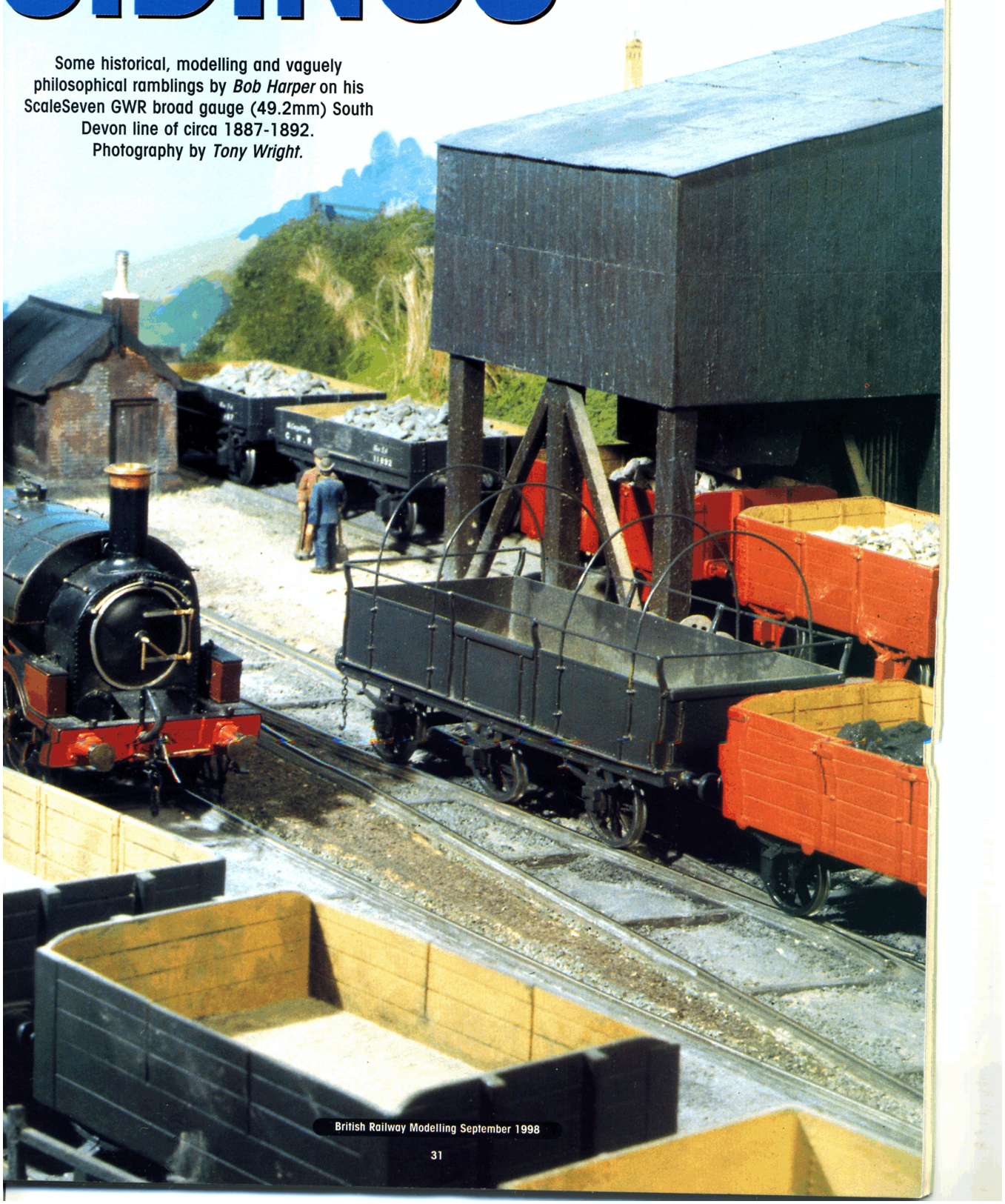
TEIGN HOUSE

Stromboli shunting the goods yard, with the basalt loading hopper in the background. Most of the wagons are either adapted ABS four-plank, cut up and heavily rebuilt Coopercraft three-plank, or scratch-built coal wagons based on a photograph of a wagon belonging to Sully & Co., of Bridgwater. This is virtually the only known photo of broad gauge private owner wagons, as 19th Century photographers didn't waste their valuable glass plate film on humble freight trains, unfortunately. The goods shed is based on one of the smaller all-timber sheds built at some of the broad gauge stations in the early days.

SIDINGS

Some historical, modelling and vaguely philosophical ramblings by *Bob Harper* on his ScaleSeven GWR broad gauge (49.2mm) South Devon line of circa 1887-1892. Photography by *Tony Wright.*



Teign (pronounced Teen) House Sidings is a small broad gauge terminus in 7mm scale, set in South Devon and built to ScaleSeven standards (in both respects!), and represents the latest instalment in my growing interest in Brunel's mould-breaking concept that became the Great Western Railway in the 19th Century.

Readers may have come across my previous layouts (Chewton Mendip, Maristow and Coldrennick Road) either in the flesh at exhibitions or in the model press, and it has certainly been noticed that I have been moving progressively backwards in both time and engineering styles. Indeed it has been jokingly suggested that it won't be long before I get back to working horse power. This may be a little far from the truth, but I do certainly have a tentative desire to see if I can re-create in model form the South Devon Railway's original Atmospheric system. This has certainly been done before in a much bigger scale, using a vacuum cleaner as the propulsion, but not yet in 'table-top' scale size. The main problem, as far as I can see it, is in carrying the vacuum tubes across the baseboard joints on a portable layout. Any thoughts from readers on this would be gratefully received. Perhaps..?

Enough of this pipe-dreaming and let's drag things back to reality ('reality'?). In the early days of the railways, everything was being invented from scratch. Brunel, the visionary who had been chosen to build the original GWR from London to Bristol as well as being Engineer to many of the smaller companies being built as extensions to the GWR, looked at all aspects of contemporary railway design with an eagle eye before deciding on what he thought would be the best features for a long term express main line, rather than a short mineral line of the sort that had grown up in the north east. The broad gauge (7' originally, but soon widened to 7' 0¼" after the first locos were delivered and it was found that they wouldn't go round the curves) was the most obvious feature, but the design of the stations, signals, bridges and many other things all bore his personal stamp of genius.

As with many a genius, some of his designs

ABOVE: *Heron* and its train pull ot of the station, past the Teign House. The actual Teign House at Christow is a very plain building, so we imported a more 'typical' Devon thatched cottage to give more interest to this end of the scene, in contrast to the industrial nature of the other end of the station. The starting signal can hardly be seen, but is a scratch-built slotted post design from the 1880 period. The impressive disc and crossbar signal (Mike Jolly/Broad Gauge Society etch again) is the Home signal, and is at danger. Mechanical interlocking on my hand-built lever frame only allows one of the two signals to be pulled off after the gates have been opened, also then feeding power to the fiddle yard. Other interlocking prevents electrical confusion on the diamond crossovers but this is all, unlike Maristow which is fully interlocked. This is in line with the real railways at this time, where full interlocking was still not compulsory on layouts that hadn't been altered and so required a Board of Trade inspection. Needless to say, the GWR made sure that it didn't alter track layouts on rural backwaters like this, knowing that it would all have to be changed in the near future when the gauge conversion took place.

Magpie on the turntable, with cattle pens and Diag. K2 40' PLV in the background. Sister engine to *Heron*, builder Brian Watson has tried to put in as many of the detail differences that existed between the two locos at different times as possible, the most obvious being the extended bunker on *Magpie*. Fortunately there are a fair number of photos (ie: more than one!) of both locos from several different angles, which helped. The K2 is a 'convertible', ie: a 'narrow' body on a broad underframe, and came from an old Metalmodels body with scratch-built underframe. The, as usual, exquisite painting on this and all the locos and coaches is by Alan Brackenborough.

General view of the passenger end of the station, with ex-Carmarthen and Cardigan Railway 4-4-0 side tank, now converted into South Devon saddle tank *Heron*, waiting for the gates to be opened before she can depart with her train of broad-bodied coaches (from IKB Models, with wide ends), to Newton (the 'Abbot' was only added later). In the foreground is an ex-Bristol and Exeter Railway coal wagon, from an Alan Garner/Broad Gauge Society kit. The overall roof is copied from photos of similar roofs at Starcross and Teignmouth, and are fortunately far less imposing structures than the surviving roofs at places like Ashburton, which covered several tracks.

were curious, to say the least, if not spectacular disasters; the locos built to his original specifications didn't last more than a few months in useful traffic and were known as the 'freaks', whilst his 'one-sided' stations led to wonderful traffic bottlenecks before they were finally rebuilt. But good or bad, nearly everything he built had its own unique character, from his masterpiece at Saltash, the Royal Albert Bridge (still carrying axle-loads several times greater than it was designed for with only minimal extra strengthening in the 20th century), to the wonderful array of timber fan viaducts of different designs that he threw up quickly on a shoe-string budget to get impoverished lines like the Cornwall Railway into business across very different terrain. Intended as stopgaps, the last ones survived until 1947 before being replaced, and were completely accident free despite their apparent frailty.

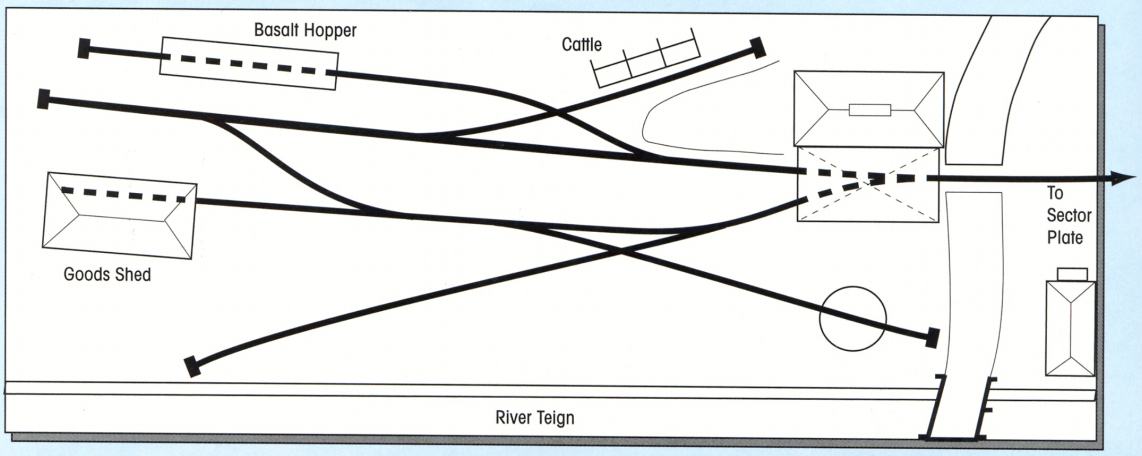
However, the most splendid example of his 'own-goals' was the adoption of the Atmospheric system of propulsion to cope with the steep gradients and sharp curves that would be needed to get the South Devon Railway across the foothills of Dartmoor, without the enormously expensive earthworks that a conventionally worked line would incur. Big pumping engines placed at intervals along the track extracted air from a continuous pipe laid along the middle of the track, and the trains were sucked along by the resulting vacuum. Not surprisingly the technical problems involved proved too great at the time (though with modern materials it would probably be quite feasible now), and conventional loco haulage had to be substituted after a couple of years of endeavours to get it to work. It did, however, leave a legacy that stuck with the South Devon (and the succeeding GWR after all the West Country railways amalgamated in 1876), for years to come.

On the positive side, the SDR was the first railway to be worked by the Electric Telegraph, since this had originally been fitted between all the pumping stations in order to co-ordinate the operation of the pumps for each passing train. The down side was that the SDR was left with a single track main line with very sharp curves and steep gradients (which would have been no problem to the Atmospheric trains?), and a crippling financial situation that didn't allow them to improve things much for years to come. These particular conditions brought forth Gooch's special designs of 4-4-0 saddle tanks, that could cope with both the curvature and the gradients.

So we are left with an inheritance that is wonderful for a modeller - single track main and branch lines with sharp curves and steep hills, short trains of mostly four and six-wheel stock even on the main line, virtually all trains hauled by tank engines, and by the end of the broad gauge in 1892, a most amazing collection of hand-me-down rolling stock of a style quite different to the rest of the country. (As the less outlying parts of the broad gauge system were gradually converted to standard gauge in the 1860s and '70s, most of their rolling stock migrated west, so that by the end, there was an amazing collection of highly individual vehicles in the trains).

As you will have deduced, I am more than slightly enthusiastic about Brunel and all his works (and if you aren't enthusiastic about anything, life must be very dull) - but the early railway pioneers were remarkable men, who reshaped the landscape with little more than horse and manpower. They were multi-talented as well. Apart from building bridges, tunnels, ships, buildings and other machinery, Brunel was an amateur conjurer and a water-colour painter of considerable skill, as his works sketch books show. And fortunately this enthusiasm has been widespread for a long time, with that curious but most excellent affinity between Anglican clergymen and railway enthusiasm (still alive and well today, I'm pleased to say) leading among other things to the classic series of photos taken by the Rev A H Malan in the years between 1882 and the gauge conversion in 1892. A strong mutual respect between him and the railwaymen of the South Devon and Bristol and Exeter areas together with an excellent sense of visual poetry in motion produced a captioned record of a passing era, which nearly 100 years later enthralled me,

TEIGN HOUSE SIDINGS TRACKPLAN



and I'm sure, many other people before me.

Inspired by these, I came across the Broad Gauge Society and have been most fortunate to have access to the immense knowledge and erudition combined with great modelling skill that exists within its membership. Many of my friends within will have been cringing at the howlers I am sure to have made in this description so far, but they are some of the nicest people I have met and will hopefully decently ignore them. Shamelessly exploiting all their work and talent in both primary research and in providing an amazingly wide range of kits and components, I'm pleased to be able to act as a 'front-man' for them and bring my small re-creation of a part of this marvellous but vanished world before the general railway-modelling public.

Ironically, the location I have chosen for my first purely broad gauge line is about the only place in South Devon that never actually ran as broad gauge. The Teign Valley Railway was authorised in 1863 as a broad gauge line from the Moretonhampstead & South Devon Railway to Chudleigh and Doddiscombleigh. In actual fact this scheme was abandoned and a further eight Acts of Parliament were obtained before the line was finally opened in 1882. The line was standard gauge to Ashton, with a freight-only extension to a siding at Teign House (a pub) near Christow. Three more Acts were needed before it was finally finished through to Exeter in 1903. From 1882 to 1892 it was a completely isolated standard gauge line, meeting the broad gauge Moretonhampstead branch at Heathfield.

I have assumed that the original scheme was actually built, with the broad gauge line to Teign House being worked by the South Devon Railway, followed by the GWR after the amalgamation of the

Europa **in the yard. Still unfinished (like much of the stock if you were able to see the operator's side of things!), she was the only one of the 'Standard Goods' to last to the end in 1892, and is built from the same etch as *Stromboli*. The tender is one of Mike Jolly's designs again (what a useful fellow!), and is even more unfinished, so hopefully you can't see much of it behind the water tower.**

Stromboli **leaving with a freight train; the first two vehicles are different designs of 'tilt' wagon, scratch-built by Peter Totman with wonderful weathering to represent (with the older, red wooden vehicle in particular) old stock near the end of its life. The great width of the broad gauge track and the longitudinal baulk construction is particularly noticeable in this view.**

West Country railways in 1877. The layout is set in the last days of the broad gauge, circa 1887-1892, with the locomotives in their final forms and 'convertible' wagons and coaches forming a fair proportion of the rolling stock, although some of the surviving genuine broad gauge stock can be seen. Trains are short, which is typical of the 19th Century all over the West Country, and usually hauled by 4-4-0 or 0-6-0 saddle tanks. The usual branch services are considerably augmented by mineral traffic from the basalt quarries near Christow. Although imaginary, the use of genuine buildings and structures from the surrounding area together with the typical track, signals and rolling stock will hopefully give an idea of the broad gauge before the end in May 1892.

Much help has been given by members of the Broad Gauge Society, in particular Bob Deakin, whose excellent scenic work and buildings won a cup at the Manchester exhibition; Brian Watson, who is able to scratch-build totally convincing 4-4-0 saddle tanks from little more than a few faded photos; Peter Totman, who as Trade Officer has kept the Society supplied with 'goodies' as well as scratch-building the beautiful 'tilt' wagons to be seen on the layout; Mike Jolly, Alan Garner, Peter Boyce and many others who I hope will not be offended if I don't mention them by name.

With all this outpouring of enthusiasm, I don't seem to have any space left for details of the actual layout and some of the intriguing engineering solutions needed to overcome the quite new problems compared to relatively conventional standard gauge modelling. So you will all have to come and see Teign House Sidings in the flesh and ask me personally about:

- how to get very long six-wheel coaches round 4' 6" radius curves with ScaleSeven wheels.
- how you can have split axle pick-up on locos when it's impossible to separate the frames from the boiler and cab.
- how to cram in a track plan that needs 90 minutes to get through a sequence with hardly any repetition of train movement in a space less than 10' long.
- how to get an authentic patina of basalt dust all over the workmen standing by the loading hopper (answer - dump loads of real basalt into the wagons next to them, and they soon start looking in need of the weekly bath).
- and many other things that might interest you.

● During the Autumn of 1998 Teign House Sidings will be appearing at:

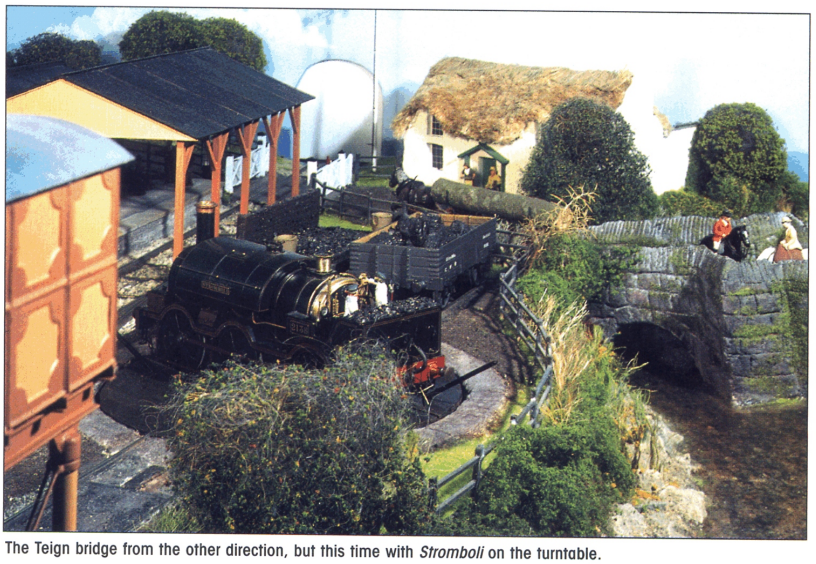
September 5/6. *Guildex*, the Gauge O Guild's enormous extravaganza at Telford. Open to anyone regardless of the scale you work in, you will be knocked backwards by the 35 (yes 35) O gauge layouts on show, together with a staggering range of trade support.

September 19. *Broad Gauge Society Biennial Show* in St. Nicholas' Church Hall in Newbury, just off the main shopping street near the canal. Come and see for yourself how much is available to help you model this wonderful but neglected period of the GWR's history, together with several more layouts by other modellers far more skilled than I am.

November 7/8. *Warley National Model Railway Show* at the NEC near Birmingham. This leviathan amongst exhibitions needs no further description from me.

November 28/29. *South Wales Model Show* at the Rhondda Sports Centre, Ystrad, Rhondda. Modelling of all descriptions including some wonderful perpetual motion machines built from Meccano.

Come along to any or all of these and enjoy yourself, for surely that is what our wonderful hobby is all about, whatever obscure prototype happens to be our particular interest.



The Teign bridge from the other direction, but this time with ***Stromboli*** **on the turntable.**