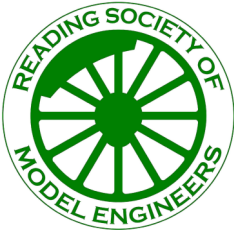


**Reading Society  
of Model  
Engineers  
Charity Number  
1163244**

# The Prospectus

**June 2021**



**President**

**Les Dawson**

0118 969 4654

**Trustees Chair**

**John Billard**

01189 340381

07834 998971

**Secretary**

**Stuart Kidd**

RSMESecretary@gmail.com

**Editor**

**John Billard**

john@jegbillard  
.plus.com



Where was this? See page 2 to find out.  
Photo John Spokes.

**SHROPSHIRE IN READING?  
TRUSTEES  
LOCKDOWN ACTIVITY  
TINPLATE  
KITCHEN TRANSFORMED  
FLUTES**

**Free to members**

## **A VIEW FROM THE CHAIR**

**by John Billard**

Warm weather at last though before that we had a private event at the track and of course it poured at times. I had the Manor in steam and running after a long time other than for its steam test. Like the children behind me it could not care less about being wet!

We had a useful trustees meeting on the 10th of May. In particular Peter Harrison is handing over to Stuart Kidd the secretary role. It's a big job so be kind to him! We are trying to sort out a possible work list for the Wednesday workers to coordinate things in advance—like painting the club-house exterior and the steaming bays..... It is still hoped that public running will resume on 4 July but watch this space. There is a car event planned for Prospect Park that day so it could be busy. Other issues included who can attend the site on non running days and keeping an up to date register of key holders.

I must thank those who have transformed the kitchen in the club house. The work is ongoing but you will really notice the difference I am sure.

There is further confirmation of the Southern Federation of Model Engineers rally here on 18 September. There will be plenty to do for that and we will keep you posted. I thank Peter Harrison for leading on this.

I must mention membership renewal for the current year. Mike Manners tells us that progress is steady but we very much wish to welcome on board those who have not renewed so far. That would be the best reward for members who have worked so hard to keep RSME alive during the last year. Without them there would be no club to join.

## **A Little Bit of Shropshire on Reading Roads**

**by John Spokes**

In the mid-1970s I was living and working in Stourport-on-Severn, a small Worcestershire town which came to prominence in the Canal Age because of its location at the junction of the River Severn and the Staffordshire and Worcestershire Canal and through that to the Birmingham Canal, and consequently it became one of the major outlets of goods from the West Midlands. Stourport was always something of a frontier town, both in Georgian times, with its waterside hostleries and nomadic narrowboat men and women, and, more recently, its funfair, riverboats and other amenities which attract visitors from the Birmingham conurbation. However, these 'Brummy' tourists rarely cross the bridge over the Severn, which marks the beginning of a magnificent rural landscape, virtually unbroken through Worcestershire, Shropshire, and Herefordshire, all the way to the Welsh Coast.

One highpoint of this vista west, both physically and metaphorically, is Titterstone Clee Hill, an igneous mass of dolerite (a type of granite) overlaying softer sedimental rocks, rising to 1749ft and once a refuge for pre-historic

peoples who built hill forts here. An iron age fort, some of which remains, is unusual in that it is constructed partly of stone blocks. Titterstone dolerite, or Dhustone, as it was often referred to (thought to derive from the Welsh for ‘black’), was the source of materials for many of the roads built in England in the 19<sup>th</sup> Century. Typical amongst these towns was Reading and I have a book which describes parts of the Reading road system and remnants of cobbled thoroughfares and kerbing and the type of stones used. Titterstone features prominently in this tome.

Predominately in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, but less so in the period leading to closure in 1960, Titterstone Clee sported a number of quarries and stone processing plants linked by ropeways, inclines and a network of narrow-gauge and standard-gauge railways. One large quarry is still worked, but sad to relate, and not unexpected, the old infrastructure has been removed and all that remains are some trackways and the more substantial parts of stone processing works. Over the years I have collected many transport-related photographs and slides of a variety of places or categories, for example: some location I knew well (often when trainspotting), something that is relatively unusual and often just because the photographic record has an aesthetic quality. In this context I have selected a few of the photographs I have of the railway system on Titterstone Clee, primarily centred around the still existing hillside hamlet of Dhustone, which was the wild, tree-less, wind-swept focus of this long-forgotten industry whose product can still be seen on our streets.



*Left* is an overview of the hamlet of Dhustone. This photo, like some of the others, shows a lot of detail, which may not reproduce in “Prospectus”. The building on the left is the winding house for the 1 in 10 incline down to Bitterley Wharf. On the track leading to the incline top, at the right, is a Sentinel locomotive, 47181 of 89A, Shrewsbury

Shed, which is shunting some wagons. In this vicinity are a number of buildings: terraced housing for railway and quarry workers, a hut for the men responsible for operating the incline, a primitive loo and a white garage. I remember these garages, in childhood. They were, I believe, steel framed, clad in asbestos sheet, a corrugated iron roof, relatively cheap and easy to erect. To the foreground are neatly packed rows of flagstones and track beds of long-gone tramways. The date of the photograph is 14<sup>th</sup> May 1956.

Originally the incline was operated on funicular basis using a shared central

rail with a passing place where the rails separated into two tracks. *Right* shows a tipper wagon progressing down and this has just passed the junction where the track reverts to three rails. This photo is dated 1930 when the gauge was 3' 0" made up of flat-bottomed spiked track and this complemented the 3' 0" track used in the quarries. The incline terminated at Bitterley Wharf, 1¼ miles away, where loads were transferred into



standard-gauge owners wagons. Prominent amongst these wagons were those of The Clew Hill Granite Company. A short line from Bitterley Wharf joined with the Shrewsbury and Hereford, LNWR and GWR Joint Railway at Ludlow.

*Left* is a view looking to the top of the incline with the gates across, the incline operators' hut to the right and in the distance the end wall of the winding house and beyond that a bridge which once supported an aerial ropeway. The white garage is also visible. The track gauge is 4' 8½" and it may be noticed that at this time (winter 1955 – there is a heavy frost

on the ground) the left-hand hauling cable has been removed. The left-hand track on the lower part of the incline had also been done away with and the incline operated on a single up and down line, which presumably was sufficient to manage the reduced traffic. The change to standard gauge on the incline allowed wagons from the incline top sidings to be taken onto Ludlow without a transfer at Bitterley Wharf. The narrow-gauge in the quarry networks was retained, and products were transferred directly from the quarry works into standard-gauge wagons in the sidings above the incline top.

The lines branching off to the right and left were additions in BR days as precautions against runaways which would be stopped by the embankment either side of a road bridge from which this photograph was taken. Points leading to these emergency tracks would presumably have only been set to normal once it was certain that a wagon was correctly attached to or detached from the cable. It is not clear how many wagons would descend the incline at a time, presumably 2 or 3, but the winding engine must have had sufficient power to haul a Sentinel loco (and possibly some of the narrow-gauge engines) up the incline.

*Photo overleaf* was taken on the same occasion as Photo 1 and shows Senti-





nel 47181, shunting wagons to the incline top. That garage appears yet again with what might be a Morris 12 parked up outside.

*Right below* illustrates one of the stone crushing plants on the hill. Judging by the dress of the people in the picture, this would appear to be around the time of WWI. Crushed Titterstone dolerite was very popular

for making road bases and is possibly unknowingly visible today in some of the many potholes that scar Reading roads.



*Left* was probably taken circa 1900 shows some of the narrow-gauge wagons on either side of the standard-gauge transfer bays at Bitterley Wharf. Two steam-hauled lines of

narrow-gauge tippler wagons stand alongside and above the standard-gauge lines, one of which is occupied by an LNWR 0-4-0 saddle tank with its spartan 'weatherboard' cab, one of a series of 35 engines that was constructed by Ramsbottom in the period 1863 to 1870. The standard gauge wagons are full of crushed dolerite, the middle road private owner's wagons are marked Cleve Hill Granite and on the far right are stacks of granite setts, which were used for making cobbled roads.



Finally, *left* This is a WW1-surplus Baldwin 0-4-0 saddle tank with its typical USA outline of the two sand domes and between the steam dome and front sand-dome is the bracket for the bell it once supported.

As an epilogue to this narrative, I mentioned briefly above, a book. I received this as a gift last Christmas and is enti-

tled ‘Kerbside Geology in Reading’. To be frank, the book is considerably more interesting than its title would suggest, as it covers extensively the historical and architectural development of areas of Reading, such as Eldon Square and Coley Park. Inspired by the book, I made a “Field Trip”, as archaeologists would say, to the Castle Hill area..... my case for “kerb-crawling” comes up before Reading Magistrates on June 12<sup>th</sup>. My solicitor recommends I plead Guilty on the Grounds of Diminished Responsibility, using membership of RSME as mitigation! We hope for a Suspended Sentence.

## **THE TRUSTEES WE KNOW...**

**by the Trustees Chair**

### **Jim Brown**

Jim has translated his long banking career into an even longer time looking after our RSME finances. The club would not be in the healthy state it is today without Jim’s assiduous chancellorship.

### **Mike Chalmers**

Mike has an AWE background so it is natural that he has a Health and Safety brief. He also has the sort of voice to be able sort out our contractors.

### **Peter Culham**

Peter is our Birthday Party supremo and has brought joy to very many children and families – also to Jim’s finances. Any job needed – Peter is there; and he can tile a mean kitchen too.

### **Alf Cusworth**

Nothing will beat Alf, whether it is kitchen fitting, making anything out of wood for the club or practicing his superb model making skills for us. Look round at any job that’s wanted – and there’s Alf.

### **Peter Harrison**

Soon to be our ex-secretary, Peter has proved that if you ask nicely, you can achieve anything. Has made himself older by supervising our Young Engineers but the result is a club loco of which we can all be proud.

### **Stuart Kidd**

As well as assistant to the chancellor, Stuart will plot his way round any obscure wordage in aid of the club. No detail is unimportant. Soon to be secretary, bureaucrats of the world beware!

### **Nigel Penford**

This is the man who can dig a trench and put up a lamp post, plumb the loo, give a Baldwin the Works treatment, mix the mortar, and make sure that 100% is not good enough!

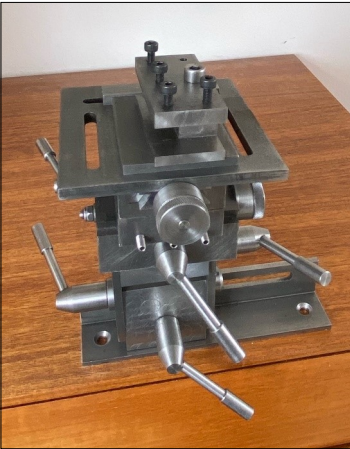
### **John Billard**

Me? I just attempt to do is to keep all the above in order at our meetings and try to remember the press date for PROSPECTUS.

## Lockdown Activity

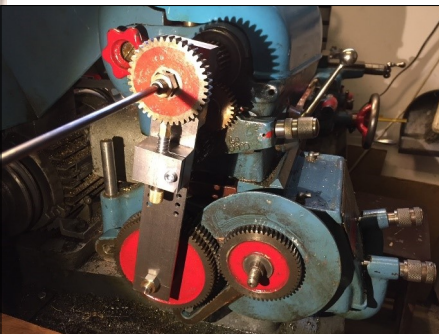
by Stephen Millward

When I was building my Sweet Pea, I avoided being diverted into tool building projects. I did, however, make a note of tools which I should build before embarking on another project. Top of the list was a better tool rest for my bench grinder. I opted for the Harold Hall design, which Model Engineer's Workshop claim is their most popular tool build ever. My preference for lathe tools is HSS and with the new rest my tool sharpening is certainly more consistent. I haven't yet made the accessories that allow endmills to be sharpened.



*Left* shows the “finished” item. I say “finished” because while making the grinder tool rest I realised I could really do with a means of scribing lines on the tool rest feed knobs. To do this, I adapted a recent design in Model Engineer by Alex Dupre for a Myford lathe headstock indexing attachment, which also includes a useful chuck depth-stop. This fits my 1953 Smart & Brown SABEL lathe but finding a flat secure surface to fix the attachment to the lathe was a challenge and my solution was to mount it

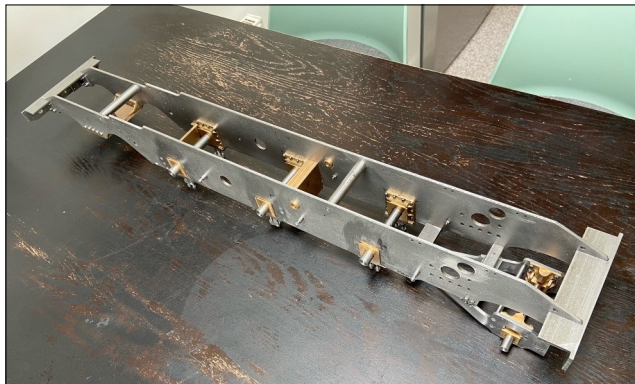
between the spindle and the change wheel quadrant bolt. (*see below and right*). Having said that, I have



yet to scribe the lines on the grinder rest feed knobs, and probably never will, as I've concluded with use that they are probably not necessary!

Having almost finished the Sweet Pea, I realised in Autumn 2020 I would need a new project to keep me occupied through the impending winter lockdown and, as I like picking up bargains on

eBay, I started keeping an eye out for suitable projects. My two main criteria were: a locomotive, not as big or heavy as a Sweet Pea and with outside valve gear. In October 2020 I was the only bidder on a full set of castings, frame material and boiler kit for a 2-6-4 Jubilee Tank loco, which I collected from a model engineer who had originally purchased them in 1981.



So far, I have made a good start on the frames. These were supplied as sheets of 1/8" steel flats, to which I applied engineer's blue and then spent a satisfying evening of marking-out on the kitchen table. These were then sawn and filed in "the old school way", along with some

milling. Photo 4 shows the results. There wasn't enough material for the rear bogie, so I have ordered some laser cut bogie frames. Whilst doing it all by hand is very satisfying, using laser cut parts saves a lot of time and I have also noticed my hands get quite stiff and achy the day after filing. I'm conscious I need to look after my hands if I'm going to enjoy years of model engineering.

Anyway, watch this space for further reports on the Jubilee's progress.

## Tinplate railway

by Terry Wood

During lockdown I remembered I had an old suitcase full of old tinsplate 0 gauge railway track and wondered if I had enough to build some kind of board layout. When I got all the pieces out I found that I could make a small Type 20 layout, I never had enough track to make a complete circle but luckily I had two Type 20 points which could be used to make a complete circle.



The Type 20 Hornby layout was the lower budget type and you can't run the more expensive Type 40 locos on it because the wheels are too far apart but the advantage is that it takes up much less room so its ideal if you want to build a layout that can be easily stored out of the way when not in use.

I made the board out of two pieces of MDF screwed together mainly because that's all they had left at the DIY store due to other people doing that during lockdown and because it fitted in the car! I then proceeded to assemble the track and because I had a set of points in the circle fitted a track branching off it to a station. I was going to base the station on the nearest one to me but seeing as Reading West doesn't have a station as yet I based it roughly on Tilehurst station instead. I painted







the board up with green paint and in the middle of the circle I painted a lake to represent the pond in Prospect Park. The station was made with card and I used transfers for the windows and doors, the track was then screwed down to the board to stop it from moving and I had to twist some of the rails to stop the loco from de-railing when it was going round at high speed which being clockwork and not having a governor it would do nearly every time on its first lap.



I also found some old lorries to park at the front of the station which don't look out of scale with the Type 20 locos. I also found a tin plate carriage to go with the loco but its not Hornby and is very light and it easily de-rails. I also fitted a few trees around the track but they are meant for 00 so look a bit small. The clockwork loco is also very old and doesn't have enough power



to pull a carriage for very long so the next idea I have is to fit a battery powered loco to it but that's a project for next winter.



## **Dennis Packman**

**We are sorry to report the death of Dennis Packman on 19 May.**

His son Richard has written, "He absolutely loved coming down to the club, joining in the banter and making everyone a good cup of tea. Thank you for being a special part of Dad's life that brought him many hours of fun and enjoyment."

We offer our deep condolences to Richard and his family.

**2021 subscriptions are now due  
Rates are unchanged.  
Membership forms are issued.  
Please respond promptly!**



## **MORE CLUBHOUSE IMPROVEMENTS**

**Nigel Penford reports that the new club house water heater is now installed and working.**

Photos Nigel Penford



**.....and here is the result of two days hard work in the kitchen.**

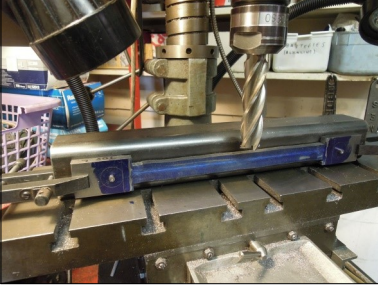


***Support your club.  
Renew today!***

## IN SHOPS THIS MONTH—BUILDING A CLAUD

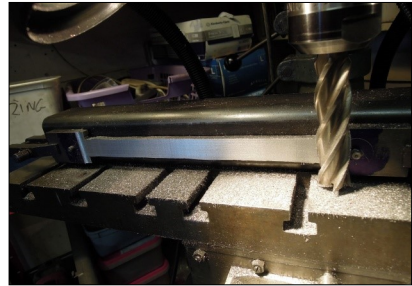
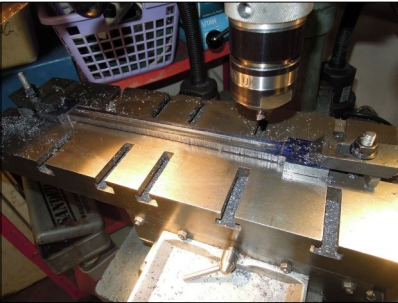
### The Coupling Rods Part 1

This was a long job—but important. With an inside cylinder engine this is the only part of the motion seen going round! With a multi stage operation of this type it became very nerve wracking at the final stages. I could not think of starting again. But here is the sequence with some success at the end.



An early step was to mark out the blanks consisting of 1.25 x 0.375 x 12" mild steel. The centres were found by using a trammel off the axle ends. The blanks were then pegged to a piece of thick square tube to give as much rigidity as possible.

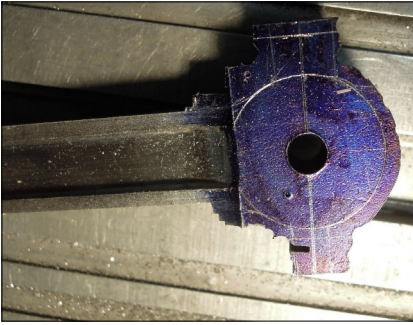
Having already removed as much metal as possible on the bandsaw the rods were thinned along their mid length both sides with a 15mm endmill



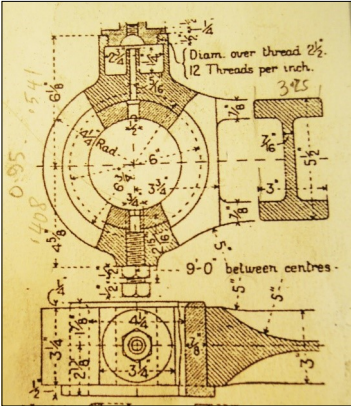
Then the rods were removed from the square tube and the flutes commenced with a quarter inch slot drill along the appropriate length to a depth just under a sixteenth. I had already decided to flute both sides—not many do—as an insurance against error—few will see the inside!

Next was the main fluting operation that took longest of all. I first experimented with a fly cutter, then a tee slot cutter. But I wanted a radius at the inside corner of the flute so it was back to the fly cutter. The tool was set to give the run out at the end. Two passes were required to give the width of flute at a feed depth of 0.0025. The cutter was reground in a Quorn before moving on.





Not the best photo because I took it upside down. The oil box is at the top and opposite is a protrusion to take a set screw to locate the bush. If the bush should rotate lubrication would be lost. This is a little detail that I picked up from the works drawing and is usually missed. (A trick of the light makes the flute appear non-central).



This is my source of information—the original works drawing. Notice how thin the web is—not replicated!

*Part 2 will cover finishing the rods, drilling the eye, rounding the ends and fitting the bushes.*

Photos John Billard.

## DIARY

**Please watch for announcements regarding future track activities.**

**The clubhouse is at present closed for refurbishment.**

***Don't forget our regular Thursday evening Zoom discussions  
1930-2100***

***Please write for Prospectus. Photos welcomed.***

***Comments by RSME members on any subject appearing in  
Prospectus are welcomed by the editor.***

Opinions expressed in PROSPECTUS are the personal views of the contributor and cannot be taken as reflecting the views of the trustees or editor.

**The deadline for the July issue is 18 June**

Contributions may be submitted in hard or soft copy to the editor.

John Billard Old Station House Twyford Reading RG10 9NA

01189 340381 or 07834 998971

john@jegbillard.plus.com