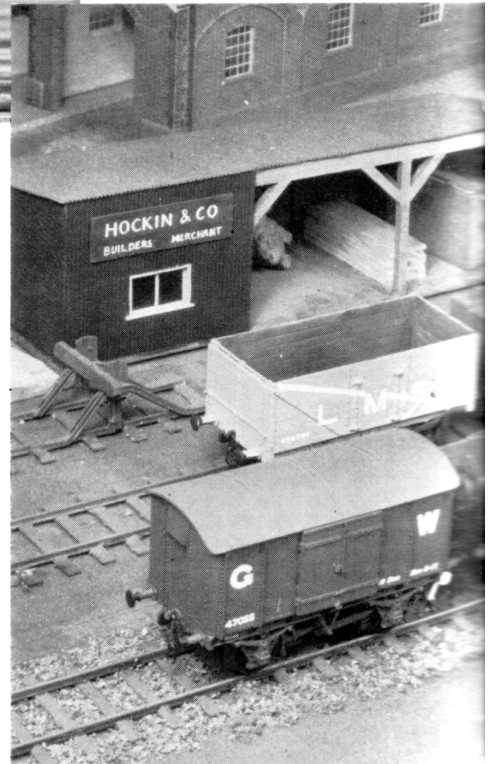


MODEL GOODS STOCK

Looking mainly at the solebar and below

by Peter Samuels



Until a year or so ago I thought that a representative collection of goods stock for my layout, based on the Western Division of the Southern railway in the 1930s, should contain about 50 per cent SR vehicles with the remainder divided among the other three companies, with PO wagons in addition. Also I thought that open wagons and vans would be in about equal numbers. Excellent articles on wagon distribution in this and other magazines show how wrong I and many others were. The need is for far more LMS and LNER vehicles and for far more open wagons, and the photographs illustrating this article show the beginnings of my attempts to redress the balance. I have begun mainly with the LMS and left the LNER until the Methfix transfers for the goods stock of that company become available*.

Most modellers insist that their locomotives shall have livery modifications and rebuildings all correct and consistent for the period modelled and they take care to find a photograph of the particular locomotive. Most of us become quite knowledgeable about the locomotive practice of our chosen company, but only of that company and not of all the others. If you like wagons and want each one of a varied collection to be an accurate model then you need to know about the wagon building practice of a large number of companies. Of course wagons are much simpler than locomotives, so the task is not so daunting as it might appear, but there are

still no short cuts. One needs, first, access to back numbers of the magazines. There one finds many hundreds of drawings, enough to keep one occupied for years. Published wagon photographs are fewer in number, no doubt because until recent years few enthusiasts turned their cameras on the humble wagon. An exception was Mr G. Y. Hemingway, whose splendid collection of rolling stock photographs has been made available to members of the Historical Model Railway Society. I have learned a tremendous amount from these. They were taken in 1936/37 and show what pre- and post-grouping rolling stock really looked like at that period—much

*P.C. Methfix Sheet E5 LNER Freight Stock is now available.—Ed.



Heading photo: Ex-MR dropside wagon 13615. Ex-LNWR open wagon 225139. The shape of the brake levers betrays the origin of these wagons as also the headstocks of 225139. I hope there will soon be castings available for the distinctive lop sided LNWR Buffers. Above: Ex-MR wagons 95868 and 20261. This is the later Midland design. Buffers are ABS LSWR-type (just right for the MR). Axleguards are K's and brake gear Kenline 10ft wheelbase shortened to suit the 9ft 6ins wheelbase. Notice how the Midland did not always use very short brake levers.

A selection of six completed ABS kits. GW Iron Mink. GW 10ft fitted open. SR standard 8 plank open. LMS 7 plank mineral. LMS 5 plank open. SR ex-LSW Gunpowder Van.

dirtier than my models. I must improve my weathering! They show the atmosphere and character that must be captured in a model.

So what distinguishes one wagon from another? Size, livery and body details are certainly important, but so is what goes on below the solebar. Buffers differed in shape, axle boxes came in infinite variety, springs varied in length and had different hangers, and as for brake gear, a whole book could be written on it. All these things gave wagons their character, and it is well worth taking trouble to get them right. I do think it is a pity when a nice wagon body is put on an unsuitable chassis from a plastic kit because the builder is unaware that something better is available. So much more is available now than ten years ago when I built my first wagon. It is not available in every model shop, and my main purpose is to give some idea of what can be found, and to set you searching. The usual disclaimer applies to all firms and products mentioned.

Commercial Kits

I like scratch building and most of the illustrations are of scratch built models, but I see no merit in going to all that trouble when a really good kit is available. Not all kits come into that category, either because of poor quality of parts supplied or lack of fidelity to the prototype. There are several real horrors about. However, the Peco, K's and Ratio ranges are well known and widely distributed, and most modellers find useful items among them. The most recent range is the ABS series of white metal wagon kits and it is possible to recommend them with complete confidence. The quality of the castings is superb and the detail amazing. The weight is

Scratch Building

So to scratch building we return and no matter how the range of kits grows there will always be a place for it. I like to build entirely in styrene sheet, solebars included. The only addition I would like to make to the excellent articles in this magazine on the techniques needed is to say how useful I find a pair of vernier callipers to ensure that floors sides and ends really are the length and width they are supposed to be and not 0.25mm over size.

Apart from wheels and couplings one is then left to buy axleguards, buffers, brake gear parts and possibly vacuum pipes, all in white metal castings. I have made use of parts by K's, Kenline and ABS. Now, where do you get these little packets of bits and pieces? I have found good stocks in Kings Cross Models and Eames of Reading, Hodgsons of Whitton, Mdx and Hobbytime of West Wickham. I hope there are other places but I have not found one near Manchester.

Axleguards are the most important castings. The K's and Kenline ranges have been available for many years. Particularly useful in the former are the GWR's long spring type with 'J' hangers (for many types of brake van) and the MR type (used on the LMS). The Kenline short van axleguard and long van axleguards have many uses. The ABS range is expanding rapidly and already includes the best available RCH type, also GWR, LNER, LSWR and LBSC types. These often cover more varieties than the label suggests; thus the ABS LSWR brake van axleguard is just right for LNWR and MR brake vans. The use of a file further extends the range, the LSWR one being particularly adaptable.

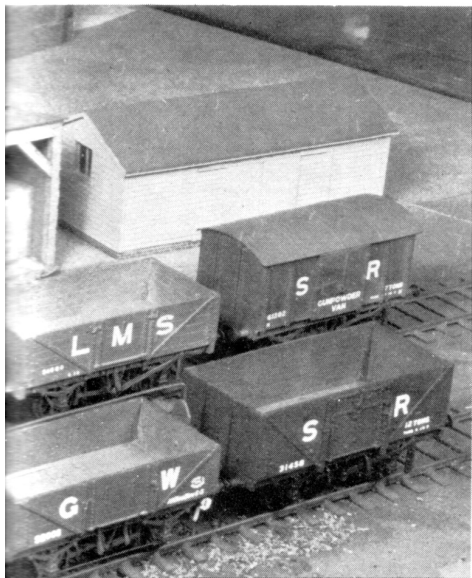
Quite a number of fitted wagons and vans need 14mm wheels and it is impossible to use axleguards designed for 12mm wheels.

The vehicle will sit too high. The ABS range will soon include suitable axleguards, but until now I have found that the best solution is to shorten the springs on the K's LBSC coach axleguard.

For reasons of durability many modellers prefer to stick to turned brass buffers which K's provide. For castings we go to Kenline and ABS. The latter provide the greatest variety but still there are many gaps, notably the LNWR lop sided type and the GNR, GCR type. However, we now have the GWR varieties and the longer buffers used with screw couplings.

Brake Gear

Now we come to brake gear, about which I suspect I have a 'thing'. Kenline do 9ft, 10ft and 11ft wheelbase sets, pairs of brake shoes for clasp brakes and useful packets of spare V hangers and brake levers. The limitation with their brake gear sets is that they can only be mounted satisfactorily one way round. Looking at the side of the wagon the left hand push rod points down, the right hand push rod points up. This is correct for either side independent sets with lever and two brake shoes each side, or for one side only brakes (commonly fitted before grouping). Such brakes normally had two V hangers each side. Many vehicles had some form of Morton brake in which there were usually two brake shoes on one side of the vehicle only, with a lever each side, one side with a clutch or lifting link, and a cross shaft between the V hangers joining them. The brake shoes were usually on the same side as the clutch and so looking at the side of the vehicle the left hand push rod should point up and the right hand point down. To make this possible one has to go to work on the Ratio and Kenline brake gear with a file and the result is only partially satisfactory.



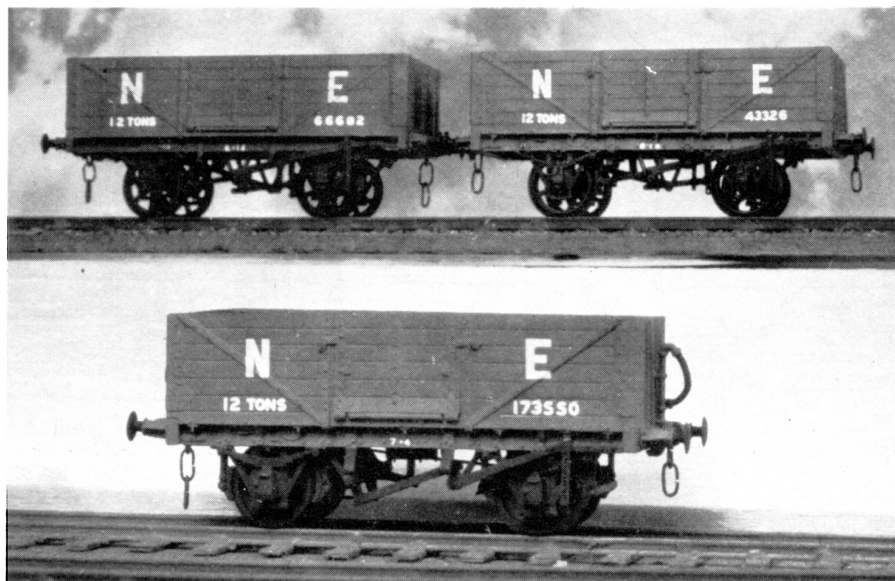
Left: Two SR ex-LSWR open wagons 61633 and 7417. The underframe details may look fairly standard but the self-contained buffers on 61633 had to be turned specially and the unusual position of the brake safety loops on 7417 should be noticed.

Below: Can you tell Stork from Butter? LNER open 66682 is actually scratch built, finished just before the ABS kit (No. 43326) became available. (I would have waited for the kit had I known it was coming).

"Ofit" No. 173550 is another ABS kit. The brake gear castings are particularly fine.

less than with previous white metal kits and the research into the prototypes that lie behind them is very thorough. The series contains those open merchandise wagons of which most of us are so short. At the time of writing there are three GWR types, two LNER, one LMS and two SR types as well as seven and eight plank mineral wagons, LMS and GW vans and rarer birds besides.

The scope for kit bashing is less with wagons than with locomotives. The ABS range provides some scope, indeed conversion kits are available. The Ratio LMS van offers many possibilities and the underframe (available separately) is very useful for later LMS wagons. The Airfix BR brake van can be turned into a very good LNER express goods brake, but the list soon ends. For example it seems to me that the Airfix cattle truck converts only into a very approximate version of the GWR vehicle. Other conversions are so drastic that it is really better and easier to start from scratch.



The ABS brake gear sets can be mounted either way round, which is a great advantage but at the time of writing only 9ft wheelbase is available. However, 10ft is on the way and the range already includes such tricky items as the Dean and Churchward brake gear and the LNER vacuum brake gear. 9ft 6in. and 10ft 6in. wheelbases are quite common, and it is worth pointing out that a couple of saw cuts in the push rods and a touch of low melt solder will reduce Kenline 10ft and 11ft brake gear by a sufficient amount to fit. I do most of the assembly of brake gear with quick setting epoxy with low melt solder here and there. For wheelbases longer than 11ft it is necessary to make one's own push rods and brake levers. 1mm square brass is obtainable and can be used with Kenline or ABS brake shoes. Another useful material is wire beaten flat. One can get the taper on brake levers in this way. This is not so quick as dropping a casting into place but even when a really long wheelbase set comes out there will still be items such as the weird L&Y brake gear and others with off centre V hangers for which a little bit of scratch building will be needed.

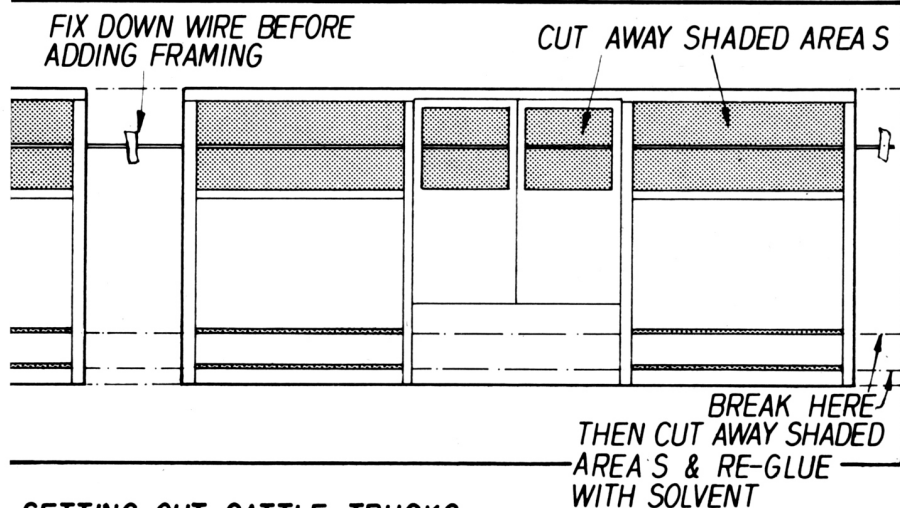
Wagon brake gear is a subject for which study of photographs is especially rewarding. Pre-grouping vehicles frequently had their brake gear brought up to date after 1923, and most published drawings show them in their original state so it is important to know just how they were up-dated. Axle boxes often changed too. Other small items should be looked out for; brake gear safety loops, door bangers, horse hooks, label clips, number plates, either original or LMS, LNE or SR replacements, and crown plates. An attempt should be made to reproduce the hefty bolt heads found on the solebar. If these are missing, character is lost.

Cattle Trucks

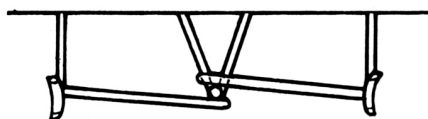
Most of us have cattle docks on our layouts and want to run cattle trucks, which did not often run singly. Kits are few and they are difficult vehicles to make, yet I cannot recall reading anything helpful about them. The difficulties are the large amount of open space at the top, the keeping of the iron bars straight and parallel and the gaps between some of the lower planks. All these openings tend to make them flimsy.

On the prototype, planking was usually about 1½in. thick and framing 4in.-4½in. square. So I mark out the complete sides with at least 10mm spare all round on a sheet of

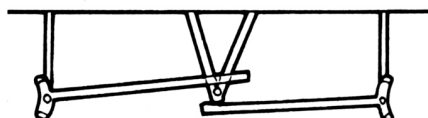
0.020" PLASTIC SHEET



SETTING OUT CATTLE TRUCKS

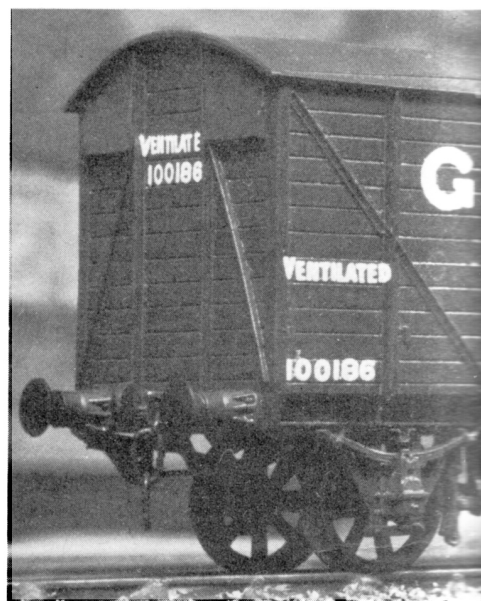


PUSH RODS ON EITHER SIDE INDEPENDENT BRAKE GEAR

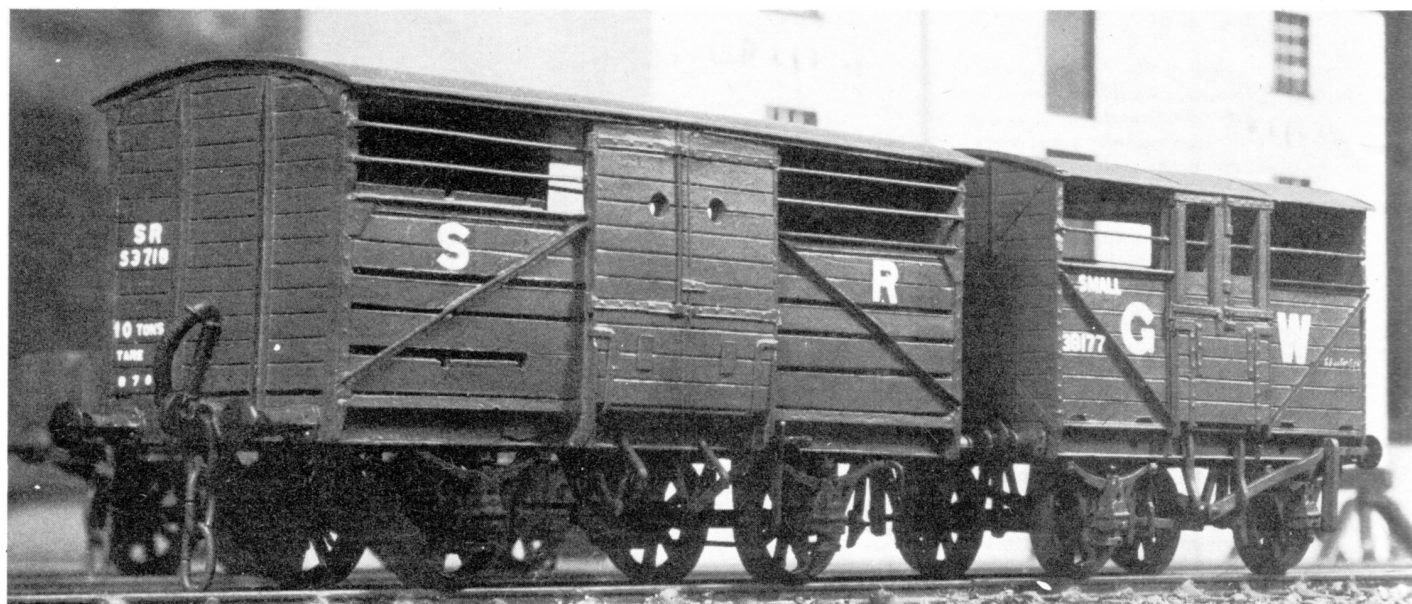


PUSHRODS ON MORTON BRAKE GEAR WHEN THE BRAKE SHOES ARE ON THE SAME SIDE OF THE WAGON AS THE BRAKE LEVER WITH THE CLUTCH

20 thou. plastic. I mark the planks and the gaps between planks and score them in. I break the side along the line marking the lower edge of the gap between the planks,



SR cattle truck 53718 is an early effort and shows how difficult it is to keep cattle trucks square! Axleguards are ABS. The SR vacuum brake gear is one of the more difficult scratch building jobs. GWR small cattle truck 38177. This tiny vehicle is a type full of character. All castings are ABS. The wheelbase is only 8ft 6ins but the ABS 9ft wheelbase brake gear kit is easily shortened.



Below : GCR van 537974. Satisfactory GCR and GNR buffers are almost impossible to produce from available castings. The lifting link brake gear is modified from Kenline parts.

Right: Ex-LSWR cattle truck 51915. This is a fairly typical large cattle truck, except that the movable partition slides on the lower iron bar, hence the vertical strut. The Kenline 11ft wheelbase brake gear requires only very slight shortening to fit the 10ft 6ins wheelbase. Ex-LSWR 10ft ton goods brake (road van) 56056. This is an early effort and more suitable axleguards are now available. It was lettered in the days before Methfix transfers.

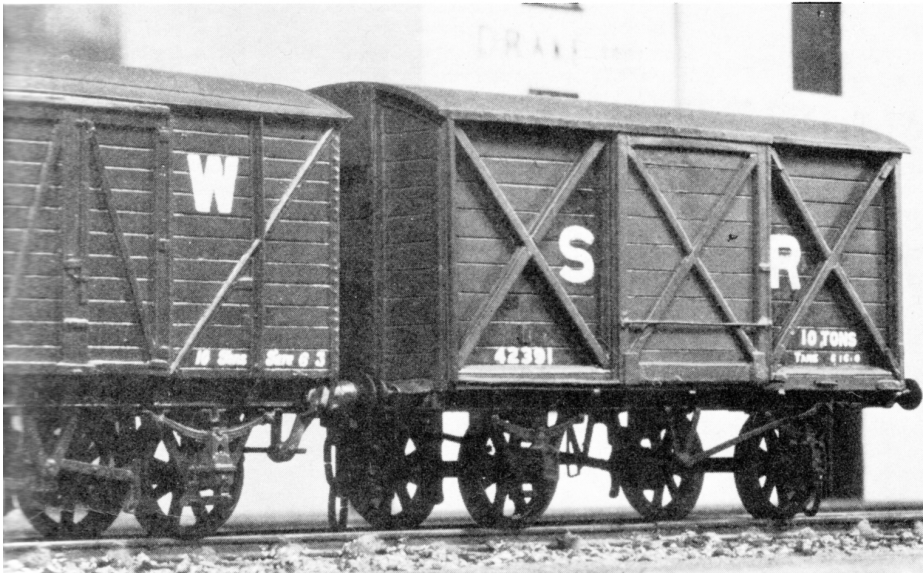
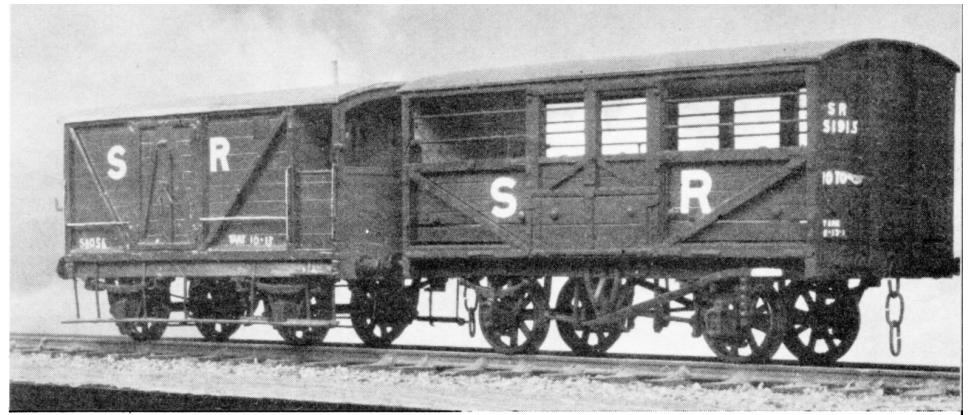
and then cut away the gap where it shows, i.e. not behind the doors, the end uprights and the spare piece left round the side. I stick the side together again, and break the side, and cut away the next gap between

planks as necessary. After cutting out the open spaces at the top, the doors and framing (1mm thick) can be built up. Where the iron bar or bars come a groove can be cut in the framing and wire sandwiched between it and the 20 thou. backing. The spare 20 thou. is trimmed away when all is set hard. I find it much easier to proceed in this way rather than to build up the side with separate planks which have a nasty tendency to curl. The result is stronger and more accurate. End planking was also about 1½ in. thick, but it is better to use a 40 thou. end for strength. It hardly shows. If there is a gap in the end planking, build up the end with two layers of 20 thou. with the gap in the outer layer only.

Gaps going right through the end as well as the side are too weakening. A flat false roof is also a strengthening feature and does not show from the normal viewing angle.

Some cattle trucks are especially difficult, e.g., the LNER and GNR types without upper doors to provide strength, the innumerable gaps and peculiar end framing of the Midland variety and the iron bars fixed on the outside of the frames of the standard LMS variety. Cattle trucks are a challenge, however, and repay the efforts of the scratch builder. The same technique of building up on a large sheet of 20 thou. and cutting to final size after the framing has been built up is useful for outside framed vans and brake vans, but with these it is not necessary to break the sheet for gaps in the planking. Notice, by the way, that on outside framed vans the door planking is not usually on the same plane as the body planking, and the door framing is shallower. A piece of 20 thou. is stuck on to the original 20 thou. side, scribed for the door planking and then the door framing is built up in 20 thou., the main framing being in 40 thou.

As a final point, I wonder why more railway modellers do not use the stretched sprue technique familiar to aircraft modellers. Wire door bars, for example, are not easy to fix firmly to a plastic body, and plastic rod is available only in a limited range of diameters. You take a piece of sprue from a plastic kit, heat the middle over a candle flame until it is soft and then stretch it into a thin filament. It takes a bit of practice to get the knack but in a few minutes you will have several feet of rod of a great variety of diameters. It is not strong; you would not use it for tie rods between 'W' irons for instance, but I find it has many uses in less exposed places.



Top left: G Wooden Mink 100186. Castings for buffers, axleguards and Dean and Churchward brakes are ABS and very nice too. SR ex-LSWR Van 42391, ABS axleguards. The lifting link brake gear is mostly scratch built. The LSWR was unusual in often using outside V hangers with this type of brake with a third V hanger on the centre line of the vehicle.

Left: LMS fitted open wagon 400231 has Kenline buffers, axleguards, brake shoes and levers, the rest of the rigging being of wire. SR ex-LSWR open No. 894S has an interesting variant of the GW Dean and Churchward brake. The parts for this and also the axleguards are ABS.

Bottom: LMS vans 500714 and 501086. The Ratio kit is of the 1938-39 version, but is easily modified for earlier versions that appeared in the grey livery. Remove the cover strip above the top door runner and insert a new piece with the planking inscribed and the right hand channel section continued to the top. For unfitted vans the either side brake gear supplied should be modified to the Morton pattern as on 501086. Fitted version 500714 has a scratch-built underframe with Kenline castings.

