DCC CONCEPTS
LEGACY POINT KIT

Phil Parker tries the first of a new line of pointwork and track products from the Australian supplier.

A completed Legacy turnout and brass roller gauge (foreground).

SHOPPING LIST
- DCC Concepts: Sleepers, two yards of stainless steel rail, Sapphire 179 solder
- **W** www.gaugemaster.com and stockists nationwide, see www.dccconcepts.com
- **T** 01903 884321
- Brass pins
- **W** www.eileensemporium.com
- Powerflow flux
- DIY and hardware stores

Building your own track is one of those jobs that - at first - appears to be some sort of black art. There are arcane terms to master, special gauges are needed and when things don't go right, the builder often incants strong words at their workbench!

Despite this, trackbuilding can be fascinating and very satisfying. For a start, it's often cheaper than buying ready to lay. More importantly, you can have the track you want, not what someone has decided to manufacture.

The easiest way to start is with rail soldered to printed circuit board (PCB) sleepers. Soldered joints can be made and unmade quickly and easily so the builder can adjust the position of each rail if things aren't running properly. Every layout I've built this way has involved several hours of tweaking to achieve smooth running.

Traditionally, the materials used are copper-clad strip which has to be cut to length for the sleepers and then some of the copper cut away to insulate the opposing rails. DCCconcepts has developed this with sleepers supplied at the correct length and with tinned pads only where the rail is to be fixed, saving time and making the wiring process easier.

Another first is the use of stainless steel rail. Normally we use nickel-silver which isn't the right colour for real trackwork and is easily tarnished, contributing towards conductivity and adhesion problems.

PCB track isn't perfect; there's no representation of rail chairs and the rail isn't raised above the sleepers but it is the easiest way into track building and when your first wagon glides through a point after a couple of hours work, it's great fun. **BRM**
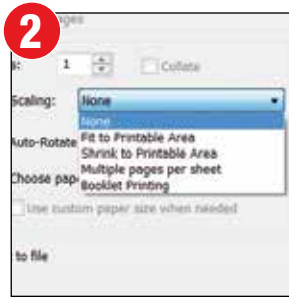
POINT TERMINOLOGY

- Stock Rails
- Switch Rails
- Frog/Crossing
- Check Rails
- Tiebar

1
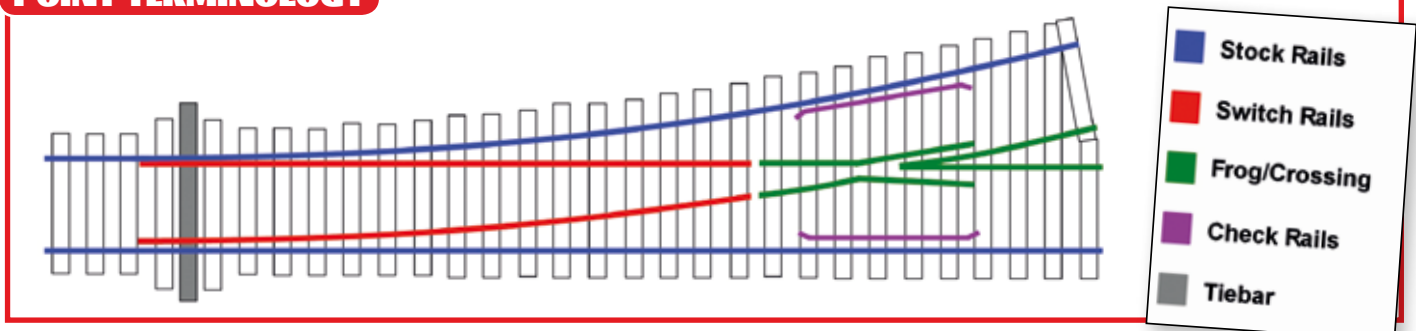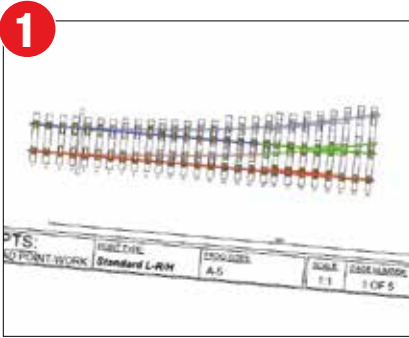
Plans for points can be downloaded from the DCCconcepts website. If you prefer to plan using Templot software, this can also be used as a guide.

2

The DCC plans must be printed out with the page scaling set to 100%. If you let the computer print the entire page, including the borders, the plans are too small.

3
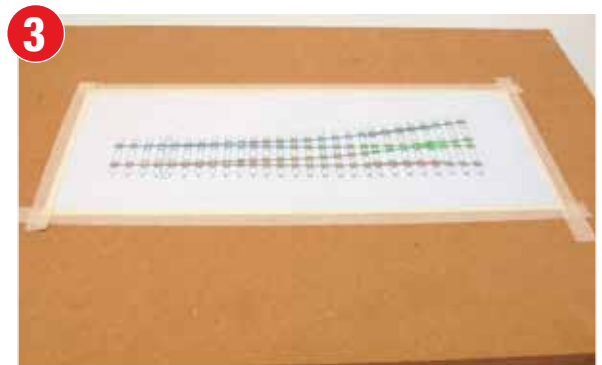
Once the plan is selected, it should be taped down to a flat piece of board. An off-cut of thick MDF is idea for this.

4

The sleepers are etched from circuit board with metal pads to which the rail is soldered. These are tinned with solder to make life easier. Extra solder and a 'No Clean Up' flux is also available in the range.

5

As the rail is stainless steel, it needs a powerful soldering iron if you're using it with the 'No Clean Up' flux. Smaller 18-45W irons won't be up to the job - 50W or greater is recommended. My trusty 45W Antex couldn't make the solder flow properly until I switched to Powerflow flux, available from DIY stores.

6

Although the lines for rail to follow are marked on the plan, these aren't accurate enough and so a set of gauges is essential. These are a one-off purchase as you'll use them for all the track on your layout to ensure consistency.

7
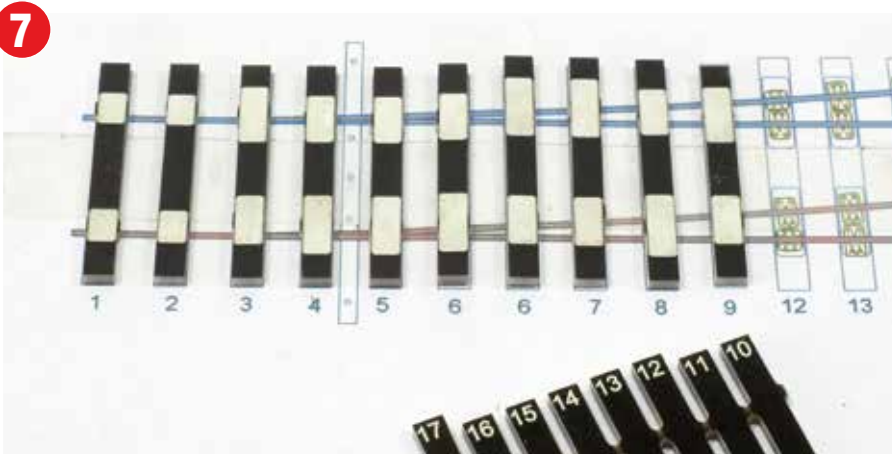
Work starts by setting out the sleepers on the plan. A strip of double-sided sticky tape down the centre line is perfect as it holds firmly but can be peeled away once the point is built. Numbers are printed on the back of each sleeper and should coincide with the numbers on the plan. Note that not all the sleepers are used for all the points.

8
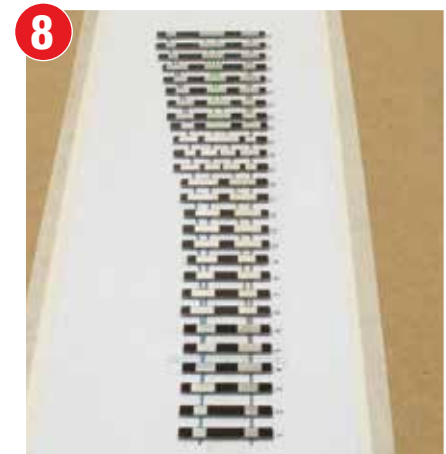
Once the sleepers are fixed, make sure that the ends form a neat line. Here, an extra No. 6 has been put in where there should be a No. 9.

9

The first rail fixed in place is the straight stock rail. Tack this to about 30% of the sleepers initially and keep checking it is straight. A length of wood is handy, as are lolly sticks for holding metal as it's heated up. Making a joint involves placing a blob of flux on the joint and then bringing a small amount of solder to it using the tip of the iron.
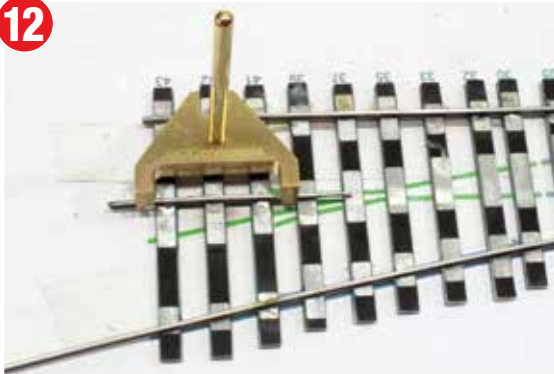
10

Once you're happy with the position, solder all the sleepers to the rail to strengthen the assembly.

11
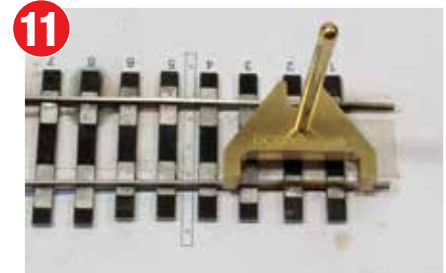
I like to add the curved rail in next but only tack it in to position for most of its run. Only the sleepers before the tiebar can be fixed at this stage, using a track gauge to hold the rail in place.
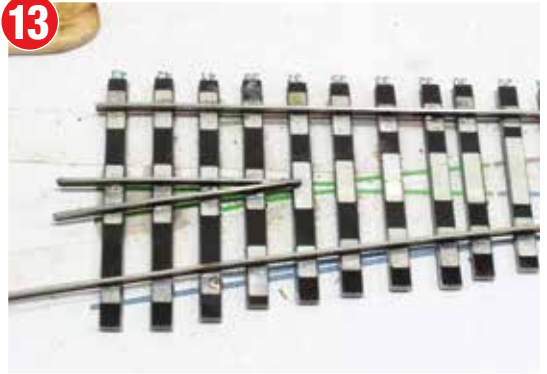
STEP-BY-STEP **GUIDE**

12

Left File a length of rail on one side to produce a chamfered end. This is the straight half of the frog. Time spent getting a nice sharp point will pay dividends with improved running later.
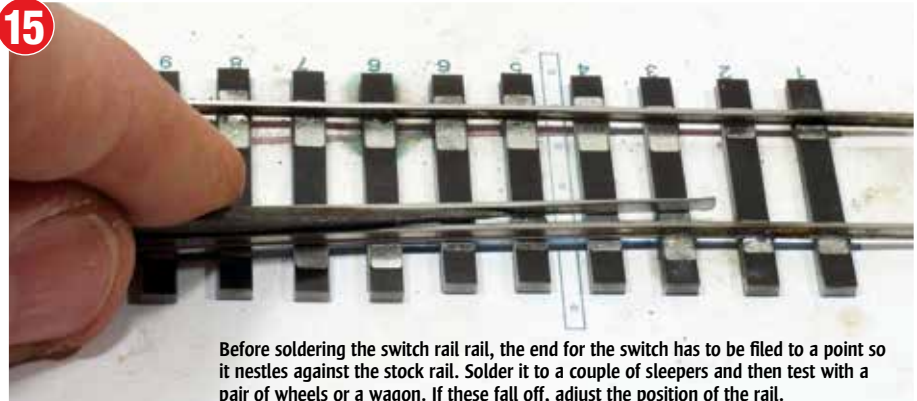
13

Right The other half of the front is put in next using the plan as a guide. Now you can set the curved rail properly using roller gauges.
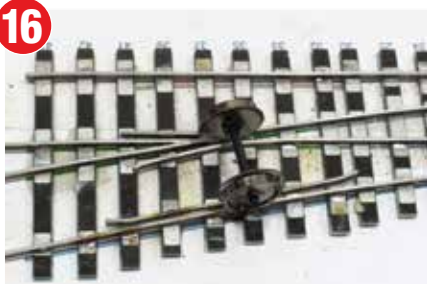
14

The straight switch rail is cut and bent to shape.

15

Before soldering the switch rail rail, the end for the switch has to be filed to a point so it nestles against the stock rail. Solder it to a couple of sleepers and then test with a pair of wheels or a wagon. If these fall off, adjust the position of the rail.

16

Repeat with the curved switch rail and put the curved check rails in place. Use roller gauges to set them the correct distance from the curved stock rail. Test often and don't be satisfied until everything runs properly. It takes a while but the experienced gained will help in future.

17

The tiebar has a couple of holes etched in to it. Brass pins placed in these will act as pivots for the switch blades.

18
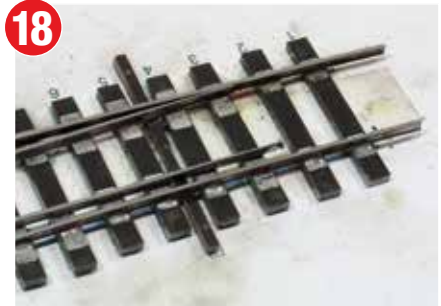
Solder the switch blades to the pins and then file away as much of them as you can so that wheels flanges don't bump on them. When everything is working, solder all the joints

19

Once work is complete, all the solder must be cleaned away or it will eat in to the joints. I find a scrub with Homecare 'Hob Brite' or 'Shiny Sinks' and an old toothbrush does the job. If sleepers are disturbed, re-solder the joints, don't worry, this happens to everyone but at this stage it's easy to fix.

20
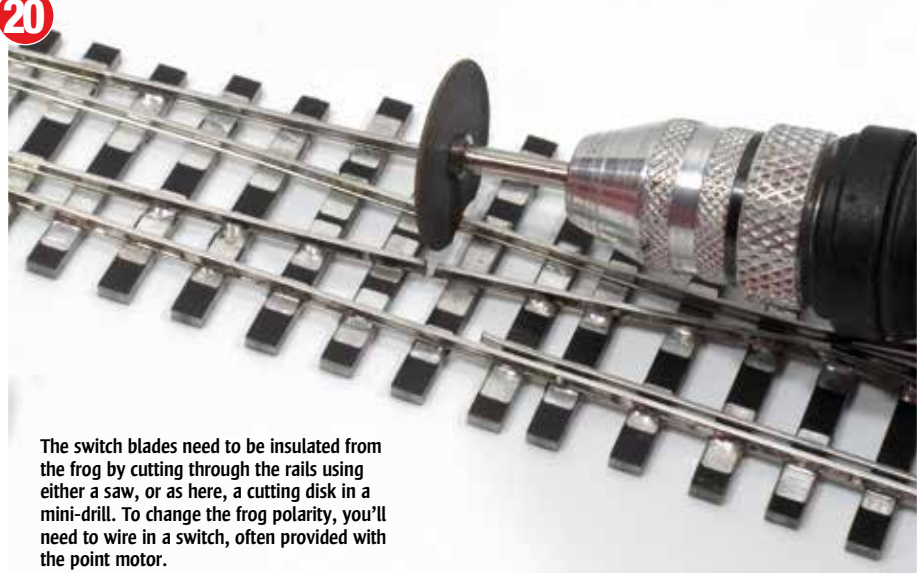
The switch blades need to be insulated from the frog by cutting through the rails using either a saw, or as here, a cutting disk in a mini-drill. To change the frog polarity, you'll need to wire in a switch, often provided with the point motor.