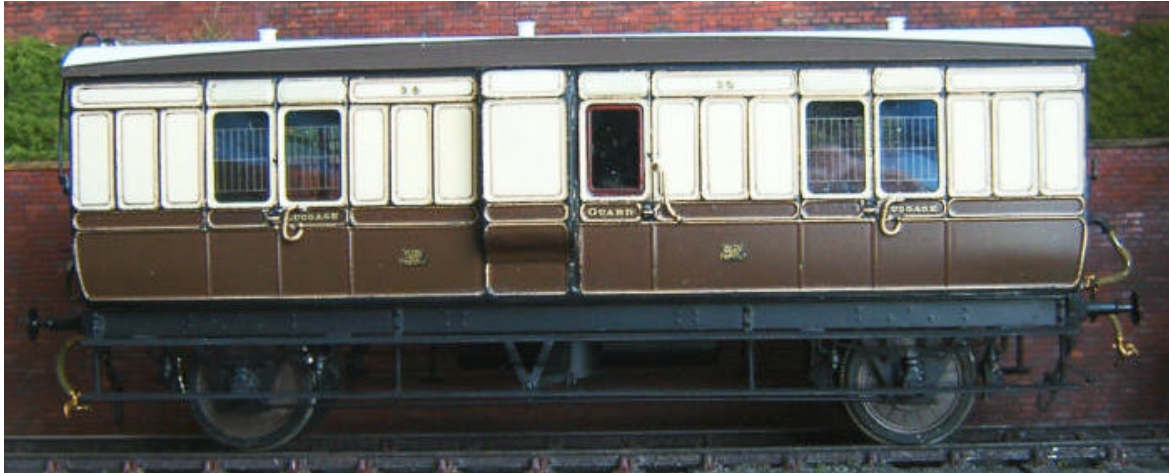


## GWR 28' Passenger Brake Van to Diagram V5

Based upon a Colin Waite bodyline kit

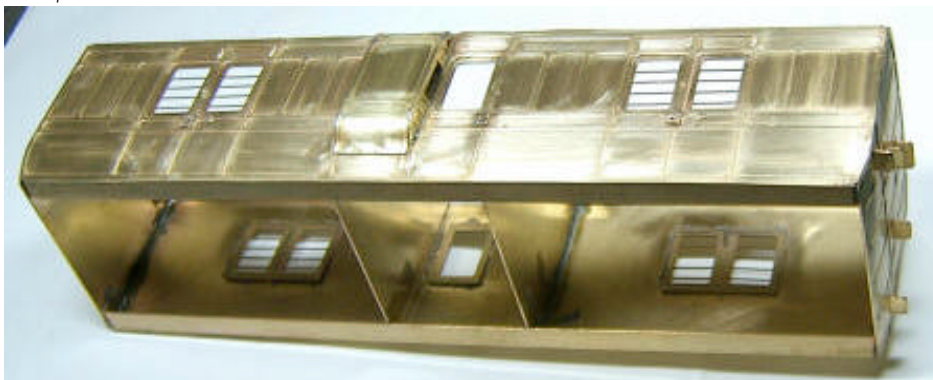


This is to be part of a train that includes the Finney 3232 Class 2-4-0, a Blacksmith Diagram E24 Brake Composite, plus a Blacksmith 38' brake third and a Colin Waite V2 PLV.

The basis for this vehicle is an old Colin Waite bodyline kit I bought years ago at the "Bring & Buy" stand at Telford.



The body has been mostly built and presents no real problems being a very similar in construction to the E24, but smaller.



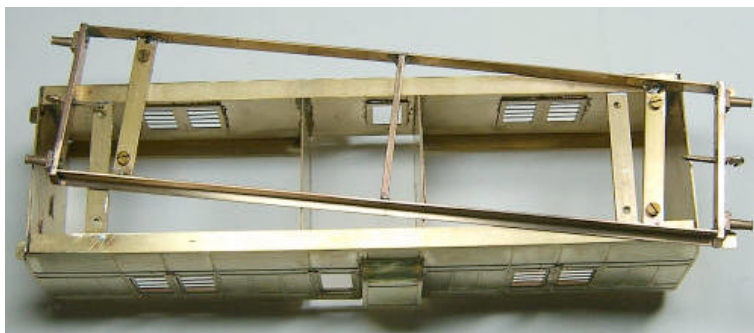
The parts all fitted together well and the etching is up to the standard one expects from such an illustrious

source. These pictures of the body shew it needs some further work, having been built before the days I learned to do as much "in the flat" as possible. The window bars need to be removed (indeed they were replaced with better ones from CPL) too so that the glazing can be fitted.

In due course I corrected and completed it. However, it needed a complete under frame building from scratch. This was started by making up the solebars from brass angle and the buffers beams from solid strip. Soldered together with a centre spacer.



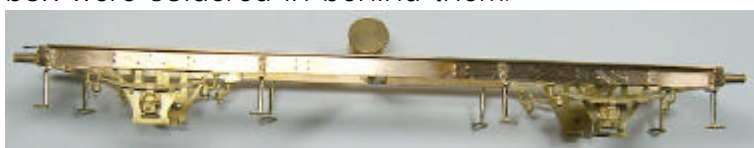
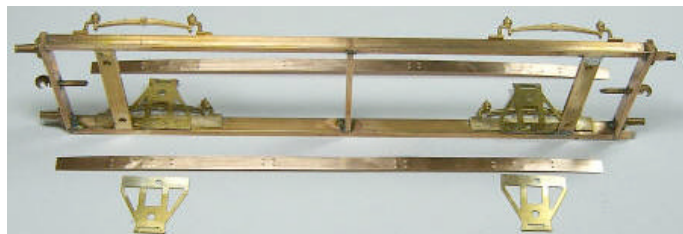
The buffers and couplings are from CPL while the rivet detail on the buffers planks and step are from a sheet of etched parts from IKB. The frame must be square in both planes but this is relatively easy using the steel RSU plate and magnets to hold the part together while soldering.



This is a job that has not been well planned (it was started at least two years ago!) and so this should be read as a master class in how NOT to scratch build.

A method of fixing the frame to the body was tackled next. Two pieces of 2mm x 6mm brass strip were cut to fit between the solebars and two more to fit inside the body. One of each was then lined up and clamped together while pilot holes were drilled. The larger piece for the body was drilled and tapped 8BA, the smaller drilled to clear. The smaller lengths were then soldered to the frame. The frame was clamped to the body using the tapped pieces and 8BA bolts, taking care to line the frame with the body. Then the tapped lengths were soldered in from the inside of the body. Result, a strong and accurate fixing. However, one of the consequences of "making it up as you go a long" is that the fixing bolts are now just a tad close to the wheels!

The 18' wheelbase was marked in and a set of CPL lost wax, long J hangers, springs and axle boxes soldered in place. Some W irons from the spares box were soldered in behind them.



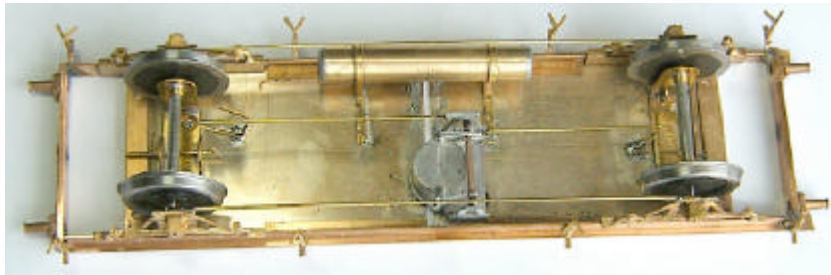
At this stage I thought the solebars looked rather bare so fabricated some overlays using 0.2mm x 6mm phosphor bronze strip, pressing bolt head details from behind.

6mm phosphor bronze strip, pressing bolt head details from behind.

Once the overlays were fitted, eight Slater's footboard supports had the pins cut off and filed nice and flat before being soldered in place. The wheels are to be mounted in WEP compensated units. These, the vacuum cylinder and brake gear will need a firm base to sit on so a partial floor of nickel silver was next fitted. This is held in place with a few strips of 4mm brass angle. It is probably much over engineered but I like things to be robust.



The wheels are set in WEP compensation units; the vacuum cylinder unit is from Cavalier in white metal. The brake rods are glued into the adjustable rod pullers but soldered to the floor of the vehicle for strength. The gas tank was turned up from some brass stock and has modified Blacksmith white metal ends glued on with Loctite 480. The central support member had to be removed to fit the vacuum cylinder (yet another consequence of "making it up as one goes along!") but, now the floor is fitted, does not affect the strength or rigidity of the frame.



The next job is to assemble the clasp brake shoes and fix them in place before soldering the step boards on. In fact I fixed the step boards

before the brakes. The brakes were cobbled together from some spare IKB



etched sheets I had to hand. I had also to fill the gaps in the floor so that my Heath-Robinson mounting system would work. The

Van is now complete and ready for delivery to Dennis's paint shop.

Once painted the windows were fitted and the new bars to all but the guard's door set behind them.



Back from the paint shop it is clear that Dennis has done a great job in bringing it to life.

