

# Book Review

# Ephraim

Peter Scott

Anyone who has built *Ellie* will recognise this publication from Camden books and it follows the same format. *Ephraim* is described as a simple freelance steam Shay locomotive for 45mm gauge. I cannot see why it would not run on 32 mm track, making it dual gauge. The model is loosely based on a class B type but there are a number of modifications to make it easier to build.

The drawings are very clear and all the dimensions seem to be there. On some occasions you have to read the text to discover the size of the bar stock. There are lots of photographs of the build which are very useful and well reproduced. The text is clear and concise with some excellent explanation of the methods used. There are a

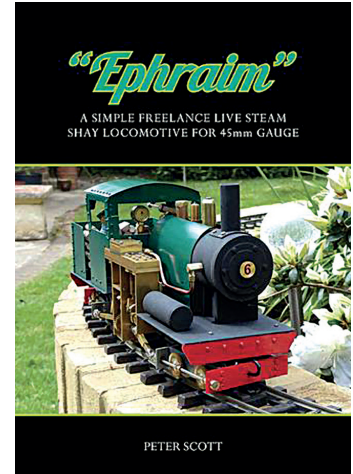
number of holes in the motor which have to be in the correct position. Peter shows how he made a jig to achieve this.

A feature of the book is how the author describes methods of testing the parts you have made to ensure they are going to work. I think this is a very good idea as there is nothing more frustrating than spending hours making a part only to throw it in the bin as you test it.

The motor is three-cylinder, single acting and omnidirectional and the author goes to great lengths to explain how to make this. He makes use of his miller which is equipped with digital read out. If you do not have one of these, fear not because Camden are going to produce a set of laser-cut parts just as they did for *Ellie*. This reduces the build time considerably and ensures the final model looks and works well.

One unusual feature of the motor is the rotary valve, which makes it much easier to build; otherwise three sets of valve gear would be required. Peter explains in great detail how to make this so even the beginner should not be overawed. Camden will be able to supply a brass kit to make the motor plates which are the difficult parts - the rest is simple turning. Much of the engine comes from stock material which should mean your 'will be useful one day' box comes into its own.

A feature of the Shay is of course the Cardan shafts. For these Peter has used easily obtainable universal joints and square brass tubing. A number of parts have to be sourced for the locomotive, for instance the bevel and spur



gears. There are a number of suppliers of these on the Internet at reasonable prices. It really is a feature of the design that outsourced parts are easily obtainable from various suppliers, keeping the cost of the model low.

The pot boiler is almost the same as *Ellie*, the main differences being that it is higher and all the bushes are on the top. Firing is the same, using methylated spirits and a four-wick burner. I am sure it would be easy to convert it to gas for those who do not like spirit fired boilers.

There is not a lot of plate work on a Shay so if you don't like plate work this could be for you! What is there is easy to make and looks fine.

It is a freelance model so do not expect it to be to scale. However, it does look the part and it would be easy to add your own detail if required.

If you have built an *Ellie* this is an obvious next step. If Camden can supply parts as they did for *Ellie* it should be a quick build, guaranteed to run well and give you hours of pleasure. Peter Scott's book is an excellent place to start that next project.

Malcolm High

