue the assembled wheel set onto the sole-bars so that they are square and line up with the rivets on the sole bar.



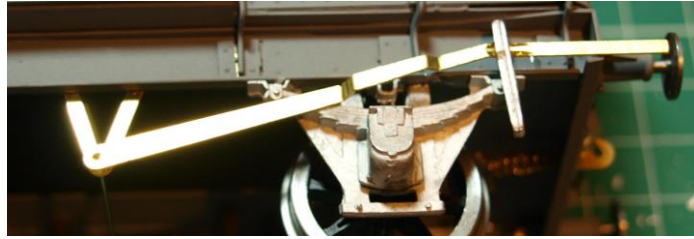
3. Repeat for the other wheel set. Use a straight edge across the back of the wheels to aid getting these parallel and square to the chassis.



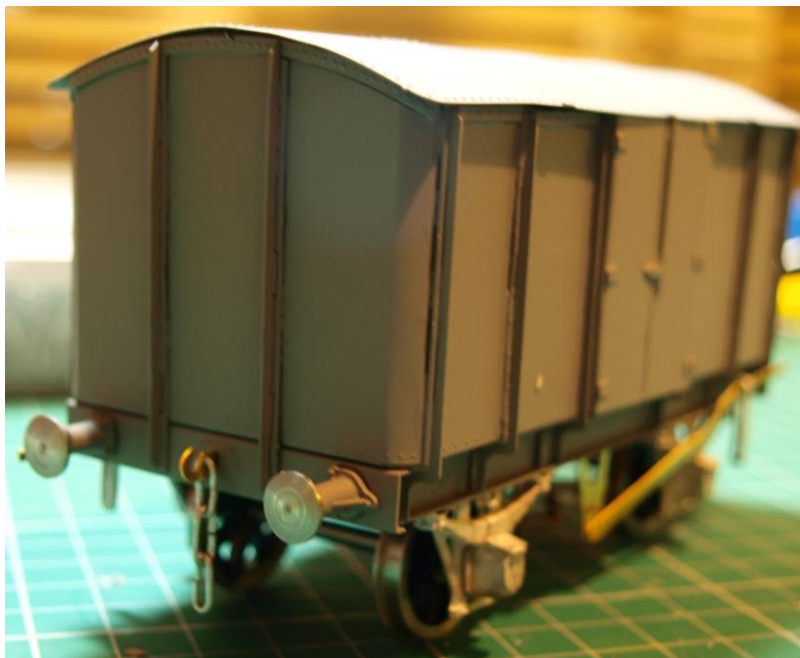
11. Glue the brake gear (part 23) together onto only the one side of the wagon, as shown. Then glue the V-hangers (part 24), into position on the sole-bar centrally .



12. Fix brake lever (part25) and ratchet casting (part 26) to the outside V-hanger as shown. Repeat for the other side.



13. Finally paint the model in the livery of your choice.



## History of the Wagon

The GWR built 36 gunpowder vans, to diagram Z1, in 1897. The design was the standard GWR mink lined with lead and with no vents and steel doors. This design was adopted by a number of other railway companies for gunpowder van at this time. Axle boxes, brakes and buffers followed standard GWR practice of the time.

These vans were painted black from the time they were built until they 1930's when they would have been painted red-oxide. Most of these vans would have made it through the Second World War to British Railway owned in 1947. The last van to be broken up was so in 1951. So were converted back in to minks only to be reconverted in the 1930's

The known GWR number are 58791-800, 16995-17000 and 16970/1/4/-86/89/91-4

### Privately Owned wagons

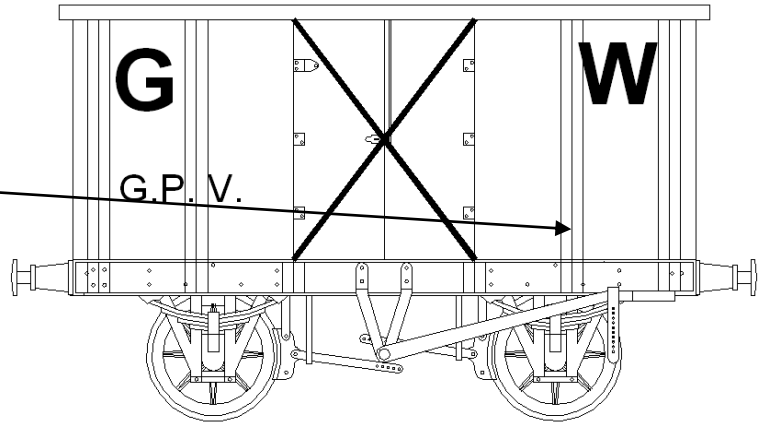
Vans of this type were built by a number of wagon works around the country for various explosives factories and gunpowder mills. Hurst Nelson and Metropolitan Wagon and Carriage, being two examples. These vans would have been turned out in various liveries to suit their owners.



**Liveries**

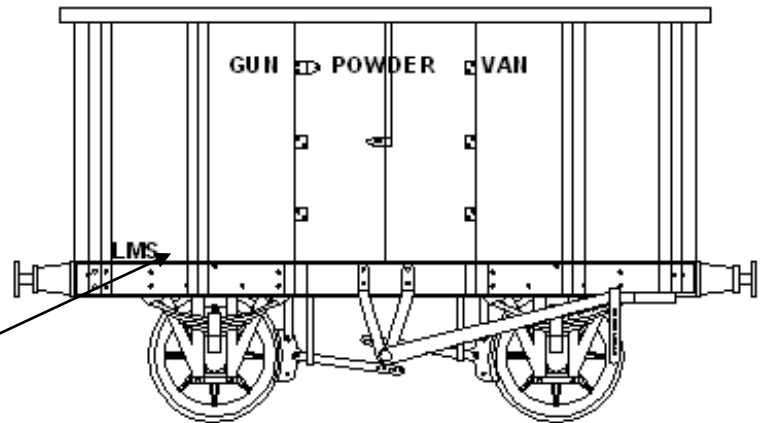
GWR Livery  
Circ 1897-1936

Numbers

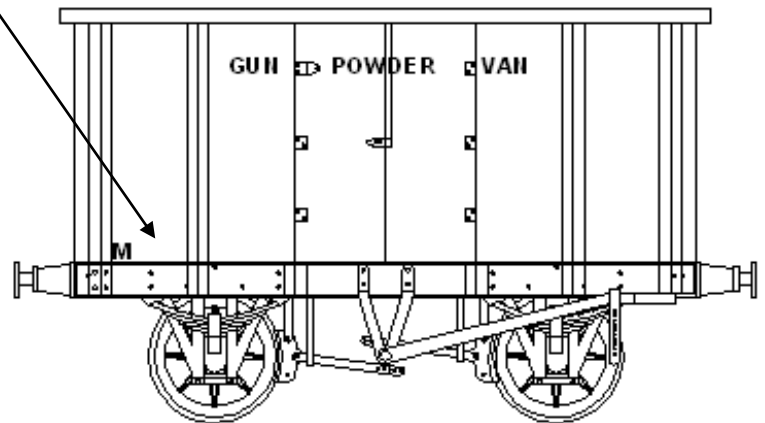


GWR Late Livery  
Circ 1936-47

Numbers



BR Early Livery  
Circ 1947-51



# *Furness Railway Wagon Co.*

## **GWR/BR/RCH 7/9ton Gunpowder/Explosives Van**

1. Construction Manual,
2. One Brass chassis etch,
3. One Brass brake etch,
4. Two brake ratchet castings,
5. Four W-iron/axle box castings,
6. Four buffer assemblies,
7. Two coupling hook springs,
8. Six coupling hook links.

We recommend Slaters 3'1" split spoke wheels.  
Various transfers are available from POWSIDES.