

SIDE ELEVATION

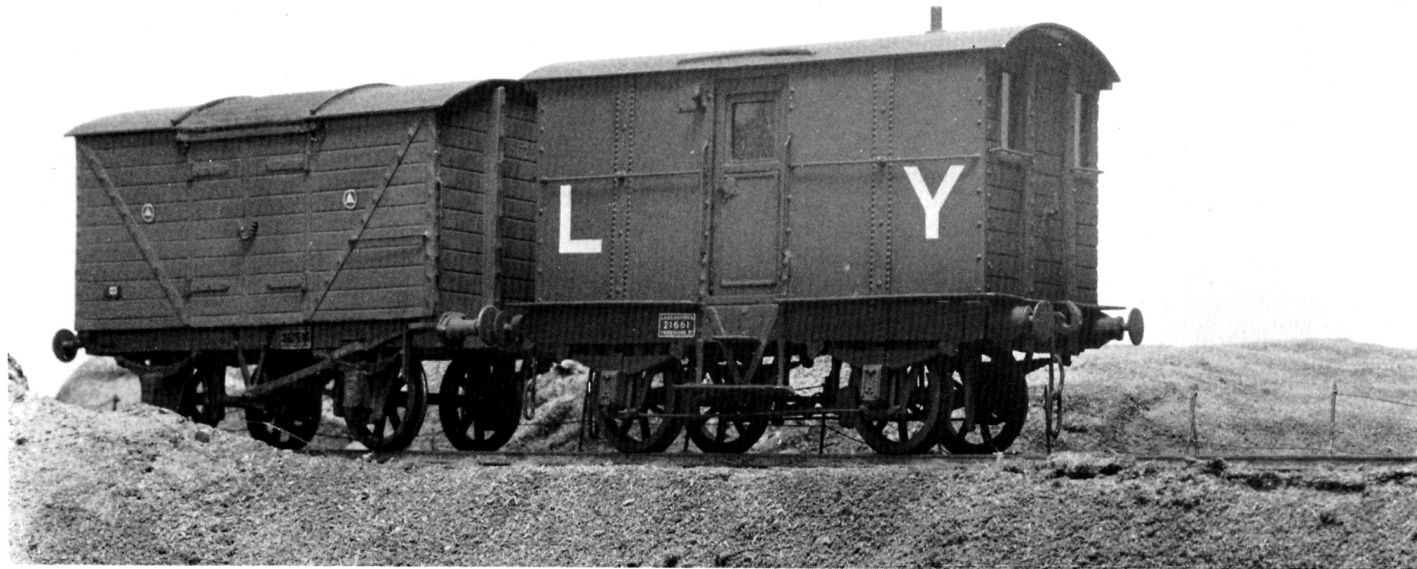
LONGITUDINAL SECTION

General arrangement drawings for the Lyr 10-ton break vans were redrawn from time to time as further orders for the vehicles were placed. There were over 500 built between the late 1870s and the turn of the century and it is not surprising that many variations existed. Prior to 1892 the sides were a few inches lower with a roof of flatter proportions, and many had a birdcage look-out at one end. The lamp on the bodyside was a fixture in the early years with access to it from inside the cabin, an oil lamp being placed into the lamp in the same way as the lamp was used in many carriage 'duckets' of the day. This drawing also shows the exterior bracket fitted next to it when the fixed lamps were removed; such a modification was added to the current GA drawing without the whole thing being redrawn. This drawing is actually a traced and simplified copy of Lyr No. 2769 of 1892 so we can assume that the change of lamp took place soon after that date. All the vans had a rectangular patch of metal fixed over the aperture where the old lamp had been. The rainstrips offset to one side were never altered.

This drawing represents the majority of 10-ton vans built and the kits on the market are for this basic type which varied only slightly, even though over 300 were built to it. Most of them had the doorway handrails extended to the footboards and some had the iron plates fitted without the overlay strip above each axlebox. The kits can be finished in this way to represent the final batch of vans built. Although all were built with Attock's patent grease boxes, oil bearings were fitted to many of the vans still in service in later years.

L & Y 10-TON 'BREAKS'

BARRY LANE offers some prototype information and modelling hints on the iron-sided brake vans used by that most distinctive of LMS constituents, the Lancashire and Yorkshire.



A 10-ton brake van in the livery as applied from 1903. Many of the vans were absorbed by the LMS and the last one probably saw service into the 1930s. Bob Essery took me to task for never glazing the window in the doors of my brake vans and so this vehicle has the droplight in the closed position, although I told him at the time that I have yet to find a photograph showing the window closed. The solebar numberplate comes from a sheet of photographically produced plates covering most LYR freight vehicle types. The beautifully-detailed boltwork is enabled by the etched brass bodywork of the kit but the end stanchions are new, to match the later size of planking.

Photographs and drawings: Author

It has been said that the iron-sided boxes the old Lancashire & Yorkshire Railway called Break Vans were the ugliest of vehicles. I for one am fascinated by them and have modelled many variations over the past decades. As the LYR becomes better known – especially by those in the South who do not acknowledge my favourite railway because it did not have a London connection – some manufacturers have helped the situation by producing kits for us northerners. It is often overlooked that LYR carriages and wagons often appeared in foreign parts hundreds of miles from the parent system, and modellers could well find that they could justify several vehicles on their own layouts. However, this article is not meant to spread the gospel but to relate my own adventures with the building of a very particular vehicle type.

In the mid-Victorian period, the LYR, like most other railways, used guards vans limited to 10-tons capacity, four-wheeled, and wooden bodied. The body was usually heavily cross-braced and full of character. The GWR, LNWR and NSR spring immediately to mind as users, because their types lasted well into this century and were absorbed by the Big Four. The LYR, too, had several similar examples but all quickly disappeared with the emergence of a new design from the new L & Y Carriage and Wagon Works at Newton Heath, Manchester. The timber-sided types were typical of the day, with an end verandah, and the same layout and sizes seem to have been continued in the new type. The main difference was the sheeting of the sides with thick iron plate, and this was to feature in every subsequent design of brake van built by the LYR up to the grouping.

It is generally suggested that the iron sides were for weight. While this may be so, it is possible that

it was to strengthen the bodywork in the absence of the usual diagonal framework previously used on the all-timber bodied vehicles. As there were pockets containing iron weights beneath the floorboards of the vans, the iron sides were not the only source of weight.

The earliest type designed by Attock, who occupied the position of C & W Superintendent from the opening of the new Works, has never been well publicised. This is due to the drawings not surviving and photographs being extremely thin on the ground. The discovery of one of the 1878 type in the background of a photograph taken in 1907 meant that, suddenly, the most archaic example could be justified for my chosen period, and so a model was produced. I adopted known dimensions from later types as the early drawings did not exist, and used photographs to assess the rest. Close-up photographs of the model when half built were compared with prototype pictures and several corrections made. This is a most useful practice to adopt when building any model as the camera can be very cruel, and any out-of-true details or wrong proportions really do show up. Yes, it does waste time, but my employment means that modelling is usually done in giant doses with prolonged gaps between, so this photographic exercise is no deterrent to progress. Have you ever seen one of your hand-built vehicles enlarged to twice life size? It can be frightening.

SCRATCHBUILDING NOTES

It is a simple matter to construct a four-wheeled van. I do not intend to list the steps in the manufacture of my model – that would be too tedious. My own approach is to build with Plastikard of the thickest size available where it

will not show. Thus the solebar and buffer plank are 60-thou, with the floor and body box made of the same thickness if at all possible. Where planking is required, I will use the commercially available planking for lots of parts but always stick it on to a backing of the thicker material. Larger sized planks above 7in prototype standard are better scribed onto the surface of styrene sheet and I have done this many-a-time, although it is not as straightforward as it might sound. For scribing, I use the back edge of the craft knife, going down the line over and over again, shifting the blade to various angles to take off raised edges on either side of the groove. It sounds elementary, but I see many models spoilt by a surfeit of plastic either side of the groove and sometimes wonder if people realise how bad it looks. A final rub over with fine emery paper makes quite sure that the scribed planking has a decent finish to it and also helps to provide a good surface for paintwork. On several wagons, I have gone a stage further and actually cut each plank from thin styrene sheet and stuck it onto thicker material, leaving a narrow gap between the planks. This method is my favourite for wagons, but the planking strips have to be perfect or you are wasting your time.

Castings for axleguards and buffers are available for just about every chosen prototype from one source or another and the LYR has been well served in this respect. Although white metal can stick well to styrene with two-part epoxy, a large casting which carries load usually comes unstuck later; I now build pockets on the inside of the solebars into which the casting slides, and liberally stick it in place with polystyrene cement. Some castings have holes in the top edge (a remnant of the days when '0' gaugers screwed axleguards onto their wooden vehicles?) and the



The National Railway Museum has a view very similar to this one in their archives. Like all photographs from a century ago, anyone who moved while the exposure was made comes out as a blur and my model population are no exception. This is the earliest type of 10-ton brake van built by the LYR and subsequently referred to as 'Tin Tabs' (a derivation of 'tin tabernacles', due to the iron sides) or 'Dolley Brakes'. The vehicles bear the illiteracy symbol adopted by the LYR but as the vans had such a unique appearance, it is unlikely that they would ever be mistaken for any other railway's brake vans.

glue has something to get hold of on these. On plain-topped castings, it is as well to scratch the surface to allow a little more 'hold'. Buffers are often sold as solid castings and these I drill out to accept buffer-heads and springs. I always use Slater's heads and springs, drilling out the casting exactly as we used to do on their wagon kits. Having used all sorts of variations over the years, I think this method is by far the best. It amazes me that some kits are still sold with solid, unsprung buffers.

Where rivet detail is required, I use a commercially available rivet tool. This comes with two sizes of die but I requested further sizes from the manufacturer and these were gladly supplied under the heading of '00' size rivet dies. With a selection available, I find the riveting tool an invaluable aid. Gone are the days of tapping them out by eye with a sharpened nail on a sheet of hardboard; bolt heads can be added by sticking in place tiny bits of chopped-up strip, in the time-honoured way. A far better way, particularly where decent-sized bolt heads are required, is to use the all-in-one plastic bolt head/washer mouldings by Grandt Line of America, obtainable from importers and becoming more easy to come by. I tend to hold a stock of things like that against the day when I will require them and my bet is that most other modellers are the same. These days you have to get things while they are available as too often the source dries up just when you want some.

I do not entertain compensation of the standard 9ft wheelbase; if such a short wheelbase

won't stay on the track, then the wheels are not level or the track is hopeless. I have had just as much bad running with compensated chassis units as with poorly-aligned wheelsets and, since the only way to cure an over-wobbly compensation unit is to add weight (and more weight), I look at track standards first. I just don't find that the extra work in compensating the standard wagon wheelbase is necessary in my experience.

HINTS FROM EXPERIENCE

For glazing, nothing looks like glass but the real thing and after a number of dusty years, other materials tend to lose their surface under a mass of tiny scratches. I have actually cleaned model carriage windows after many weeks of exhibition use and glass comes up like new with a dampened corner of a clean handkerchief. The thinnest generally available glass is 2mm thick and my local glass merchant will supply it in strips of around one inch wide, depending on the depth of the window to be glazed. On plastic-bodied models, the glass helps to stiffen the side of the vehicle, too (and nothing is more aggravating than a carriage bodyside bowed inwards through handling). The acid test when others argue against my method of glazing windows is to show a vehicle with drop-lights and quarter-lights; all my droplights, shown in the closed position, lean inwards slightly at the top just like the real ones! Younger modellers may not realize that to make a real droplight stay in the upper (closed) position, it was necessary to push the bottom of it forward

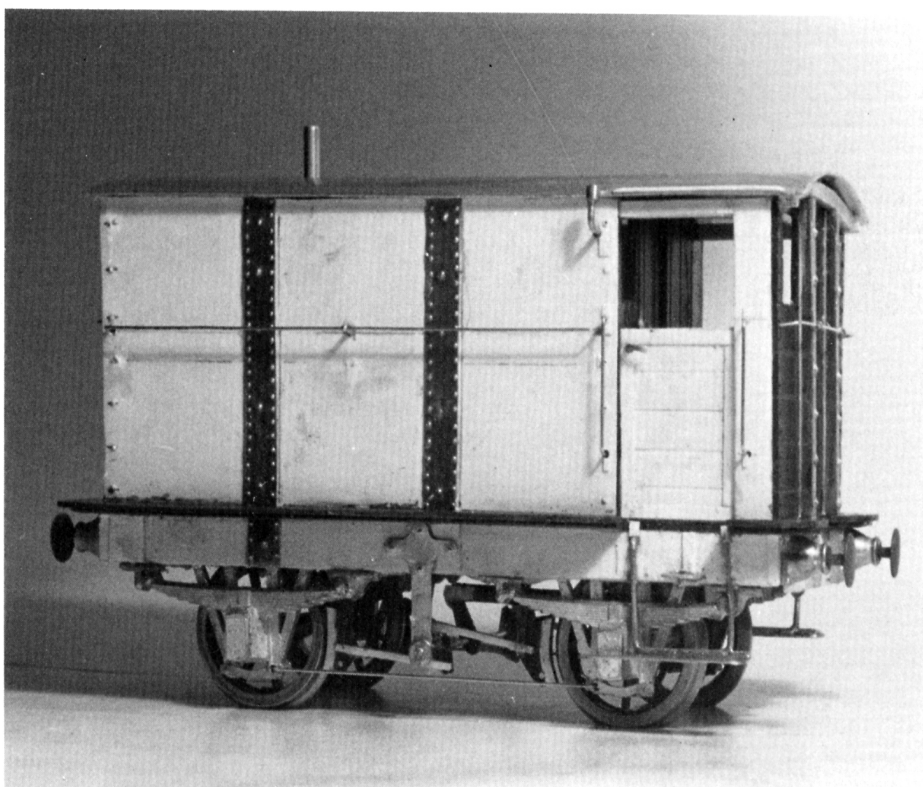
on to a ledge in the doorframe, where it was supported; all closed droplights on almost all stock built prior to the BR period had this feature and it shows well on many older photographs. On a model, it is just one of those finishing touches that completes the 'picture'. Normal 2mm glass is cut easily with the aid of a cheap and simple glass cutter – a scratch line down one side of the required piece is enough and it can be snapped between the fingers. A simple channel of styrene at top and bottom is a good precaution to stop the glazing coming loose inside a finished vehicle (as has sometimes happened) and a dab of quick-setting epoxy secures it in place. The thickness of the glass I use has never been an embarrassment, but I must admit to trying thinner glass on some models. The thinnest-available material comes from old photographic plates or microscope slide sheetstock and would be ideal if it was as easy to cut as my favourite stuff, but each to their own in this area. I'm afraid that 4mm builders will find my thicker glass of little benefit to them and my old friends in 2mm will find even slide glass of little use. Only in the larger scales does the glazing material seem to make such a great difference, and it is worth the extra work to try and use it. Readers are recommended to see David Jenkinson's wise words on this topic in his articles on *MRJ's* 7mm LMS coaches.

My final deviation from the norm is in the use of roof material. Like nearly everyone else, I used to use styrene sheet, but soon found that the corners of the roof on most vehicles broke off. The material itself becomes brittle with age and

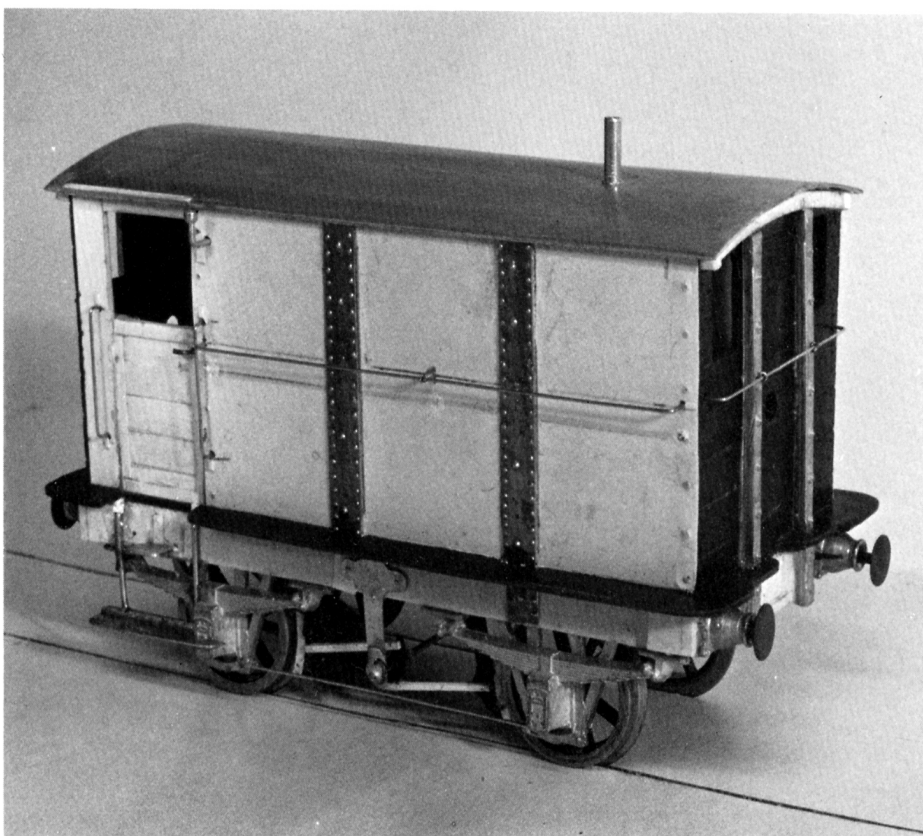
generous use of plastic adhesive accelerates the hardening. I had not replaced too many roofs before it occurred that some old aluminium sheeting that was to hand would make admirable roofing material. It is about one sixteenth of an inch thick and can be obtained at some of the larger DIY chain stores as fireplace backing sheet. I find that it scores with a Stanley knife and, by bending along the score line (as with styrene sheet) it breaks easily. It is soft enough to curve easily – I ease mine into shape around a suitable object like a rolling pin, or roll a brush handle over the piece while it rests on thick carpet – and can be trimmed with strong scissors should the need arise. On van roofs, boards often showed indistinctly through the covering material and this can be imitated by first scoring the reverse side of the aluminium; when curved later, the lines begin to show and can look most convincing.

These are a few personal approaches to rolling stock construction, developed by experience and successful in application for me. The final effect – painting – is again a topic on which I have strong personal views. Just about every model tends to lose some of the paint by being handled, with the result that all the vulnerable corners and edges revert to the colour of the original material used to construct the model. For a vehicle to look authentic, it *must*, in my view, have a flat finish, yet these are the worst for coming off during handling. I therefore paint all my vehicles with a first coat of *gloss* colour, which keys onto both styrene and brass much better than flat finishes; a final coat of flat colour gives the effect I desire – and if a little of it ever comes off, it only reveals the same colour underneath. Talking of colour, the L.Y.R. painted its brake vans black from around 1880. As many modellers know, black can destroy detail work on models by soaking up light and generating little more than a visual mass of darkness. I therefore always use very dark grey instead of black; not one person has ever commented that the model isn't black as it should be. Unless you are actually aiming for a *very* black object without any features, paint it charcoal grey for that authentic appearance.

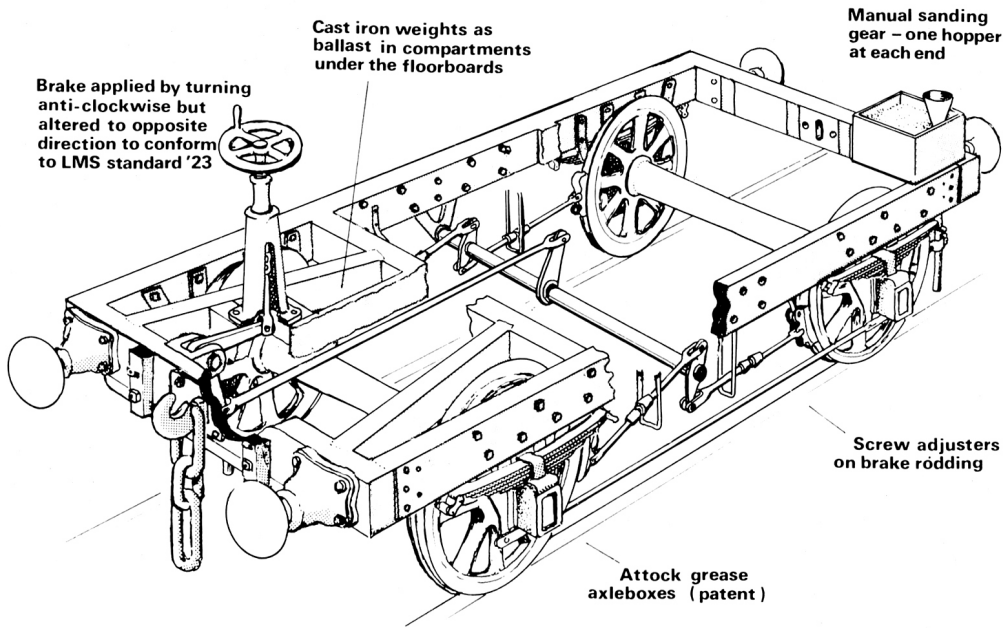
A rather nice effect on old stock is to get that cracked and crazed appearance to the paintwork. I stumbled on a way to do this some years ago while modelling on holiday, when after a ten day period of cold, wet English summer weather, I had all but completed a four-wheeled carriage in the hotel bedroom and applied a coat of gloss paint around about the Tuesday. The holiday was to finish on the Saturday and the heatwave we had wished for arrived on the Wednesday. By the Thursday my model was still extremely sticky and by Friday, the paint was still too tacky to be packed for the homeward journey so I purchased some matt finish Humbrol from a local shop and applied one coat in the hope that the flat paint would provide a dry coat in hours rather than days. It did, but the surface of the paint shrank to leave tiny cracks all over the surface. I put it down to applying the flat paint onto a gloss finish that was not yet fully dry; perhaps the heat of those last few days of our holiday contributed, but it certainly is a superb effect for the right vehicle and well worth trying to achieve if you can.



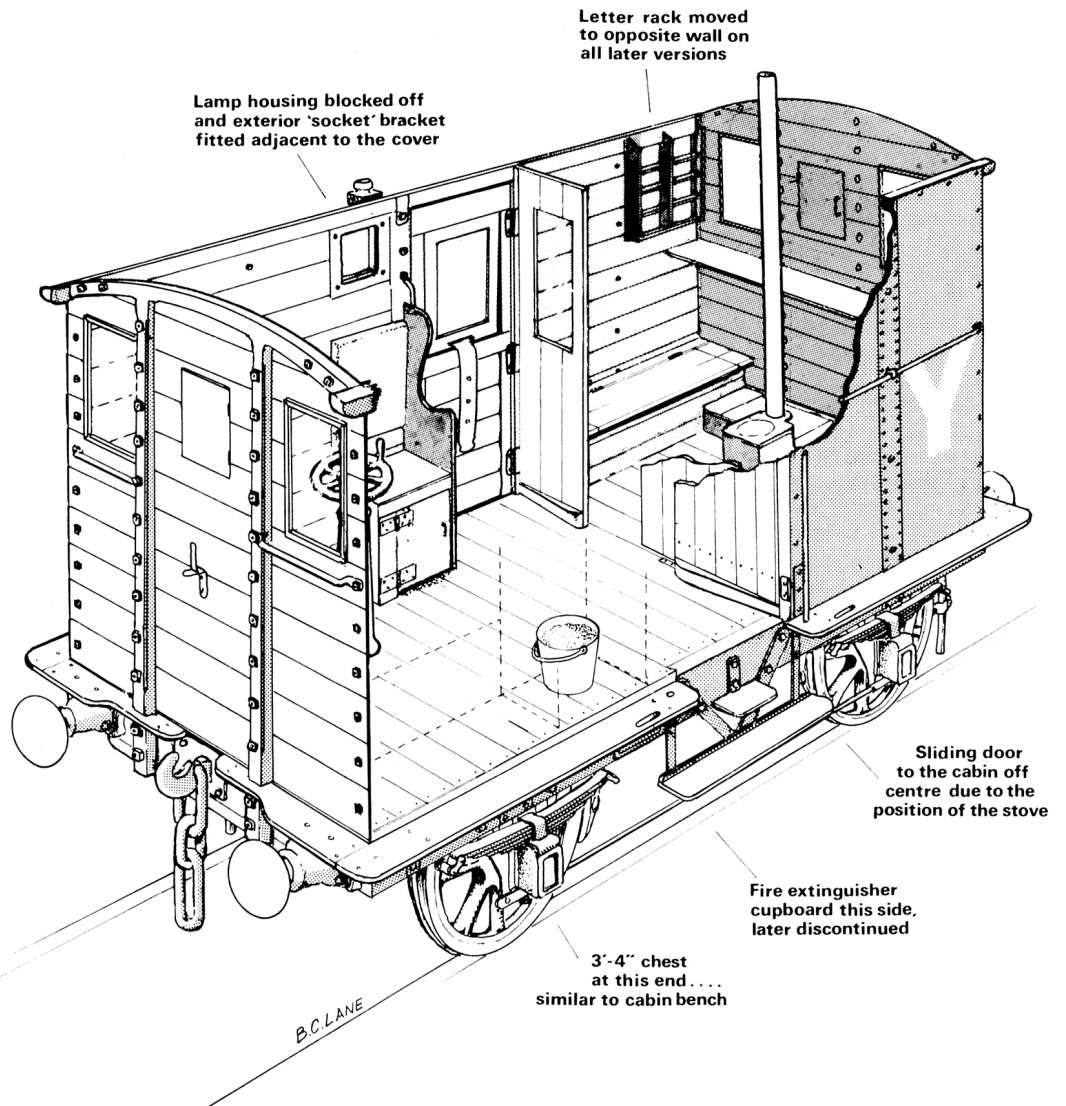
The 1878 van before final detailing. This view showed me that the brackets for the side lamps were far too high and they were easily lowered before the model was completed. The roof is only laid in place at this stage. The castings for the end stanchions are from the Modellers' Mecca kit, and are absolutely correct for the early period vehicles with broad planking.



A distinctive feature of all L.Y.R. brake vans built in the last century were the footboards around the entire body. Had there been any lamp irons on the ends of the vehicle, the boarding would be easier to understand, but the lamps were situated inside the cabin at this period and seen through the circular hole in the end planking. The rather short 8ft 6in wheelbase shows well in this view, taken to check on faults and proportions before completion of the detail work.



Simplified diagram of underframe to show the brake arrangement in 1890



THE MODELLER'S MECCA KIT

As I said at the beginning, the trade has brought out some kits for the LYR enthusiast and things have become quite a lot easier because of it. D & S introduced a 4mm kit of the 10-ton brake van several years ago and it has been a most popular addition to many pre-grouping layouts. When Modeller's Mecca decided to introduce the kit in 7mm scale, they had the D & S etchings enlarged and commissioned new castings for the larger scale. I supplied a selection of copies from the original LYR drawings with the comment that the kit might be adapted to include parts for the modeller to build the variations of the brake van that were applied over nearly twenty years of building, notably the birdcage roof type. While this proved impossible without altering the etching artwork, the castings were made from a mixture of the drawings supplied and do not match the etchings. Beautifully cast end stanchions are included in the kit but the bolt spacing is right for the earlier 10in wide planks while the etched planking is the later 6¾in width boarding. I therefore made new end stanchions for my kit vehicle with boltheads from Grandt Line to the correct centres. The superb castings

found a good use on the early period brake van subsequently built from scratch!

Even members of the LYR Society were confused by the lamp positions on these brake vans and so with the help of my good friend Noel Coates, a feature was produced for publication in the Society Journal. All vans with the entrance door in the centre of the bodyside had the lamp irons to one end of the van, opposite to the cabin end (identified by the chimney in the roof). The kits have the two sides alike but the sides should be mirror images of each other. Even the doors were hinged differently. It is a coincidence that nearly all the available photographs show the same side of these vans, so it has never been generally realised that the lamp positions or door handles were different on the 'other' side. If you have a kit or are going to build one of these characteristic vehicles from scratch, I hope my drawings and experience will assist you.

FOOTNOTE ON TERMINOLOGY

The LYR usually referred to its goods guards van as *break* vans rather than *brake* vans. This was a Victorian description in the same vein as goods trains being at one time called luggage trains. While the Diagram Books, drawings, orders and accounts usually used the modern word 'brake', the Control Arrangements, Rule Book and the (older) men persisted with the spelling 'break'.



The kit brake van built up as supplied. The side lamp position is in the wrong place and should be on the right-hand side of the door which is hinged wrongly too. I have positioned the rainstrip correctly and the lamp iron was moved after this photograph had been taken. The author's scratchbuilt model of one of these vehicles was illustrated in MRJ No. 2.

