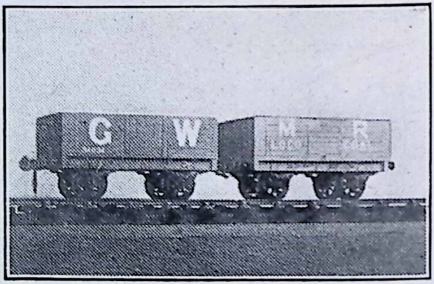
Building a Model Railway Wagon

By W. J. BASSETT-LOWKE, M.Inst. Loco. E.

FROM a constructive point of view an ordinary model railway wagon of the open type has nothing about it which necessitates much description, once the overall sizes are drawn out and the metal parts have been obtained. The body of an open truck is simply a box on wheels, but as most model railway owners will not stop at one vehicle, a speedy method of building the bodies may very profitably be considered.

The ordinary 10-ton open wagons have bodies of more or less standard length and width. Heights may vary, but for model railway purposes these may be standardised into two dimensions, one for high-sided trucks and the other for low-sided vehicles. The two sizes are therefore included in the general arrangement drawing herewith, on the two half-views shown. The dimensions of all small wagons are given in millimetres, as this is the most convenient measurement for the smaller models. Fractional inches become very complicated, when 64ths have to be dealt with. The scale of the model is 10 mm. (1 centimetre) to the foot, and the gauge the standard No. 1 size, i.e., $1\frac{3}{4}$ inches between rails.



The type of Model Wagon dealt with in this article

The components of the superstructure are as follows:

Two ends of 4 mm. wood, planed and planked on outside.

Two sides of 3 mm. wood, planed and planked on outside.

One floor of 5 mm. wood, planed.

Two solebars of 7 by 10 mm., planed strip wood.

Two headstocks of 10 by 10 mm. planed strip wood.

Four end battens of 4 by 4 mm. planed taper strip wood.

The planking is accomplished by scribing lines with a knife-edged tool on the surface of the planed wood.

The metal parts required comprise:

Two pairs of wheels on axles.

Four axleguards.

Four buffers; and

Two sets of draw-hooks and chains.

Other metallic embellishments, viz.: corner plates, strappings, washerplates, etc., may be added if desired, but where a large number of wagons are required it is usual to represent these in the painting process.

Having prepared the pieces of wood necessary to make the body exactly to shape

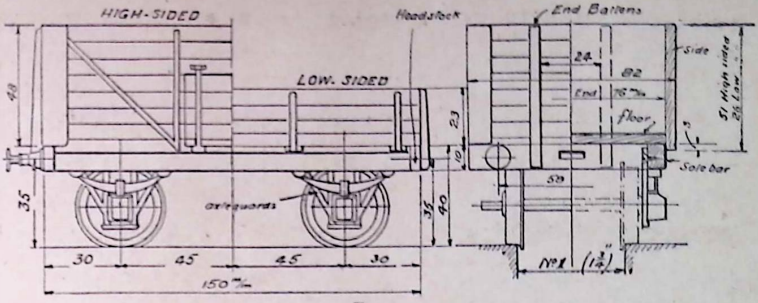


FIG. 1

and size, the next thing, preliminary to building up the parts, is the making of the building jig (Fig. 3). On a piece of ¾ inch or 1 inch planking—or directly on the bench, if needs be—a rectangular block of wood the same size and shape as the inside of the wagon-top may be securely fixed. This jig-block may be oiled and wiped dry so that the glue or seccotine used in jointing the sides and ends will not adhere to it. For high and low-sided wagons two such blocks will be required.

The wagon bodies are built upon this jig upside down and when glued and primed together, the model is lifted off complete. The nails used are very fine "panel-pins" of a thickness and length suitable to the size of the wagon being made. The sides and ends are wrapped round the jig first, with the floor inside them, this resting on the top of the block. When secured together, the headstocks and solebars (See Fig. 2) may be fixed to the floor. The latter members may be placed in position temporarily while the headstocks are permanently attached to the floor, and then removed so that the axleguards which are screwed on to the inside then are positioned and affixed. When this is done the solebars may be finally fixed down with the wheels and axles in their proper places.

If any tendency to split the wood is observed in driving the pins into the wood—the nature of the material will have a lot to do with this—then holes should be drilled previous to driving the nails. This may be done by drilling, or with a specially fine bradawl.

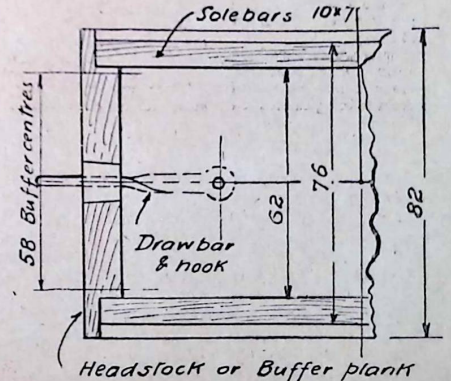


FIG. 2

The end battens may be fixed by gluing only before removing the body of the truck from the jig block or at a subsequent stage in the operations, according to which is most convenient.

The buffers are screwed into the buffer planks (headstocks) in the positions shown by the dimensions on the drawing. These

fittings are usually cast with screwed shanks.

The headstocks must be pierced for the drawhooks, and in fixing the same a certain amount of side-play should be allowed on the pivot in the shank of the drawbar. The type of drawhook with the straight coupling-link is to be preferred, although the orthodox hook and three-link chain may be employed if the curves of the line are all of very large radii. The straight link coupling is arranged to provide for the pushing of the coupled vehicles through this link instead of through the buffers. Scale size buffers are apt to "buffer-lock" on the sharper curves of a model railway, and have led to the introduction of this "pull or push" type of coupling.

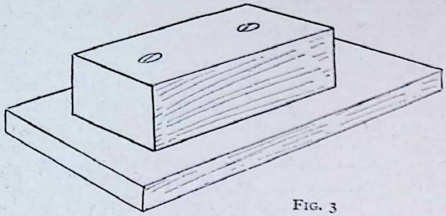


FIG. 3

To obtain the best finish on a wagon the surface of a body should be primed with a lead colour or one of the "patent fillers" known to the decorating trade, and when thoroughly dry rubbed down with glass-paper. The final painting may then proceed, a flat colour (paint ground in turps instead of oil) being used. The corner plates, strapping, and other metal work may be lined in with black paint, and the lettering painted by hand or transferred. Transfers of the standard initials of the various railway companies are obtainable.

The Official Colours of the Great Railway Groups

No doubt many readers of the HOLIDAY ANNUAL will be watching with interest the new colours of the locomotives and rolling-stock now that the railway companies are grouped into four different groups.

Below is a list of the colours which have been officially adopted by each group, and the work of repainting the locomotives and rolling-stock of the old companies to conform is being carried on steadily.

L.M.S. GROUP

THE LOCOMOTIVES to be the old M.R. Lake, the only alteration being that the new L.M.S. crest will be on the cab side instead of the M.R. crest.

THE COACHES of this group to be the standard Midland colour, the only alteration being that instead of the word "MIDLAND" under the eaves of the coach, the letters L M S will be put on the "waist" of the coach, and, in the case of the diners and sleeping cars, the company's crest in the lower panel in the centre.

THE GOODS LOCOMOTIVES to be black, with white numbers, and all goods rolling-stock a light lead colour.

L.N.E.R. GROUP

This group has adopted green for its passenger locomotives with black and white lining, with the letters L. & N.E.R. on the tender and the number underneath.

THE COACHES will be finished in standard teak colour, these being uniform with the old Great Northern, and a very attractive new crest has been designed.

THE GOODS AND TANK LOCOMOTIVES to be black, as the other groups.

G.W.R. GROUP

These are maintaining their standard green colour for their LOCOMOTIVES with practically no alteration, and the PASSENGER COACHES have gone back to their attractive chocolate and cream colours of pre-war days.

THE GOODS VEHICLES will be lead colour a slightly darker shade than the L.M.S. group.

SOUTHERN RAILWAYS

These have decided on green for their LOCOMOTIVES, with black and white lining, and the words "SOUTHERN RAILWAYS" and the number on the tender. The GOODS LOCOMOTIVES will be black with white lettering.

PASSENGER COACHES will be green, with black and yellow lining, and the GOODS VEHICLES will be brown.