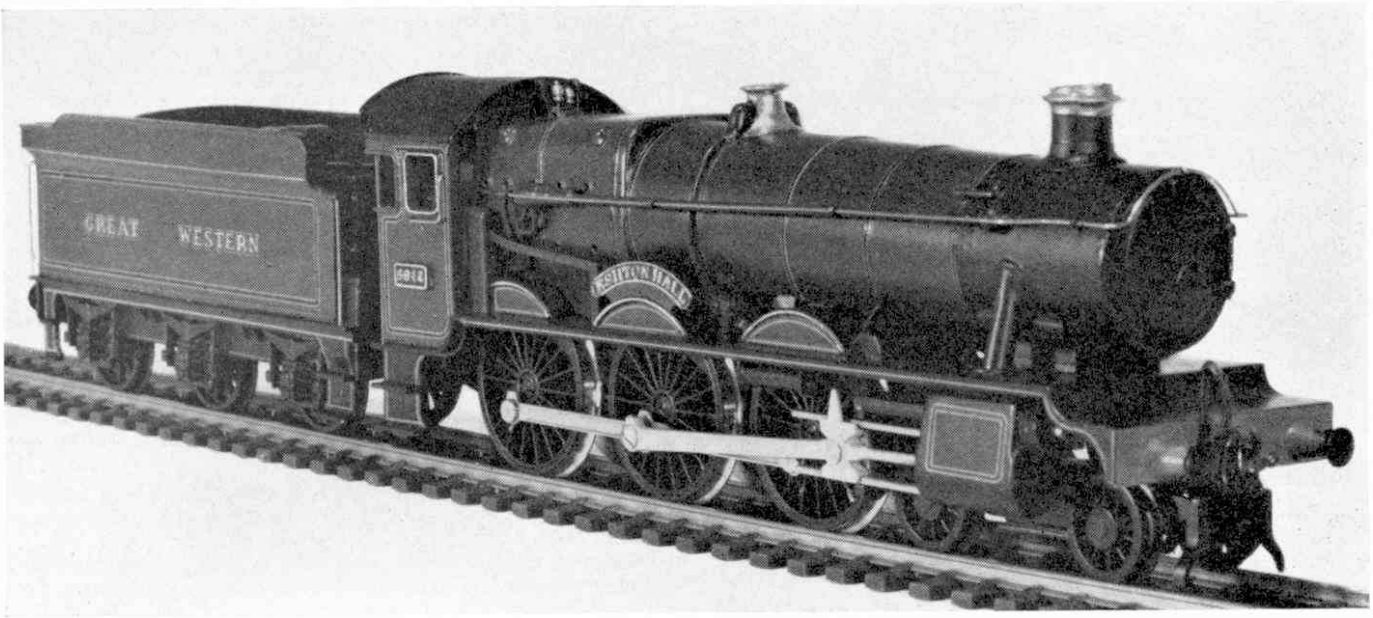


A fine model of the Wills 'Eshton Hall' fully painted and lined out.

Locomotive Kit construction

by **Linesman**

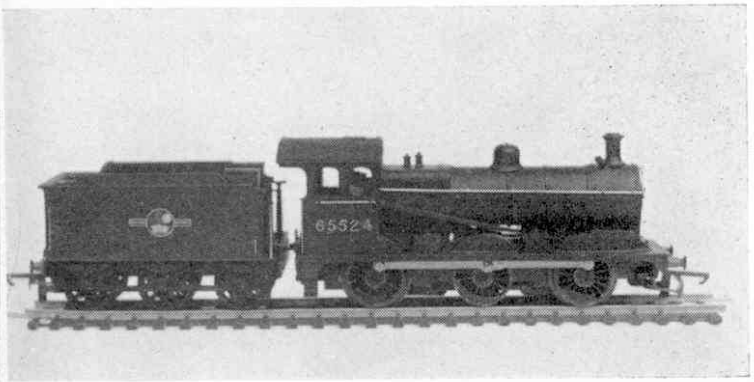
LAST month, I dealt with the assembly of the different types of white metal kits now available to the enthusiast. The final task, and one which I want to discuss now, is the finishing of the models, including the rather difficult task of painting and lining.

Before the painting or lining of a kit is attempted, its surface should first be cleaned. This can easily be achieved by rubbing down with an old toothbrush dipped in a stiff solution of Vim and water. This removes any impurities from the casting and allows the paint to spread more evenly. The solution of Vim should later be removed by dipping the model in a bowl of clean water. This will then probably reveal the small gaps between the parts of the kit which have to be 'filled'. The filling compound, once dry, should be rubbed over with emery paper so that a smooth and even surface can be provided for the final painting. Only the finest grade of emery paper should be used to clean the surface of the castings once the model has been assembled.

Emery paper makes tiny grooves in the surface of the casting which help to 'key' the paint to the metal and prevent the paint from peeling. In most cases, the final livery of a model will vary according to whether it is painted in pre-nationalisation, pre-grouping, or British Railways' colours. A simple case in point is the K's Kirtley goods locomotive which, if painted in its original Midland Railway livery, would have a basic colour of Midland red, edged with black, with a fine straw line on its inner edge. Its boiler bands would be painted black with fine straw lines on either side.

The same locomotive painted in London Midland and Scottish Railway colours would have a coat of matt black with red buffer beams, with L.M.S. transfers. The British Railways' livery for this locomotive is also black with, of course, the British Railways' emblem. You will see, therefore, that more skill will be needed to paint this particular locomotive in its pre-grouping livery than in British Railways' or L.M.S. colours. It is usually pre-grouping colours that confuse enthusiasts, because of the ornate bordering and lining that such locomotives had.

The Bec OO gauge L.N.E.R. J17 kit painted in British Railways' livery with B.R. numbers.



What you will need

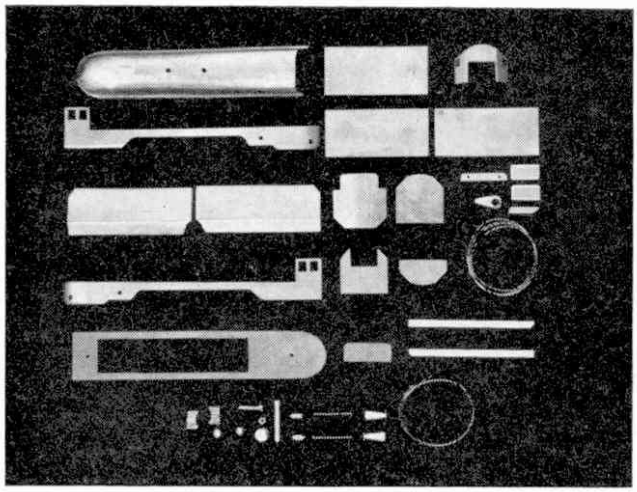
The instruments and materials needed to paint most locomotive kits should include a draughtsman's lining pen, for painting the fine lines often found in pre-grouping and pre-nationalisation locomotives. Spring bow compasses and a mapping pen will also be found useful for this operation. Suitable sizes of paint brush for bordering and for painting on the basic colour, are camel hair brushes Nos. 0, 00, 1, 3 and 4. The colours will, of course, vary according to the locomotive period and livery, but in general, the pre-group liveries may call for colours not readily available and it may be necessary to mix them yourself.

Oil paints currently available and suitable for the purpose are produced by Humbrol, Rocket Precision, Bonds, C.C.W., Windsor and Newton, and E.A.M.E.S. Joy, O'My and Pucka produce cellulose enamels. Water colours are sometimes used for lining locomotives and are manufactured by Reeves and by Windsor and Newton. Joy and Pucka produce cellulose oil thinners for their paints and Humbrol manufacture oil thinners suitable for the different varieties of oil paint.

In all cases, irrespective of the period the locomotive is to represent, the basic colour is applied first, either with a brush or a spray. Since spray painting requires a technique of its own, I will deal with that later in the article.

Golden rule

Using a fairly large brush such as a 3 or 4 camel hair brush, I would suggest that two thin coats of paint be applied. This is



Parts of the E.A.M.E.S. 'Coronation' class Pacific locomotive kit. All parts are stamped out of nickel silver sheet or brass.

far more effective than one thick one. A technique that can usually be relied upon when applying the first and subsequent coats of paint is to brush the paint in one direction only—usually in the longest direction—the tank's front cab to the smokebox; the cab roof, from side to side and so on. The boiler, however, should always be painted round its circumference, since this seems to emphasise its curvature.

The golden rule of painting any model is never to return to parts on which the paint is still wet; always wait until the paint has dried and then apply another coat. It will be found that the first coat, if properly applied, will not cover the surface of the model very adequately. In fact, supposing that black is the colour of the model, it will be found that the paint will have a greyish look, because of the sheen of the metal showing through.

Only a small area of the model should be covered at any one time and only small quantities of paint should be used on the brush. The paint should always be spread as thinly and as evenly as possible, so that the risk of small blobs collecting and obscuring detail is reduced to a minimum. Subsequent coats of paint should be applied only when the preceding coat has dried completely and equal care should be taken in applying all subsequent coats. If one of the jelly-base paints is used, only two coats will be necessary, but if a thinner type of paint is applied, three or four very thin coats would be preferable to two thick ones. Care must be taken at all times to ensure that no paint clogs up the detail on the castings.

If a spray gun such as the 'Celspray', which is sold at most model shops, is available, the paint should be thinned down to a consistency that allows a very fine spray to pass from the gun. Because of this, it will probably be necessary to give the locomotive three or more coats of paint. When spraying the model, the gun must be passed from left to right, squeezing the rubber bulb supplied with the gun as the spray is moved. If a foot pump is fitted, the pedal must be pressed when the spray gun is moving. If the spray gun is used in this manner, blobs that usually hide the detail on the model do not have the opportunity to form.

Attractive finish

A more attractive eggshell finish will result if a cellulose-base enamel is used on the model, but none of these paints are supplied in a matt finish and if you want a finish of that type, you will need to give your model a coat of matt varnish when it has dried.

One advantage of using cellulose paint is that subsequent lining can be done with oil paint, which is easily removed if any errors occur. In most cases it will be found satisfactory to spray the model at a distance of approximately eighteen inches, so that only the finest spray mist covers the casting. If the paint becomes too 'watery', because of excessive thinning, the result may well prove disappointing, so I would suggest that you experiment a little to discover the right consistency of paint and thinners.

Different paints have different textures, but working by rule of thumb, I would suggest a mixture of three parts thinners to one part paint, if a spray is used. This will not apply to jelly-type paint which will require much greater thinning. Cellulose and oil paints *must not be mixed* and the two types of paint must not be applied in alternate layers, since the cellulose paint shrinks and would thus cause the oil paint to peel and crack. Oil paint can be applied on top of cellulose, but it is very unwise to apply cellulose on top of oils.

If the model is to be painted in a pre-grouping livery, you will probably find that the side tanks or cab sides have borders of a different colour to either the lining or the locomotive. Borders should be painted with the finest brush available and I would recommend the use of water colours, since they can easily be wiped off if mistakes are made. If the water colour mixture is excessively thin, however, the bordering will be very indistinct.

Linings are sometimes found at the edge of borders and sometimes are entirely separate from them, although there are many cases where lining is applied to both the border and the insides of the locomotive tank and cab side. A draughtsman's lining pen can be used for straight lining and a spring bow compass for sections that follow curved contours. Where boiler bands and other items on a curved surface are to be painted, I would again recommend the use of a very fine brush.

An alternative

As an alternative to water colours for lining and bordering, oil colours suitably thinned down for the purpose can be applied. If a cellulose paint has been used for the base colour, oil colours can be introduced for the lining.

Finally, I want to mention a type of kit which I intend dealing with more thoroughly at a later date. An example from this series of kits is illustrated here and you will notice that the parts are produced, not in the more usual white metal, but in nickel silver. Rather more skill is required in building this kit than in assembling other kits and a knowledge of soldering is essential. The parts are all stamped and shaped from nickel silver sheet, which should be soldered together in the appropriate places.

The parts illustrated form a kit for a model of one of the 'Coronation' class Pacific locomotives of the London, Midland and Scottish Railway. The kit, when built, fits on to a Hornby-Dublo 'City of London' chassis to give a most effective addition to any two-rail model railway.

At the top: The K's OO gauge L.N.E.R. J72 kit painted and lined out in the appropriate livery. *Below and to left:* K's J50 kit partly finished in British Railways' black. *To the right:* Gem TT gauge 'Collet' tank kit which is painted in Great Western standard green. *Bottom:* The Gem L.N.W.R. 'Prince of Wales' 4-6-0 kit, TT gauge.