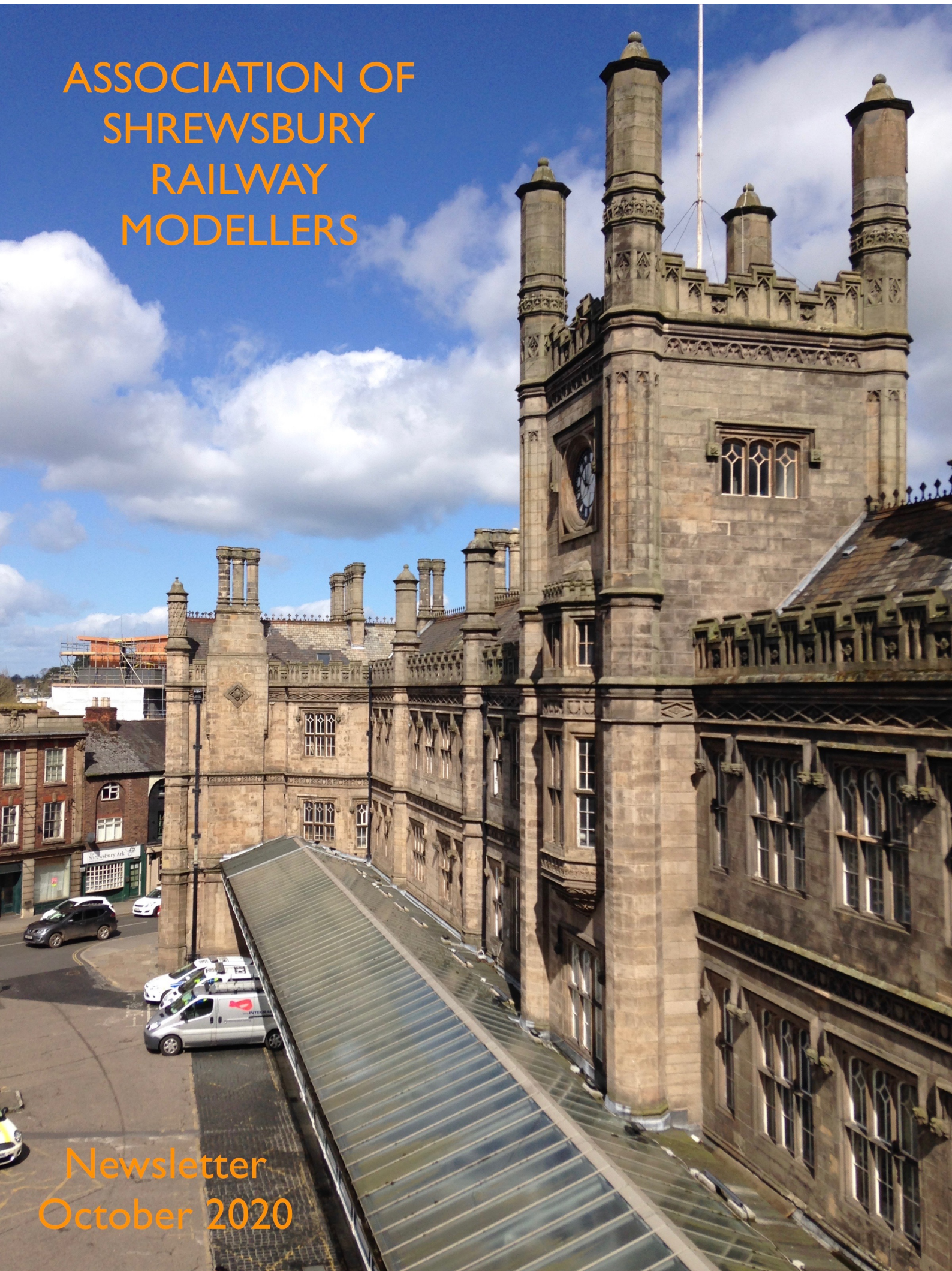


ASSOCIATION OF SHREWSBURY RAILWAY MODELLERS

Newsletter
October 2020



Association of Shrewsbury Railway Modellers

Another month and another editor; what fun we have! It has been wonderful to see the rich variety of skills and talents from members displayed in the issues of this newsletter since it came into being: every cloud has a silver lining. Of course, we would all rather be at our monthly meetings at the Priory School but I am afraid this is not to be for a good time yet, and Nick has asked me to include the following message:

Following correspondence Dave Gotliffe has had with Priory School, it is now clear that we will not be meeting again this year. They will review their letting arrangements in the new year and we will let you know as soon as something is a bit more certain. The newsletters will continue to come each month, please keep sending in your contributions so we can keep the ASRM going even if only over the Internet. We look forward to all getting together again as soon as we are able.

And a message from Dave Gotliffe about our subs:

The new subscription year normally starts on 1st October, but this year we will automatically extend everybody's membership until 31st March 2021 without charge. At next year's AGM we will propose changing the membership year to start on 1st April, in which case we will resume collection of annual subscriptions from 1st April 2021.

Having taken on the challenge of putting together this newsletter – but before I had even started (naïve or what?) I had suggested to our esteemed secretary that it might be more sensible that editors do two issues. If others are like me, you make all the mistakes (well, most of them) the first time around, but on the second attempt the project is a little more what you hoped it would be. Having suggested this, Nick replied within minutes saying “great, you can do October and November...” So, dear reader you have me for this and the next issue. Whether others feel this is a good idea I know not, but I don't think anyone should be obliged to follow suit.

I have slightly indulged myself by creating a title page, and basing it loosely on the subject of the header we have used for many years, the line drawing of Shrewsbury Station. The Gill Sans type face will be understood but allow me the BR(NE) font colour! In terms of content, there is once again great variety but perhaps (and consciously) a few more images.

Having mastered the art of merging pdf files (I will spare you all the technicalities) I have not managed to insert page numbers – but I will see what I can do for next time. In the meantime, I am enormously grateful to all the contributors for this issue. Please keep the articles coming – I need more soon!

All the best and happy modelling.

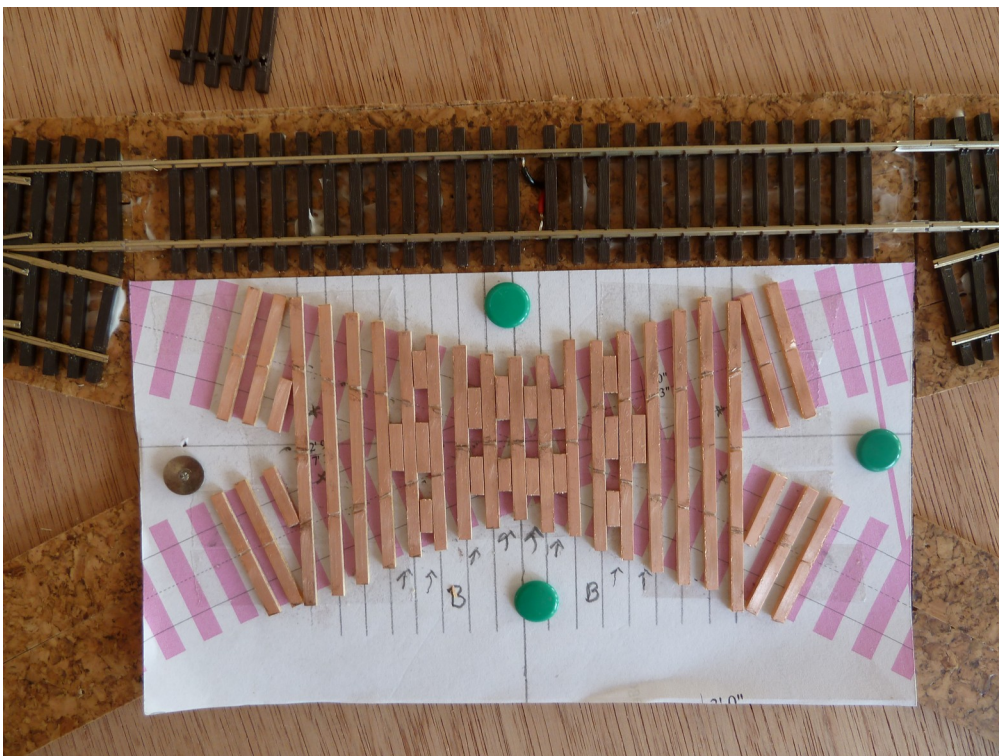
Gordon Woods.

1st October 2020

And then there were three (diamonds that is)

I have completed my three diamond crossings, and, as promised, I can give you an update on my methods and the lessons I have learnt.

As I started on the second diamond, and this a tricky one fed by two points, I decided that I needed to increase the soldering area available to hold the many small pieces of rail in position. On the first one some of these pieces had not held fast while being cut for insulation gaps. I put small copper clad sleeper pieces between the sleepers at the weaker spots, in the hope that after finishing, painting and ballasting these would not be offensively obvious. These extra pieces of sleeper strip were a considerable improvement: no more pieces came loose when the gaps were cut.



Following my experience with the first diamond I painstakingly built a brilliant jig for holding these little pieces in place while soldering; but it proved to be no help whatsoever. Being more sparing in my tinning, one of my other lessons, was a great help however. In the end I found that using tweezers to hold the small pieces in position while soldering at one sleeper only in the first place before checking was the only way to go. I was getting better at it, but it was still far from easy, with few pieces going in correctly first time. With many repeated checks with gauges and with a bogie as I went along, I found that one of the problems was making sure that the track surface height was constant: soldering rail to sleeper does not always manage to provide a uniform thickness of joint – at least not my soldering. After the crossing was completed I found it was quite easy to level any unevenness in the rail height by using a succession of graded emery sticks which I had bought at Eileen's Emporium

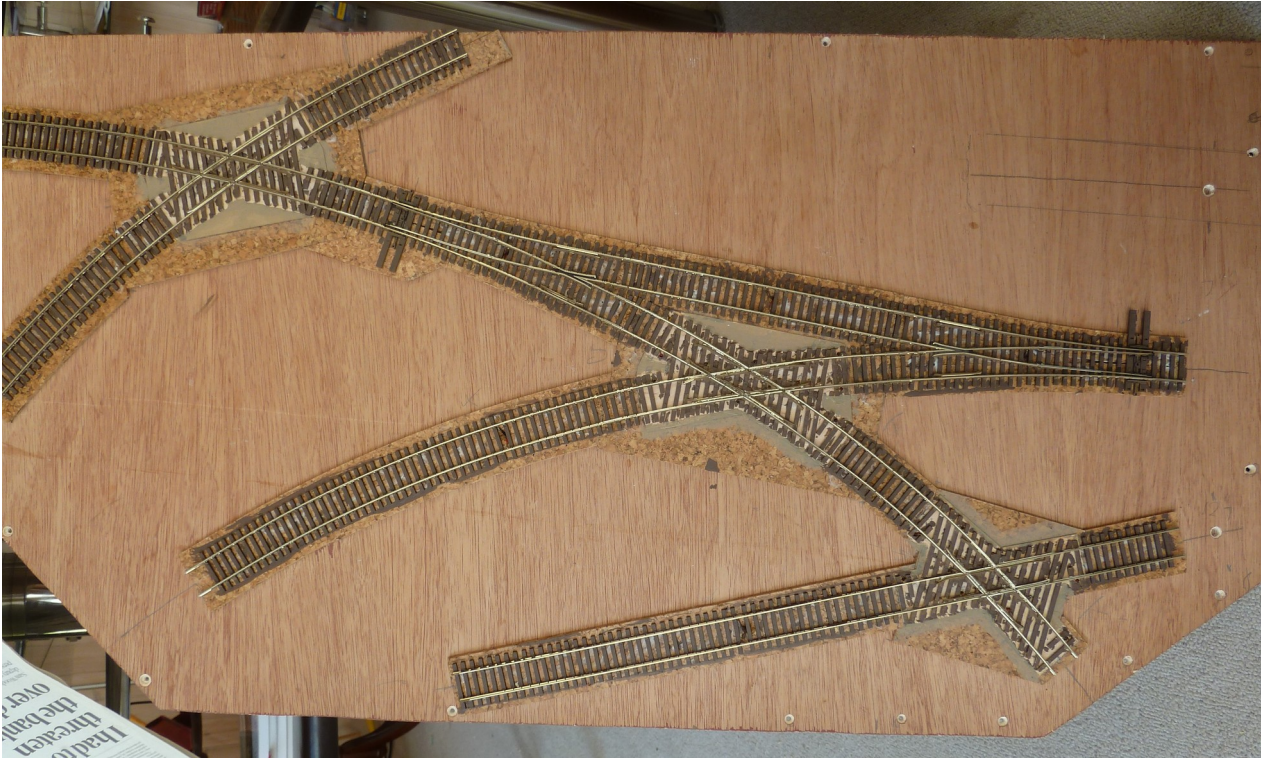
at Stafford show last year (disclaimer). These Canadian sticks are excellent for a variety of purposes, with each stick having a different grade of grit on each side. I have 100/180, 120/240 and 400/600. Taken in turn they cut quickly, leaving a glass-smooth rail surface after finishing with the 600 grade.

On the subject of soldering, I bought myself a new iron because my old one was underpowered and obsolete, with no new bits for it. After some research on line I went for the Antex XS25 watt with a 3mm and a 1mm bit. The 3mm worked best for me on this project, but the 1mm would be better for circuit board work.. At the same time I bought some brass wool bit cleaner, which I have now found to be far, far superior to using a wet sponge. I was too mean to buy the expensive wool holder, so have used an old sardine tin instead, which works perfectly well – as long as washed out properly first! I also bought some copper de-soldering braid which works quite brilliantly if you have overdone the solder. I bought these all from Rapid Electronics, whose prices were good and whose service proved to be very quick and efficient (again, disclaimer). (Please forgive me these details, grandmas who know how to suck eggs, but all this may be useful information for those who, like me, do not.)

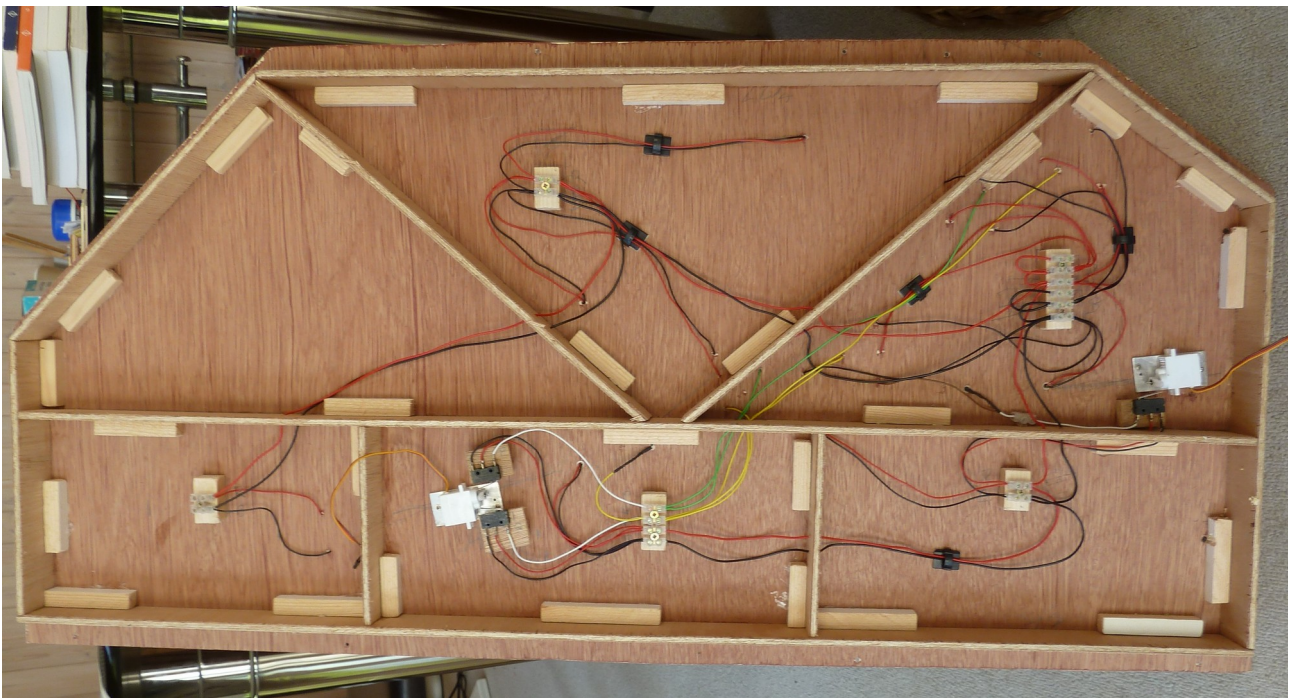
When it came to cutting the insulation gaps I went back to Cornwall Model Boats (disclaimer yet again) and bought two more sizes of jeweller's saw blades. The size 2 gave the best results, creating a gap that is nicely filled by 10 thou plastic strip. Here is a picture of the main tools that I used in this project. Do contact me if you find any of this useful and would like to know more.



By the third diamond I was getting into the swing of things. Had I ten more to build I think I should be really steaming. After painting the sleepers, the sides of the rail, and the top of the check rails, here is a picture of the completed, unballasted board:

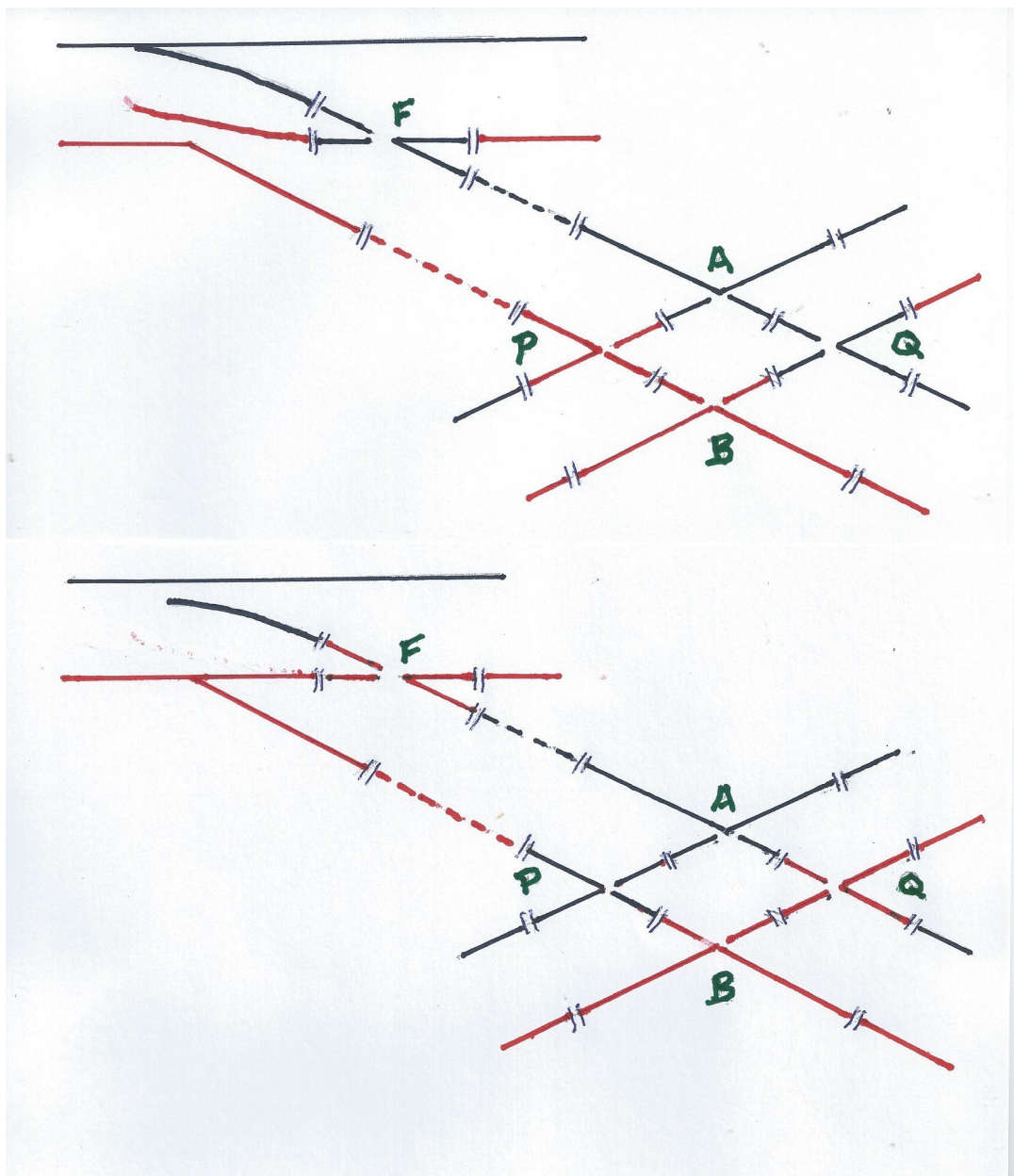


And here is a picture of the ‘works’ underneath:



The Wiring – (perhaps more for the technically minded, but do give it a try because (a) if you can wire a point frog you can do this; and because (b) I have spent a lot of time on these diagrams!)

This is not as difficult as it might seem when first considered. The key thing is the realisation that, while all four frogs of the crossing need to be isolated from each other, only two of them need to be switched. Consider the two diagrams below. In the first, the point is set to take us from top left to bottom right. In the second, the point is set to take us along the straight route. In this second case the polarities at the crossing are set to allow the other route through the crossing to be used. I have coloured in the necessary polarities in each case for this to happen.



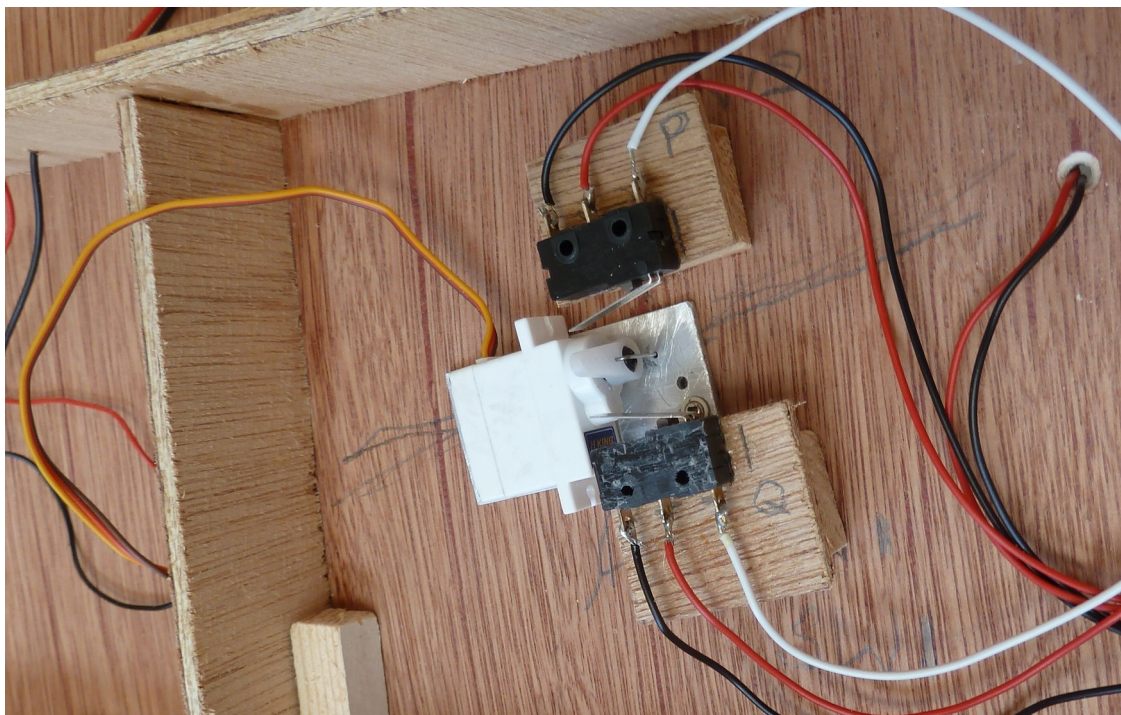
You will see immediately that crossing frog A has the black polarity whichever way the point is set; and, similarly, frog B always has red polarity. They can be wired in the usual way. Only frogs P and Q need to be switched.

In the first case Q has to be black, the same polarity as the point frog F, while P has to have the opposite, red, polarity.

In the second case Q has to be red, again the same polarity as the point frog F, while P again has to have the opposite, black, polarity.

From this I hope it is clear that frog Q simply needs to be wired to the point frog F to be at the correct polarisation. I use a simple switch driven by my point servo to give correct frog polarity, so that is very easy.

P is a little more complicated, as it always needs to be at the opposite polarity to frog F. However, the addition of a second switch driven by the same point servo giving the opposite polarity output solves this cheaply and simply. Below is a close up of the servo with the two switches. As the nylon arm rotates each way it depresses one switch or the other, while the thin piece of piano wire goes through the baseboard to move the point bar. (Note the P and Q marked near the switches. It is, I hope I have convinced you, simple enough in theory, but converting from above board designing to the 180 degree opposite view when working underneath can confuse - believe me! It means you have to keep your wits about you; and careful planning and marking out is essential.)



I have two crossings on the top left to bottom right route fed from this point and they are both wired in exactly the same way, because they need exactly the same polarities. In order to use the two lines which cross this route, the point must be set to the straight route (second diagram). All this polarity switching is achieved from just that one point with the addition of that second switch (£1.50). There are other ways of doing this of course. Frog juicers seem very popular at the moment, but they are not cheap, especially as you would need several for this installation; and you still have to wire up all the frogs and need a point motor in any case.

The weakness in this particular track layout is that if I try to drive a train over one of the cross routes when the point is set the wrong way I shall get a short circuit. A purist - and a grown up rail manager - would insist on some complicated interlocking, electrical or manual, but I am not a purist, and I have a short-circuit warning system that lights up like Guy Fawke's night, so I can live with that. The point just needs to be kept in the straight position at all times unless I am actually using the turning triangle. As always, I favour the 'keep it simple (and cheap!)' approach.

Here it is all in place with trial run locos on the tracks; and, joy of joys, and to my no small surprise, it all worked correctly first time (phew!).



There is an awful lot of scenery still to be done though.....

Peter Cox

Swiss Motive Power in Z Scale

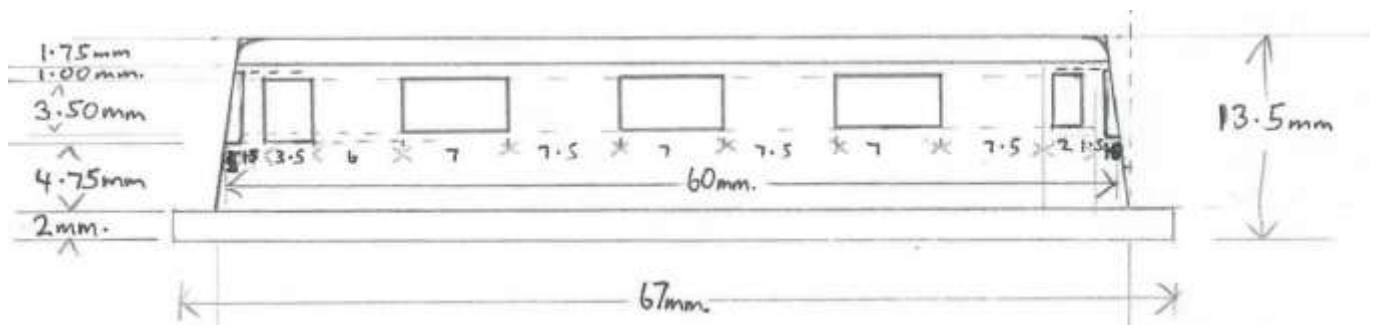
My interest in both Swiss railways and Z Scale go back many years. The ability to put the two together is down to one manufacturer – Marklin, which introduced Z Scale in 1972 and remains the only substantive manufacturer of Z Scale rolling stock in Europe, mainly based on German prototypes. It produces only a limited range of Swiss stock, with some of the major classes not being covered. So about 10 years ago, despite having no previous experience or expertise, I decided to have a go at scratch-building a few Swiss loco bodies, to be mounted on Marklin chassis. Not only would this be a challenge in its own right, but I would also end up with a set of rolling stock that nobody else would be likely to have.

My first attempt was to build a class RE44^{II}. This is the commonest class of electric locomotive in Switzerland and can be found all over the network. 311 of this class were built between 1964 and 1985 by SLM (Swiss Locomotive and Machine Works) at Winterthur.

Most are operated by the Swiss Federal Railway and are painted in its distinctive red livery. For variety I chose to model a Bern Lotschberg Simplon (BLS) version, despite its rather unattractive paint scheme. I obtained as many photographs from different angles as I could find, from which I estimated the principal dimensions and produced drawings, the example below being the first of many, covering every dimension in detail.



A BLS RE44^{II}, in its current hideous paint scheme



I then acquired a DB Class 140 loco, the smallest Bo-Bo loco available from Marklin. This is still larger than the RE44^{II}, which had to be built slightly oversized as a result. The loco body is made mainly from multiple layers of Plastikard, with two brass strips along the lower body to give it rigidity. The glazing is Deluxe Glue 'n Glaze, which generally gives good results in this scale, although with hindsight I should have glazed the cab windows with conventional styrene glazing to make them look more realistic.

The result was a limited success: it looks OK, though not great, and I rarely run the loco on my layouts. In particular, it is noticeably oversize – the body sits far too high on the chassis, something I couldn't easily get around with the incorrect chassis I used. As you can see from the photo below, it looks like an N Scale loco pulling a rake of Z Scale coaches! But on the positive size, the body fits perfectly on the chassis and the loco runs beautifully (as do all my Marklin locos).



BLS RE44^{II}, pulling a rake of BLS coaches



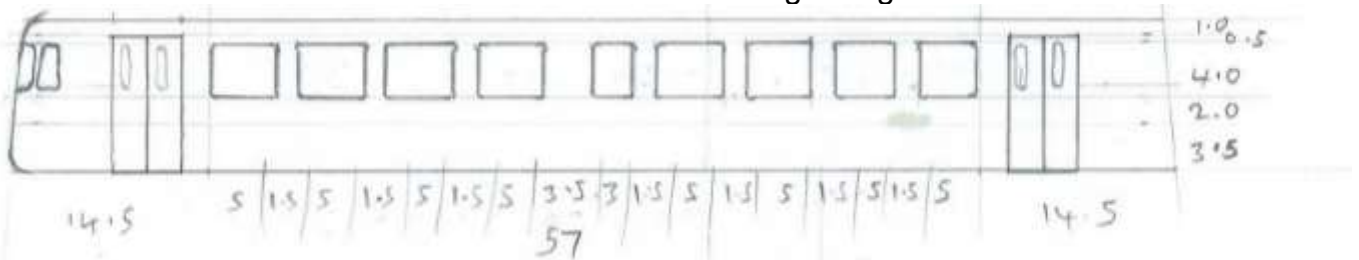
The loco body with its Marklin chassis

My next project was a class RBe540 EMU. These are now virtually antiques on the Swiss network, having been built between 1959 and 1966. But the thrifty Swiss continue to refurbish them, and they are still widely used on local services. A set consists of a single railcar usually (but not always) operated as a push-pull set with an intermediate coach and a driving trailer.



An RBe540 3-car set at Hendschiken, Switzerland

For the powered railcar I again used a Marklin chassis from a German electric loco. The other coaches were built on chassis taken from two flatbed bogie wagons.



For the body construction I followed the same principles as used on the RE44^{II} – detailed drawings, followed by construction using several layers of Plastikard sandwiched between two brass strips on the lower body for strength. This time I chose the standard Swiss Federal Railway (SBB) paint scheme. Fortunately, very little printed text is visible on the units so there is no requirement for elaborate decals. These would be very difficult to produce in Z Gauge unless commissioned professionally at great expense. The main SBB logo on the side of the units and the data panels at the front of the powered railcar were produced very simply on my laptop using Microsoft Paint, and printed onto self-adhesive paper, with the backing colour matched as closely as possible to the background colour used on the rest of the panel.

I am very happy with the final result, and I run the unit regularly on my layouts.



The RBe540 on the author's Z Scale layout



The powered railcar with its Marklin loco chassis

Buoyed up by this success, I then moved on to another EMU, this time an RBDe560 “Colibri” (Hummingbird) 4-car set, another common sight on the SBB.

140 of these sets were built by BBC (the Brown Boveri Company) at Baden between 1984 and 1990, and are widely used on regional services throughout Switzerland



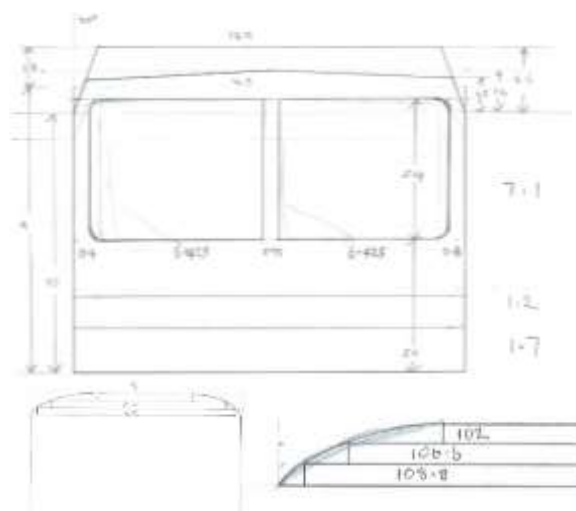
An RBDe560 “Colibri” set at Mulhau station

I constructed three of the four cars on a non-working Marklin ICE set purchased on eBay, but there is no Marklin chassis of the correct size available for the power car. I eventually found an American Budd railcar, manufactured in Z Scale by AZL (American Z Lines). This is fitted with a coreless motor, which is tiny and runs extremely smoothly. The downside is that if the motor ever fails it is not user-serviceable – in fact, I can’t even see the motor, which is presumably embedded within the flatbed chassis - and as this was a limited production run I would not be able to find a replacement easily. So when another Budd popped up on eBay I bought it as a spare.

Construction followed the same principles as the previous EMU, with the exception of the cab windows, which were flush-glazed with a section of transparent plastic sheet in view of their relatively large size.



The preliminary drawings for the Colibri set



The principal dimensions of the cab front and roof construction details



The completed Colibri set, approaching Kyburg station on the author's layout



The power car body & chassis together with a duplicate Budd railcar, which uses the same chassis.

A particularly challenging aspect of all three projects was the roofs, which are curved in two directions. Having experimented with several techniques, I found the most effective was to build each roof from three sections of my trusty Plastikard, of progressively smaller length and width; each was then carefully covered with several layers of White Putty until the Plastikard was completely covered. The whole thing was then carefully sanded using several grades of Wet & Dry paper, of grades down to an extremely fine 1200 grit. This all took time, but the results were very pleasing.

The Colibri set incorporates experience gained from the previous projects, and I am delighted with its appearance and immaculate running. It now takes pride of place among my large collection of Z Scale rolling stock.

My next Z Scale project will be to construct an RABe522 “FLIRT” (Fast Light Inter-city Regional Train). These sets, built by Stadler Rail in Zurich, are gradually replacing the Colibri sets in Switzerland, and they are also becoming a common sight elsewhere in Europe.

I will first need to source a suitable chassis and motor, and that complex multi-curved front end will not be easy to sculpt. But I think it will be enjoyable to build – and nobody else is likely to have one!



A Stadler Rail RABe522 “FLIRT” at Basel

David Gotliffe

The transformation of an idea. (Or Tyler's Curve to Merthyr Vale via Tracy Island!)

Nick Coppin

I guess one's interests in railways and consequently in model railways, change and evolve over time. I started with the Great Western, leafing through RC Riley's *Great Western Album* and poring over Maurice Earley's wonderful photos taken in Sonning Cutting. Over the years I went through 16mm narrow gauge, trams, industrial railways and back to the GWR, building a Scale 7 diorama of Jackfield Halt on the Severn Valley line.



GWR diesel railcar no. 19 pauses at Jackfield Halt

A chance meeting with Brian Caton at Guildex over twenty years ago left me wanting to build live steam. This in turn led me to a 16mm scale narrow gauge line in the garden and eventually I did build a live steam model of a Kerr Stuart loco which still runs.



Kerr Stuart 'Sirdar' class with Ffestiniog train

However, I still hankered after a standard gauge loco and I decided to look for something suitable to build in 0 gauge live steam. I found a candidate in a book about the railways of the Manchester

Ship Canal. It is a Kitson 0-6-0 inside cylindered loco with side tanks extending the whole length of the boiler, ideal for the simple 'pot' boiler I was intending to make. Meanwhile, as mentioned in an earlier newsletter, I had discovered RTR 0 gauge and had made up a nice train of rusty BR 16 ton coal wagons with two grubby radio controlled battery locos to pull them.



ex GWR pannier tank 9792 with coal train

I can run these on the garden line but it would be nice to be able to run them indoors in the inclement weather. Rewinding a few years; I was going through a Ffestiniog Railway phase. The Kerr Stuart loco I had built, once ran on the Oakley slate quarries associated with the FR. I read about Tyler's cutting on the FR near Tan-y-Bwlch. It is a very tight curve with a rock cutting mostly on one side.

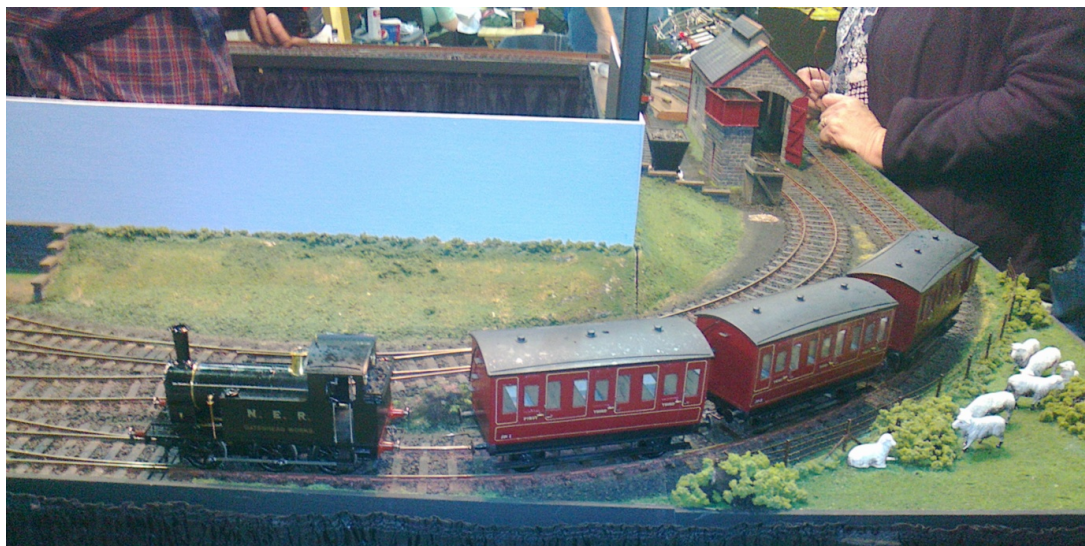


Tyler's cutting

I dreamed up an exhibition layout which consisted of a circle of track with a mountain in the middle with a second, concentric line hidden inside the mountain. Two tunnel mouths would take the train out of view where it could switch to the inner, hidden line. Thus a hugely long train could circulate, disappearing from view for an extended time or two trains could run in opposite directions, all to the puzzlement of the audience! I built a 10' diameter layout with a hole in the middle, much like a ring doughnut and laid two concentric lines, joined by two turnouts. Instead of

appreciating the serious modelling being carried out, Sue, my wife, jokingly referred to it as *Tracy Island* (Thunderbirds?) and the name stuck. Well I eventually went off the idea and converted the layout to a test track with one 32mm and one 45mm line to run stuff in the garage.

Working on my current live steam loco, I thought it would be nice to have a layout to run it on and I was reminded of Brian's 0 gauge live steam exhibition layout *Black Road* which some of you may have seen at Highley Engine shed in 2017. This 8' by 6' continuous layout was based on the idea of a preserved industrial line like the Middleton or Foxfield railways.



Brian Caton's Black Road layout

Tracy Island could form the basis of a similar idea and I started a few sketches. I have ended up with an NCB coal mine railway with a stone wall close to the inside of the line. This was inspired by photos on Flickr of Merthyr Vale colliery in South Wales. I am keeping the 45mm line tucked inside so I can still run my gauge 1 GE steam tram loco and wagons. The original 16mm scale track has been replaced with chaired 7mm scale track and I have added a corner to the circular layout and two short sidings for steaming up and storing wagons. The wall running around the inside of the track is proving a bit of a challenge. It is 30' long and I could carve it all from Das stuck to a ply or hardboard backing but that would take years. I have experimented with a pastry lattice cutter on the Das but it is a 'work in progress'.



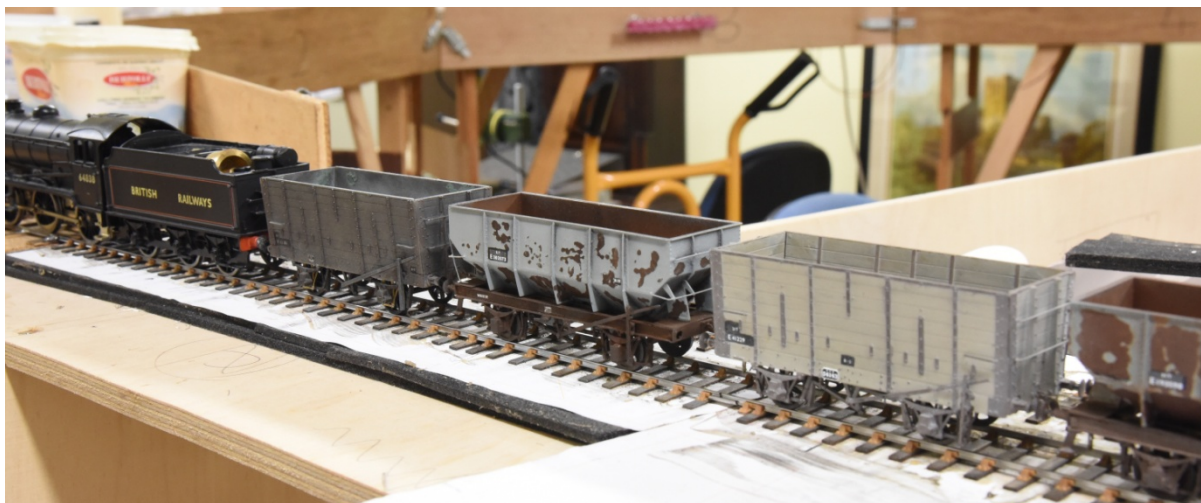
Current iteration of 'Tracy Island'

ASRM Plasticard Challenge and other modelling: an update from Tim Lewis

For various reasons the last month has seen no progress on my entry for the Plasticard Challenge, nor the NER Lowmac that I've reported previously. So, in best Blue Peter fashion...here's some I made earlier!

I thought you might like to see my hopper train, which has been built over the past many years: as with most things, it's not finished, but at least it's presentable. The train is a mixture of "high" (20T and 21T) and "low" (13T and 17T) hoppers, the rationale being that there are two small collieries accessed off the Alnwick branch which have different height screens, necessitating the two different wagon types.

Behind the loco are a mix of wooden ex-NER 20T diagram P7s (perpetuated by the LNER as Diagram 12) and steel LNER 21T Diagram 100s:



The P7s are the well known Slater's kits, now available again I believe. These are nice kits but can be improved by adding scribed planking on the inside and by replacing the brake lever and guide with an etched version from Ambis (very fiddly indeed!)

The 21tonners are Dave Bradwell underframes with RTR bodies from (I think) Airfix (now available in the Bachmann range?) - they are quite old. Two of them have been treated to weathering using the "Maskol method" as described in Martyn Welch's book on weathering. The third one clearly still need handrails, painting and weathering. A couple of years ago Hornby released an excellent new RTR model of these - I have one, but haven't yet figured out how to add sufficient weight to it, as I want the train to run empty in one direction and full in the other. Parkside also do a very nice kit (there are a couple in the drawer!)

The remainder of the "high" wagons are more P7s:

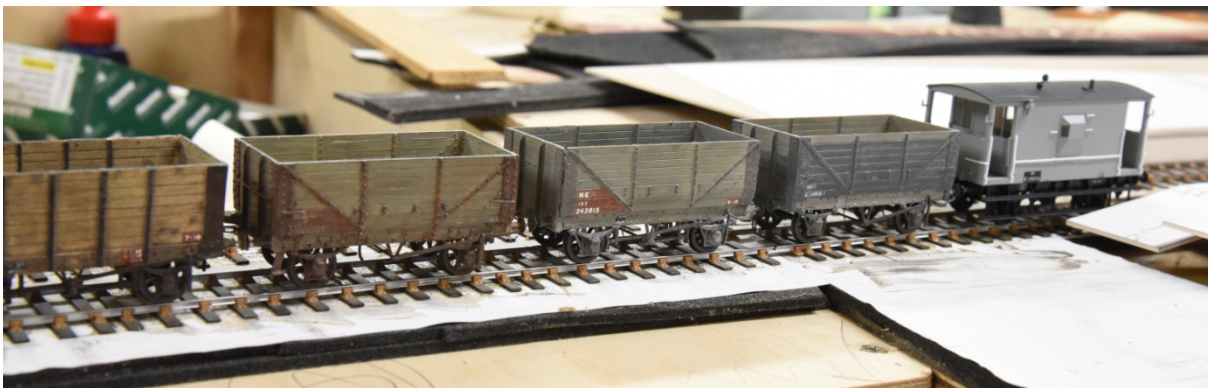


The first three "low" wagons are all scratchbuilt from basswood - a nice material to work with - with plasticard strapping and bolthead detail from Grandt Line and Tichy Trains mouldings:



The first of these is a NER 17T wagon to diagram P6, perpetuated by the LNER as Diagram 11. You don't see many prototype photos of these, but there were over 5000 built, with nearly 2000 still around at Nationalisation. The other two are the much later LNER diagram 193 slope-sided 13T wagons: despite the rather archaic appearance, these were built between 1944-47. To add some much needed weight, the P6 has a lead floor (and brakegear from Slaters/Ambis) whilst the 193s have cast whitemetal floors and brakegear from David Geen.

The final three "low" wagons are all LNER Diagram 137 "angle-sided" 13T wagons, built between 1938-45:



The first (left-hand) one is scratchbuilt from plasticard, whilst the other two are David Geen kits. ASRM members with long memories may remember the scratchbuilt wagon (though probably not!) - we used to have an annual competition with various categories, and this wagon won what I think was called the "kit or scratchbuilt rolling stock" category back in about 1994 or so!

The brake van is a standard Hornby LNER Toad E - again an excellent RTR offering. At the moment all I've done is changed the wheels and couplings, but there's not really anything else to do to it apart from weathering.

I almost forgot to show this BR Diagram 1/142 steel 13T built from a Dave Bradwell kit:



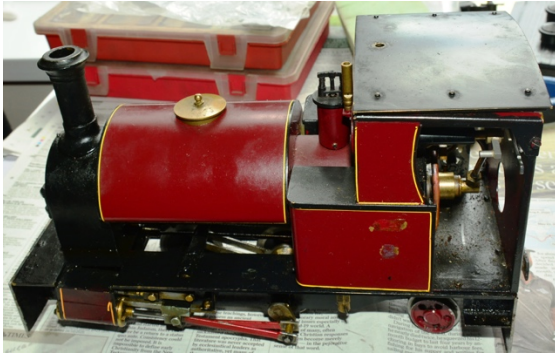
This is a lovely though complex kit to put together. I usually use Pressfix transfers, but for a change I used Methfix on this wagon, but I can't get on with them at all, which explains why half of them have fallen off! This wagon isn't in the train at the moment as it has developed a habit of derailing - I think one of the springs needs adjustment. Parkside (now Peco) are going to release a plastic kit for this, though it's been "imminent" for quite some time now.

So, that's my hopper train - it will get longer: at various stages of completion are another three P7s and two Diagram 100s, plus there's plenty more unstarted kits in the drawer!

Restoration of an Accucraft Excelsior live-steam loco

Mike Wakefield

In 2016 I swapped an Accucraft Leader loco for an Accucraft Mortimer. The Leader is a 0-4-2 saddle tank engine, based on the Kerr Stuart loco on the Sittingbourne and Kemsley Railway in Kent. I'd owned the model for a couple of years and was extremely happy with its looks and how it operated. However there was a bit of an issue; occasionally, while running forwards on the tight curves of my line, the front of the first carriage came off the track. Running bunker first was fine.



Pics above: as first purchased.

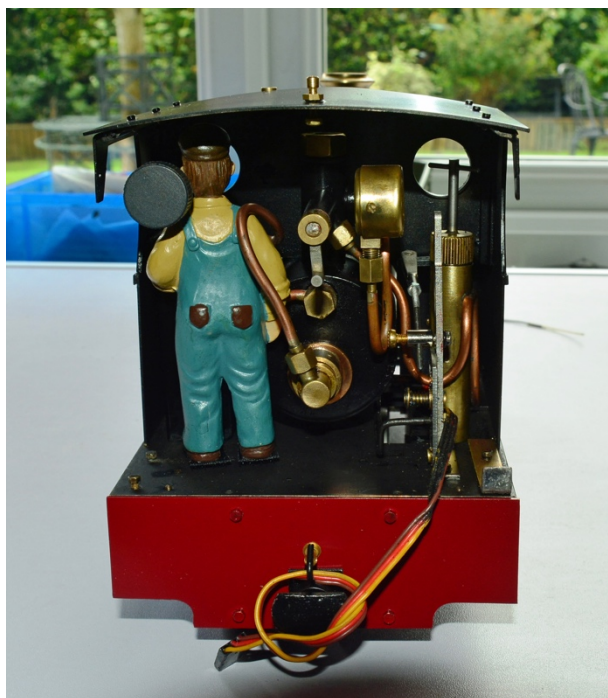
I thought the cause was the design of the Leader. Being a 0-4-2, the driving wheels are quite far forward with a trailing pony truck behind. The rear bunker consequently swings out further than a similar size 0-4-0, and it seemed the size of this swing was pulling the front of the following carriage sideways so it came off the track. I swapped the Leader for a Mortimer, a similar looking saddle tank engine but with a 0-4-0 wheel arrangement and the derailing problem went away.

For those of you not familiar with Accucraft UK Ltd, they've been in existence since 2004 and are a firm that design model locos in this country, but have them manufactured in China (for all the usual reasons of cost and supply). Accucraft UK produces a range of mainly live steam locomotives and rolling stock, in a variety of scales; 1:13.7, 1:19, 1:20.3, and 1:32. In other words narrow gauge and standard gauge, running on either 32mm or 45mm track. Until recently they were based in Church Stretton, but since the original owners decided to semi retire and take more of a backseat, they're now based in Pontrilas, Herefordshire.

The lockdown has meant I've more time on my hands than normal, so one of the things I've been doing is to standardise the couplings on my locos and rolling stock. Previously I'd kept the chopper couplings that come as standard on later Accucraft kit, and hook-and-chain couplings on everything else. Making good use of my 3D printer, all my Accucraft locos and rolling stock are now hook-and-chain. It was only after completing this work that I realised that it was just the design of the Accucraft spring-tensioned chopper couplings that caused the Leader to derail the following carriage on tight curves, and not the loco itself. The rear of the loco swung sufficiently wide for the chopper coupling to attempt to exceed the limit of its sideways travel. If only I'd worked this out back in 2016.....

Having just sold a Roundhouse loco and so having a bit of cash, I went on the lookout for a replacement Leader to run along with my Mortimer. Unfortunately Leaders are few and far

between and go for silly money (or at least far more than I can afford - there's one on sale at the moment for £1020). So, instead, I began looking for the Leader's predecessor, the Accucraft Excelsior. The Excelsior is based on a Brazil class 0-4-2 saddle tank, also built by Kerr Stuart. There's a full size one currently running on the Whipsnade Zoo Railway.



After a lot of searching, I eventually found an Excelsior for a good price. The loco had clearly had a hard life so was in need of some restoration. Not only was it filthy, scratched and in great need of a repaint, but a previous owner (and I was aware there had had at least two before the current seller) had decided to alter it to make it resemble one of the locos on the Corris railway. This meant he'd scrapped the rear bunker and both buffer beams. He'd also drilled the odd hole here and there for no obvious reason. The replacement parts he'd fitted were not all that accurately made.

Left: buffers made and repainted and body back on.

Based on what I'd learned from fitting radio control to my Mortimer, a rear bunker is a much better place for the receiver and battery than next to the boiler. I therefore decided to reinstate the bunker as part of trying to turn the loco back to how it had been originally.

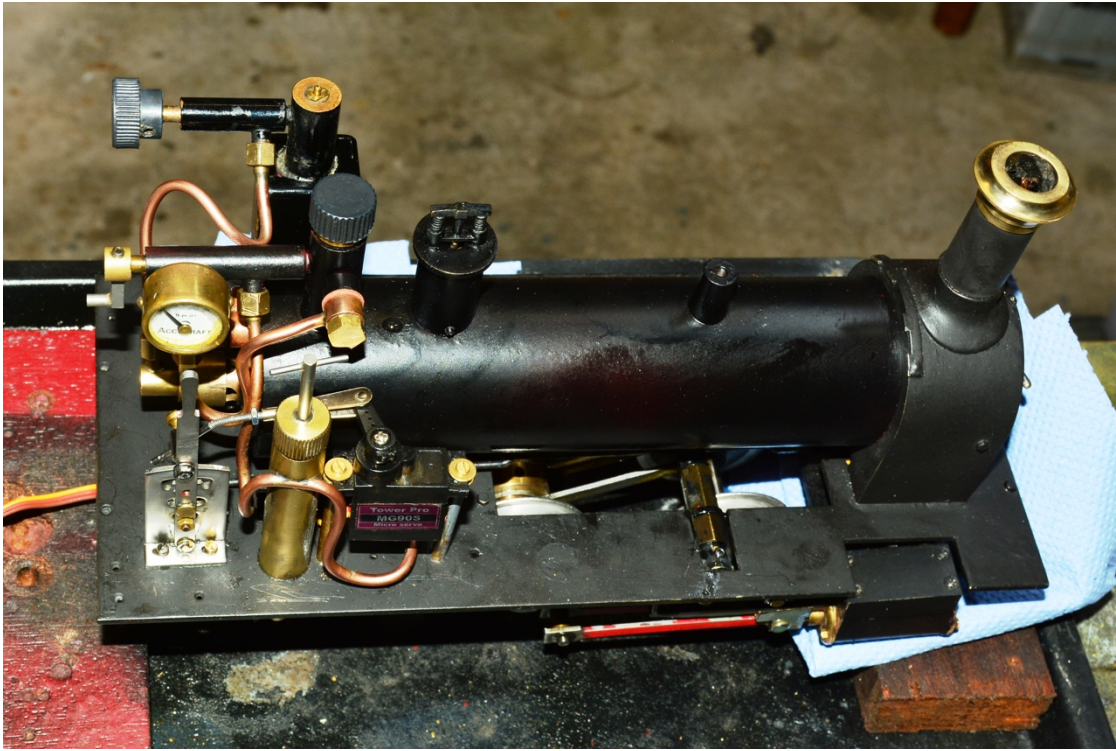
The work took a while and involved completely dismantling the loco down to its component parts. Fortunately the loco's seller had just had it serviced by an Accucraft repair agent based in North Wales, so mechanically it was A-OK.

I managed to source a rear bunker from another Excelsior owner based in East Anglia and who had also altered his Excelsior to look like a Corris railway loco. By chance he'd kept some of the old parts.

I made new buffer beams from brass and shaped them using a milling machine. I also extended the rear buffer to protrude beyond the rear bunker, as I didn't want to risk a following carriage catching the edge of the bunker on one of my track's tight curves.

Many Accucraft locos come with piston valve reversers which, if you fit a servo linked to radio control, allow a single servo to vary both the speed as well as the direction of travel. Yes, you can also fit a second servo to the regulator, but I find slightly adjusting the reverser makes the loco respond far more quickly than adjusting the regulator. There is an added advantage that you can control two locos from one radio control transmitter.

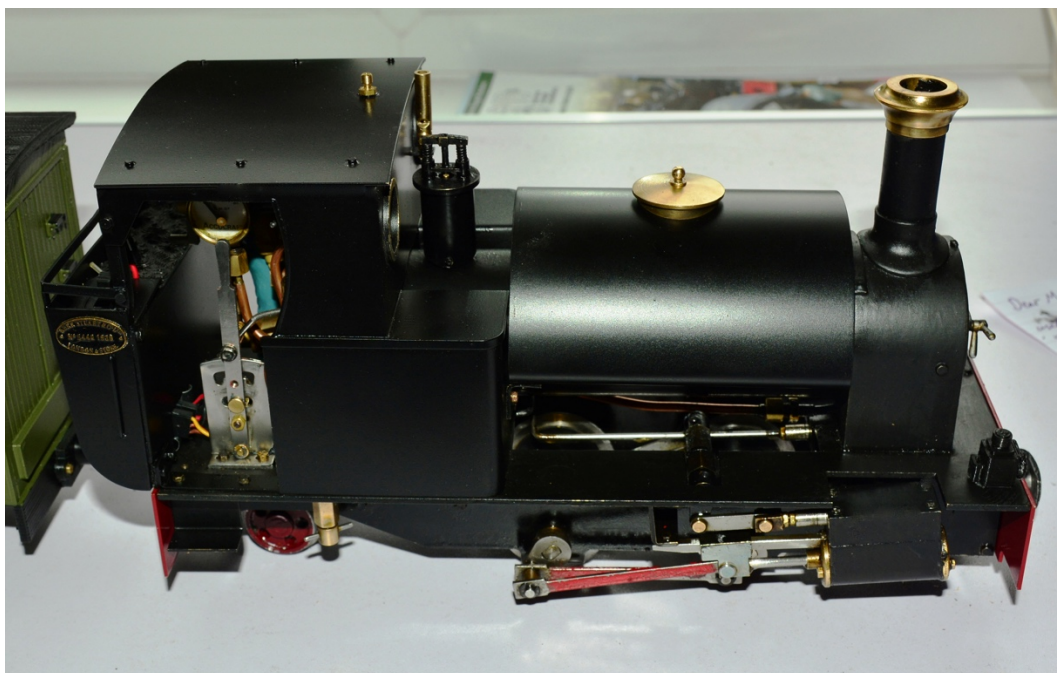
OK, the purists don't like varying the speed with the reverser, saying it's like driving a Tonka toy, but that doesn't bother me, particularly when your loco begins to run away down a slope with a tight bend at the bottom.



Left: servo fitted to the reverser

It took a couple of weeks to get the Excelsior stripped back to bare metal, rebuilt, fit a servo to the reverser, and fully repainted. I also added a chuffer to improve the sound of the chuff (its original steam exhaust pipe was missing) and add some cosmetic

details, such as handrails and lamps. Like Henry Ford, I believe locos should, in the main, be black. I also don't like the weathered look, and opt for polished brass where appropriate.



I was pleased with both how the loco now looked and ran, but there remained a slight problem; as the first loco that Accucraft UK ever designed, the Excelsior was something of a work-in-progress to see what worked and what needed improving on future designs. They'd chosen 8mm diameter cylinders, probably because the factory in China was already making them for Accucraft Trains in the USA. Small cylinders means the Excelsior, while working fine, lacks power and so performs a bit like an early Mamod, with a tendency to either stall or race away at breakneck speed. What was

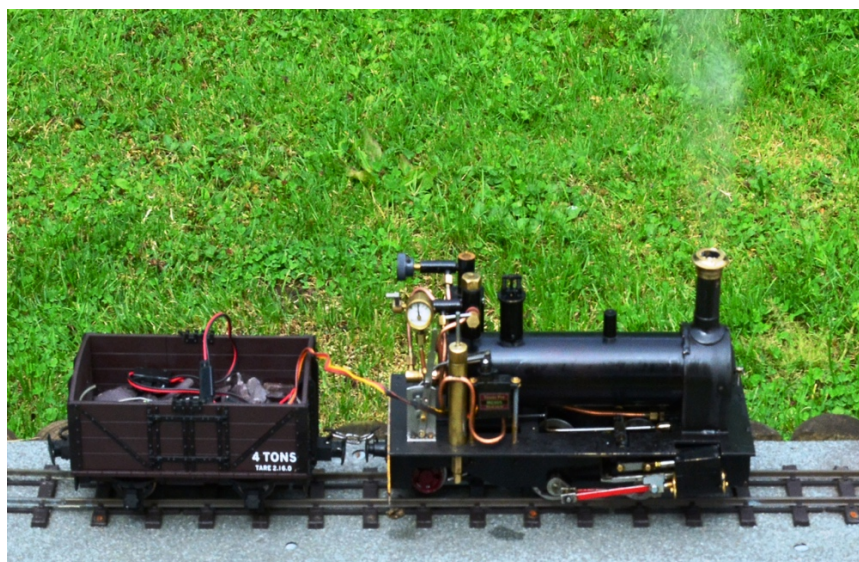
needed were larger cylinders, something Accucraft UK must have realised, as they fitted 12mm diameter cylinders to all their later models.

While the loco was in production, 3rd party suppliers in the UK had offered larger replacement cylinders that many Excelsior owners went on to have fitted. Supply of these cylinders ceased around 9 years ago when the Excelsior was discontinued and replaced by the Leader. These days we have the internet, so after various appeals via Facebook and online forums, I was contacted by Jason Kovak who runs the Train Department in the USA. He had made a batch of replacement larger cylinders for the Ruby, which are locos designed by Accucraft Trains of the USA. The early Rubys, which also had 8mm diameter cylinders, suffered from the same lack of power as the Excelsior. Jason still had one pair of the large 12mm cylinders in stock, which he agreed to send me.

The Ruby's valve gear is not quite the same as the Excelsior. Although it has the simulated Stephenson's link valve gear like the Excelsior, it doesn't have slide bars. I therefore realised it wasn't going to be simply a case of unbolting the old cylinders and bolting on the new.

In the event, it wasn't nearly as difficult as I had feared, and all I had to do was to mill a slot in the face of each new cylinder, to take one end of the existing slide bar. 2mm also had to be milled from either side of the mounting plate so the new cylinder's piston rods lined up with the loco's driving wheels.

So how does my Excelsior run with the larger cylinders? In my opinion, superbly. It can happily pull a reasonably heavy load slowly around my track without faltering and without requiring any adjustment to the radio control. In fact I can put the radio control down, drink a cup of tea, and watch the loco chuff around by itself. Like many Accucraft locos, the Excelsior is designed for the gas to run out before the water, so no worries about it running dry.



Large cylinders fitted (left) and radio control under test (right)



To finish on an aside, Accucraft UK are having to vacate their Herefordshire premises for a couple of months at the end of October so the landlord can repair problems with the roof and drainage. In order to make things easier for themselves, at the end of September, they're having a sale of a great deal of their "open box", end-of-line, and prototypes that have accumulated over the years. One of the items for sale is the prototype Excelsior, so the first loco that Accucraft ever made. Clearly there's no sentimentality when it comes to running a business.

Below: the first loco ever made by Accucraft being prepped for sale.

