British layouts from overseas

Banbury Connections

▲ The authors at the railway's core – the Banbury and Snow Hill control panels.

CHRISTOPHER DAY *describes this complex 00 gauge layout conceived by his father* **RICHARD DAY**, *an ex-rail planner. It represents much of the railway network in central England despite being constructed in a huge shed in Australia.*

Photography by the authors

Model railways are an enduring passion often grounded in childhood experiences and articles read in formative years. *Sowerby Bridge* by S W S Hosking in RAILWAY MODELLER February 1961 introduced Dad to the concepts of destination and purpose. It was a classic branch line terminus layout with trains that supposedly travelled off scene to the rest of the network: no continuous run layout has ever been seen since.

A little later, in the August issue of *Model Railway News* an article showed him how to fit a busy double track main line and branch in a 6m x 3.5m area.

By 1975 Dad's passion had translated into the portion of the present day layout featured here which contains Marylebone, Wolverhampton, most of the Cambrian Railways section, and the storage loops.

His retirement in 2007 is to blame for the ensuing four-fold expansion that created the full-blown *Banbury Connections* and RAILWAY MODELLER is not an innocent bystander.

The August and September 1977 issues, with the articles on Keith Ledbury's *Paddington to Aberystwyth and Birkenhead* showed him the way forward. *Banbury Connections* has a similar scope. It captures childhood experiences at various Western Region locations, holidays by train to the south coast, university at Aberystwyth, and Birmingham in the last days of the Cambrian Coast Express. Responsibility for the Great Central division rests with memories of the Master Cutler through Neasden in the early 1950s.

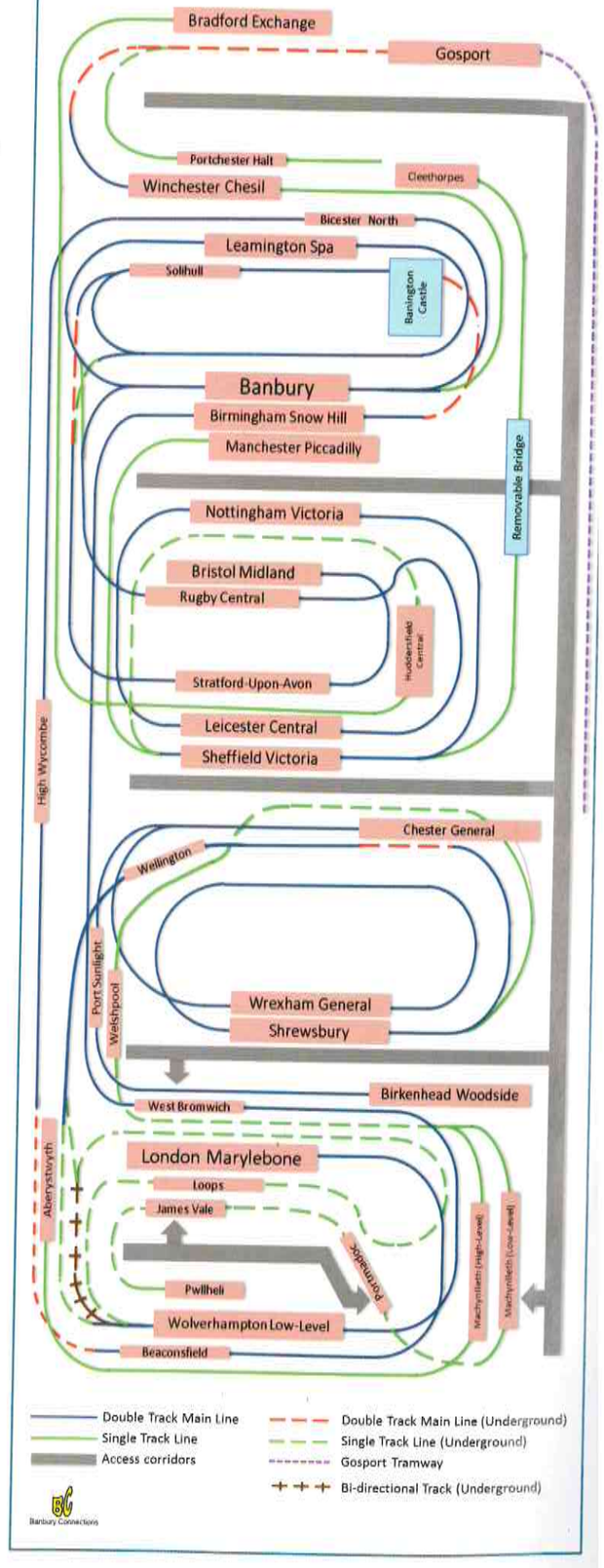
An operator's railway

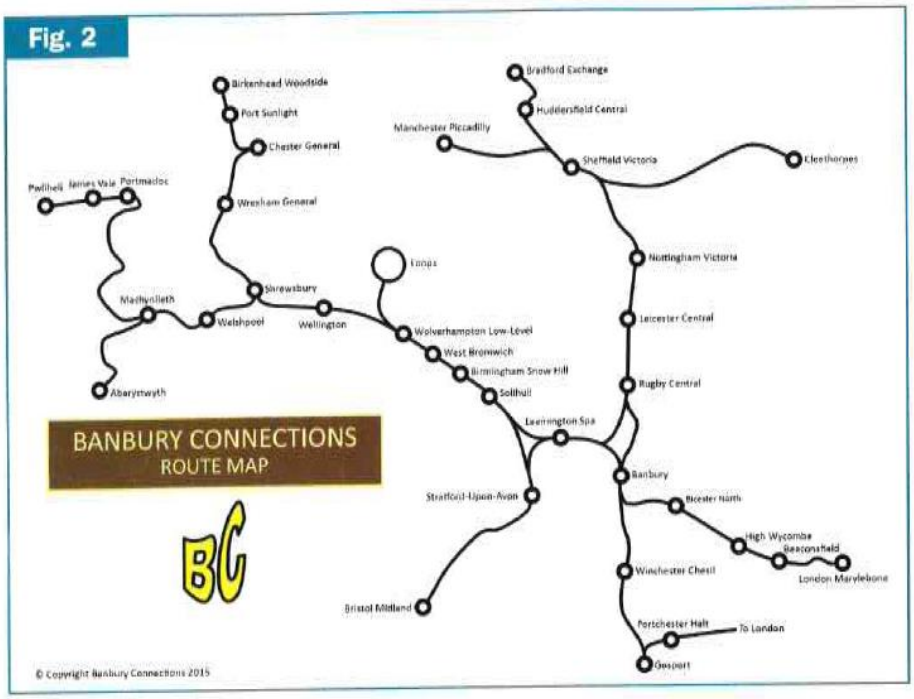
But *Banbury Connections* is not huge for hugeness' sake. It is about simulating a real railway environment in which operators, at their various panels, manage the initiation and progression of numerous train types in real time and where trains progress to a range of actual destinations rather than a "…fiddle yard that represents the rest of the railway system." It also keeps a retired train planning manager off the streets!

Here in Australia, the space to construct a large model railway is becoming increasingly rare, especially in the large cities. We are fortunate in having a purpose-built shed approximately 16m x 7.3m and whilst this is very spacious in a railway modelling perspective, it is minute in comparison to the magnitude of our modelling task. That explains why the schematic layout plan in Fig. 1 bears a serious resemblance to a bowl of spaghetti. Sanity is maintained for first-time visitors to the layout – many of whom display their Australian heritage through a lack of basic UK geographical understanding – by showing

Banington Castle overlooks the town of Banington, which lies between BANbury and LeamINGTON Spa.

Fig. 1 – overall track arrangement



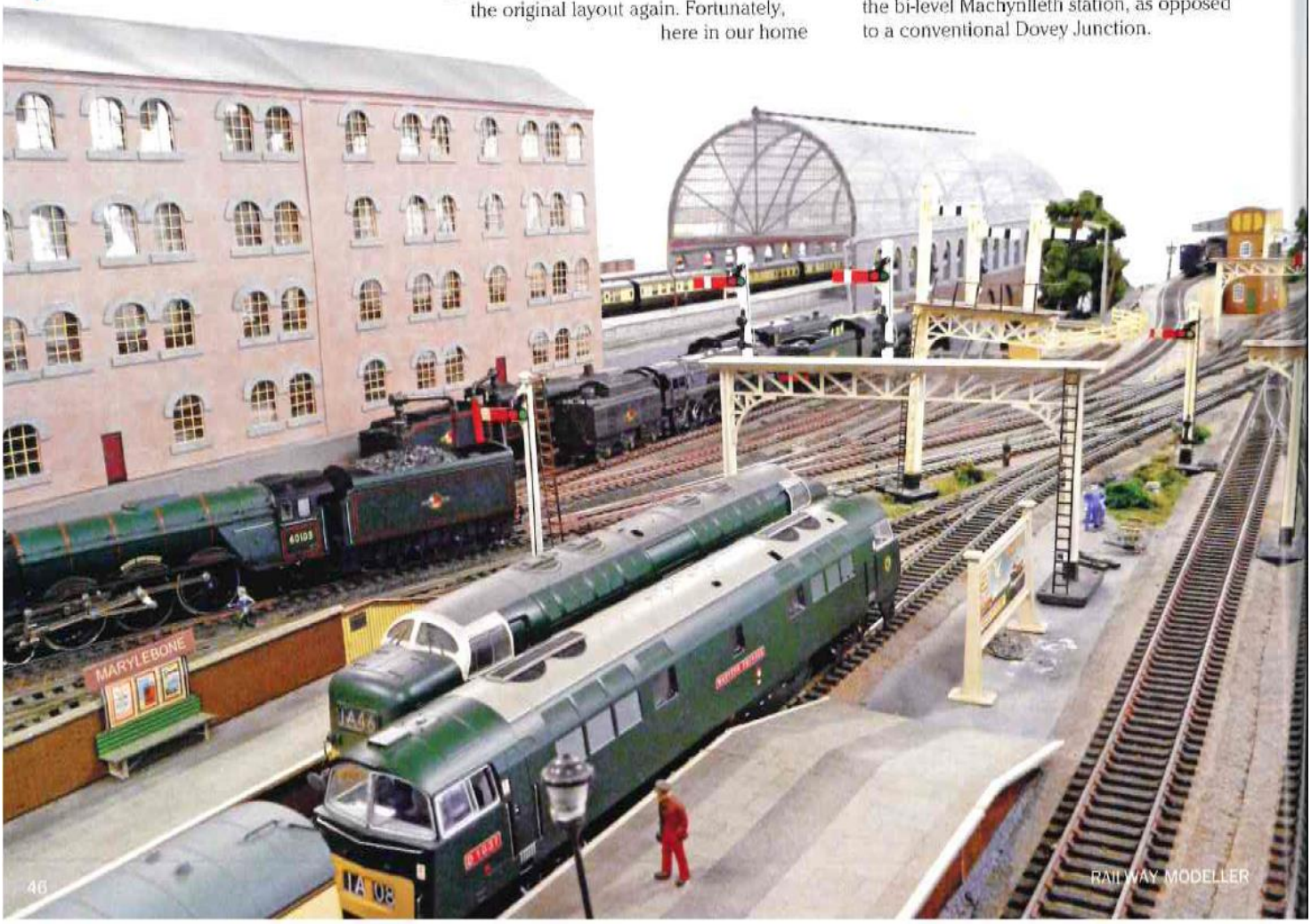


them a large plan (reproduced in Fig. 2) which shows the topological arrangement of our network, along with an old British Railways map overlaid with the actual route (as in Fig. 3).

The Cambrian Coast Express, hauled by No.1037 *Western Empress*, is about to depart Marylebone. In the background, Birkenhead seems close but is about eight scale km away.

Depiction

Prototypical authenticity is not a strong point of *Banbury Connections*. Indeed, the original section of the layout represented somewhere quite different. On the other hand, the section containing Banbury is only two years old and represents the 'missing' link inserted when the managing director (Dad) worked out that by raising the tracks through West Bromwich by 50mm we could burst out of the original layout again. Fortunately, here in our home location, metal sheds can be extended 4m with remarkable ease, without any planning permission angst. Even so a modification of this nature is a striking testament in support of building portable layouts as opposed to fixed ones. Readers will no doubt notice the juxtaposition of many English and Welsh towns and cities, but management remains entirely unrepentant about such geographical anomalies and quite proud of the bi-level Machynlleth station, as opposed to a conventional Dovey Junction.



For facts and figures devotees

There are 35 stations and 143 locomotives and DMU power cars operating out of 11 main running sheds. There is also the 12 vehicle, 8.5m, double track Gosport Corporation tram undertaking, but that's another story. On the railway, 251 carriages are formed into 43 passenger trains and seven parcels trains. The 441 wagons form seven general and one fully fitted goods trains, seven coal trains and 16 block trains. Every train has a specific origin, destination, and motive power specification, as well as intermediate shunting requirements where appropriate. There are over 400 points and 250 signals, operated across 16 main panels. Operating distance is a respectable scale 8km from Marylebone to Birkenhead, though only about 5.5km to Bradford.

Station details

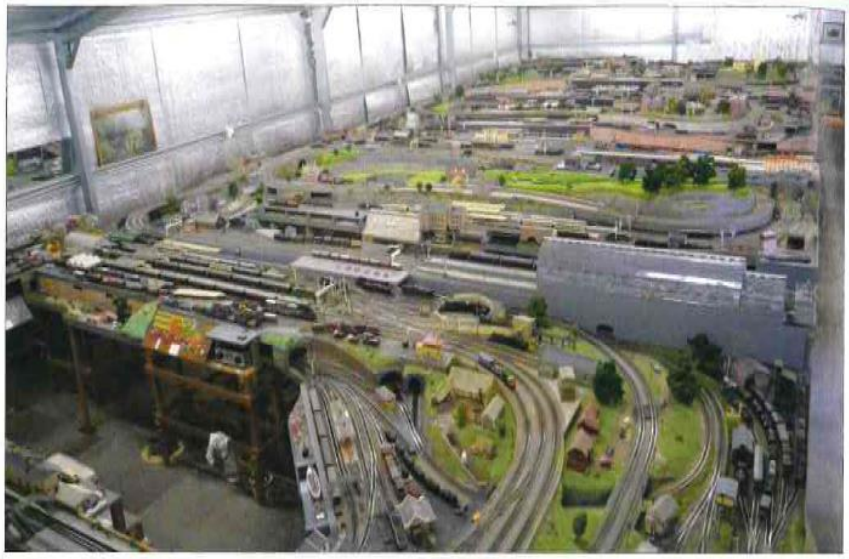
There are ten termini with loco turnarounds and shunting. Most have between three and five platforms, although Marylebone has six, plus quite extensive goods sidings, carriage sidings and a large engine shed. Busy intermediate stations, such as Wolverhampton, Snow Hill, Shrewsbury, Leicester and Sheffield attest to plenty of through running punctuated with such delights as loco changes and local terminating services. Banbury is the pivot point of the railway and its effective capacity dictates the operating pattern and service frequency of the entire layout. All five routes pass through its area of control whilst the moves between the Bristol and Great Central routes involve the use of a pair of three way (triangular) junctions: these have successfully met their design specification of creating the potential for serious delays!

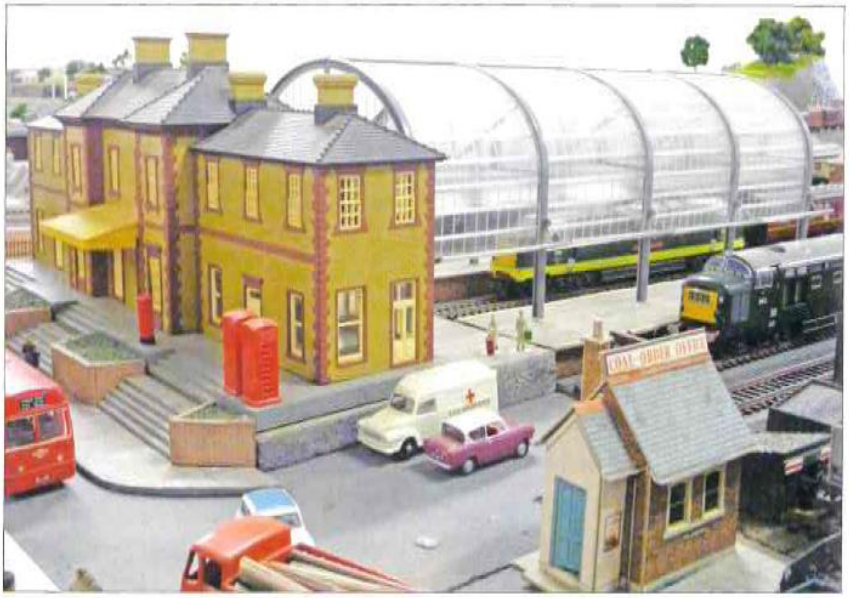
Operating sessions

Trains operate in real time, although a clock that goes slower than this can appear to have merit in times of stress. *Banbury Connections* requires at least eight experienced operators, and preferably a troubleshooter on standby, to operate at its full potential. Operators definitely do not have a cushy life: while everybody is keen to be appointed solely to Winchester Chesil (with up to six train movements per hour) the reality is that this billet is also responsible for Bradford, Gosport and Cleethorpes, but is generally regarded as one of the most straightforward of assignments.

The basic hourly daytime service pattern affords six trains from Marylebone, supplemented by two trains from Gosport and three from Bristol. Together with their corresponding return workings and a few cross regional flows, this gives over 24 trains an hour through the Banbury Panel. As some of these require as many as five station stops before passing to the next operator, two hands and a suitably bifurcated brain are an absolute necessity!

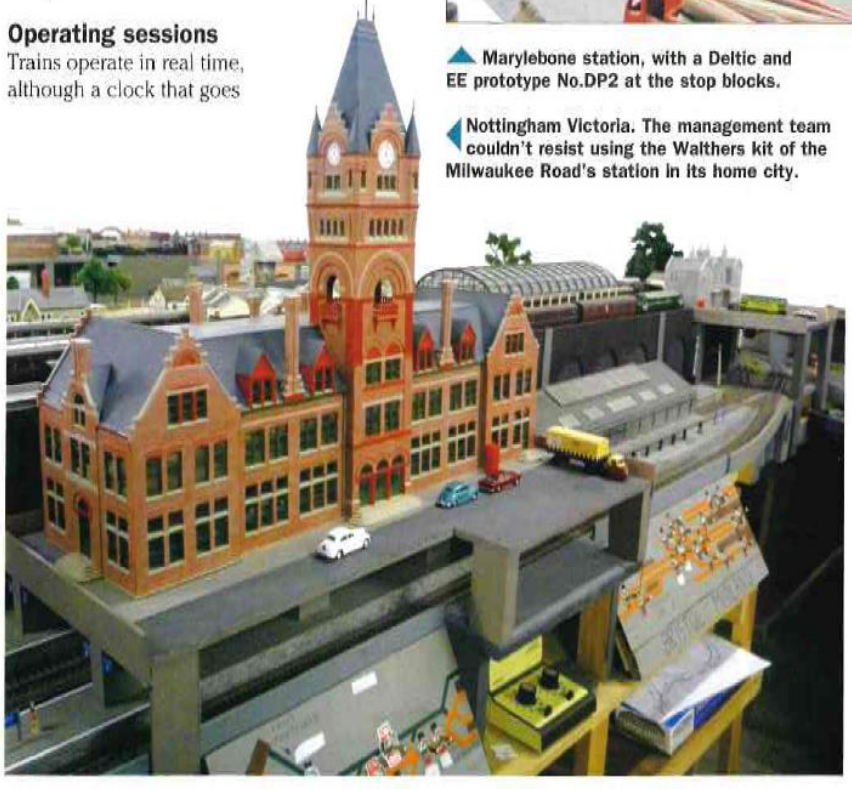
A considerable number of local workings also occur over other parts of the layout. The operating sequence for daytime working is

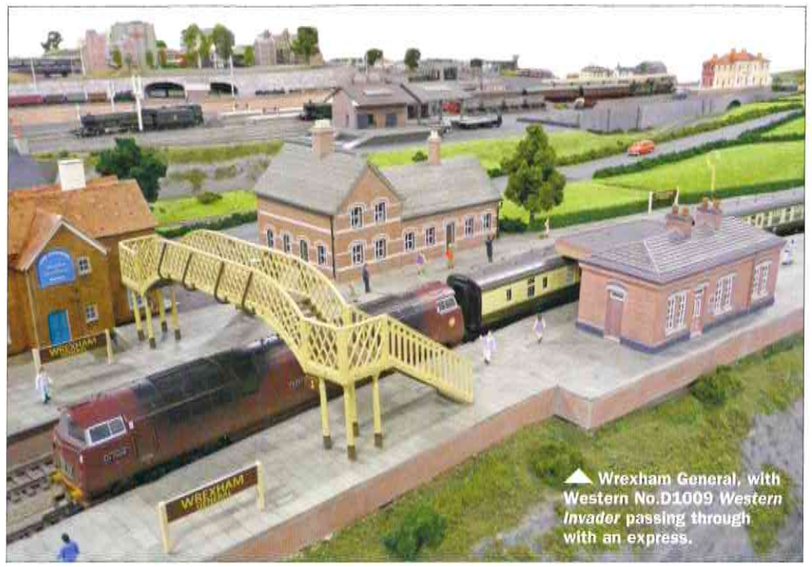




▲ **Marylebone station, with a Deltic and EE prototype No.DP2 at the stop blocks.**

◀ **Nottingham Victoria. The management team couldn't resist using the Walthers kit of the Milwaukee Road's station in its home city.**





Wrexham General, with Western No.D1009 *Western Invader* passing through with an express.

four hours long and, during this period, there is very little scope for freight other than a few perishables and block workings. It's the night time session which provides scope for the two sleeping car expresses, along with the up milk and fish traffic and the wide variety of general mineral and freight.

Period settings

The whole layout just had to be set in the last traditional railway summer of 1962 when everyone's favourite steam types were mixing with those newfangled diesels. The motive power department is wrapped in the performance of the Dapol Westerns, particularly on the heavy Cambrian Coast Express, and it is considered likely that the Kings will not survive the year!

Yet as strong as the case is for 1962, *Banbury Connections* is not all pure nostalgia, for back in 2005 a then, very junior Chief Operating Officer requested the acquisition of a Virgin Voyager for the network. Despite the usual resistance from senior management, the upshot was the eventual equipping of the entire system with a fleet of 2012-period trains. Whilst this achieved the entirely expected result of massive efficiency gains – 30 power units matching the productivity of about 120 – the modern mode proved to be a lot less challenging and has fallen from favour. 1962 it remains.

Period pieces

Banbury Connections stands somewhat aside from the apparent mainstream of contemporary railway modelling with its scramble and demand for ever-closer-to-reality models. Nostalgia plays a big part in this hobby and nostalgia is not only about recreating past periods but also about the use of trusted models that date back to bygone eras, even if unaffordable at the time. Hence the experienced reader will recognise the *de rigueur* Hornby-Dublo engine shed and numerous crescent signals. Subtler touches are the Bilteezi kits, and the ultra-detailed Builder Plus Midland station.

In part the layout is deliberately a record of 50 years of railway modelling with many period pieces well able to hold their own against today's releases. In addition, the intensity of trackwork required permitted little accommodation for prototype accuracy regarding catch points, overlaps and facing sidings, which in places, would be a matter of horror to permanent way engineers!

Operating delight

Despite over 230 non-railway buildings, and the green Welsh countryside around Caer Goch, there is a lot of railway in proportion to scenic setting on this layout.

This may be undesirable to some, but the plus side of *Banbury Connections* is that there is a real railway atmosphere during operating sessions with a great deal to do, whether it be running, shunting, route setting or loco servicing.

So, whilst not a scenic masterpiece in the ilk of *Chee Tor* or *Bucks Hill*, *Banbury Connections* has achieved its aim of being a model train controller's bonanza offering a wide variety of operating experiences.

It is true that a model railway is never finished and we are fortunate that there is plenty of room for improvement. Its operation keeps everyone on their toes and, as dad frequently relates, offers excellent insights into the trials and tribulations of real world timetabling and train control!

Bradford Exchange. A cross-country working for Gosport is about to leave, followed soon after by the South Yorkshireman at platform 2.

Remote control with Infra-red

In this two-part article **GEOFF HAYWOOD** *explains the principles and use of the Red Arrow locomotiv control system and its application to smaller scale layouts.*

Photography by the autho

The Red Arrow infra-red control system is manufactured by A1Micromotive and functions on the principle of the locomotive having an on-board self-contained power unit that consists of a battery pack and a small electronic chip to control the current to the motor.

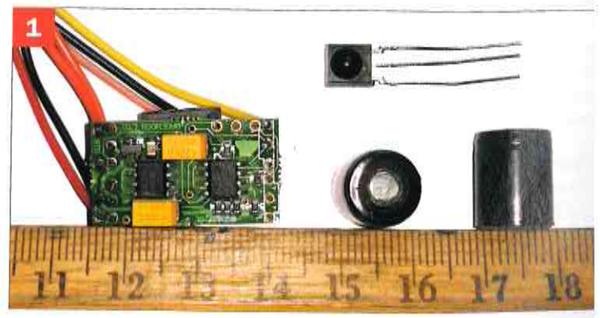
It is similar in principle to some other remote control systems, such as Protocab (see Railway Modeller August 2017) and Deltang, except that it employs Infra-red signals to communicate between the controller and the locomotive(s) instead of radio signals. The locomotive is fitted with an infra-red LED receiver which receives digital pulses generated by the hand-held control unit. Similar in fact to a modern day TV remote control which sends infra-red signals to the TV to change channels, adjust volume etc.

The Red Arrow system allows control of up to 99 individual locomotives – each being able to reverse direction, stop, slow down or speed up as directed by the hand-held unit.

It is not new, having previously been deployed on larger scale and garden railways which have plenty of room inside for the on-board power packs. What is relatively new however is its use on smaller scale indoor railways. This article is an account of my use of the system on a new layout which came about after my previous venture *Hayford Woods* (RM Jan 2008) had been dismantled following my return to Canada from Hawaii.

I planned to start a new layout but like many of us, had been frustrated by problems caused by dirty track, and poor running, especially over turnouts and crossings. The seed for this new concept of control was initially planted in my mind by Ray Green whose article *Bodmin General* (RM June 2007) was read with great interest. He was using the Red Arrow control system, and it seemed to be the perfect answer – although there was a definite problem for me... Ray worked in O gauge, which allows plenty of room for battery packs and control chips, but 4mm OO gauge is another matter, especially whe tank engines are the prim motive power, as was in my case

The various control components which are installed in a loco, clockwise from left; the control chip, the IR sensor/receiver, and two of the NiMh cells the author used to make up the battery pack.



The author's *Brotchley* layout is a Great Western terminus layou and is located permanently in his railway room. It is fully operated b the infra-red control system described in this article.

On board control

The basic component assembl for each locomotive comprise three parts – a control chip, an I