

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

The Prospectus

January 2023



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**Santa's here! Exciting weekends in the cold and wet!
See page 2. Photo courtesy Peter Culham**

**SANTA SPECTACTULARS
SPLASHER BEADING
AN 08 REFURBISHED
SPEED CONTROLLER
SCOTSMAN AT 40
THE END OF STEAM**

A VIEW FROM THE CHAIR

John Billard

Not much from me at the start of the year but I wanted to give prominence to the report on the Santa weekends. This is a huge effort by all involved led by the indefatigable Peter Culham and his family and helpers. Despite ice and rain all went smoothly (once the frozen pipes had been thawed). The thanks from the adults and children say it all. *500 children to see Santa!* Our RSME at its best!

THE SANTA WEEKENDS

by Peter Culham

Firstly, it's only right that our volunteers who attended and braved the extreme weather conditions should be thanked in making sure the event went so well over the four days.

The first weekend and the following Saturday were extremely cold with everything covered in frost. The second Sunday started cold and by lunchtime, the rain had arrived! Early starts, however, saw the gazebos put up and the reception area covered with lights and decorations, before our first visitors started arriving at around 10:30 to get an early cuppa and see Santa arrive by train. With well over five hundred children attending with their parents / guardians, the team who operated the grotto area were certainly kept occupied, and their efforts were very much appreciated. The children were emerging from the grotto with their presents and smiles all round and certainly the adults showed lots of appreciation.

The refreshments bar was very well stocked with hot / cold drinks, mince pies, bakewell tarts and biscuits and a steady flow of those in need of a drink (and to get in from the cold) kept our volunteers busy. And, yes, plenty of washing up to do. The 'cafe' was very well used and the children took advantage of the colouring sheets, and at times, the 00 gauge trains which were running.

As to the enginemens and railway assistants; well done to all. Cold days, wet days, it all happened with even a ray of sunshine now and again, but they provided a non-stop service to passengers who were enjoying the experience. And a mention to the lads on the car park; always an important task, especially in controlling cars over the crossing. Well done. Hopefully the hot soup helped in holding back the cold!

Overall, a good outcome and the efforts have certainly been appreciated by our visitors who have posted numerous compliments and thanks on fb, email, and mobile. Just a few examples follow, without the numerous emojis and Christmas wishes to save space. Thank you to all who gave their time for the children.

Sam. Best experience ever, kids had a magic time.

Sonja We had an awesome time on one of the coldest days. Thank you for

the wonderful experience.

Marreke *Best Santa experience*

Clare *It was a great day*

Sally *Amazing time today with grandchildren.*

Kylie *A huge thankyou. We all had the best time seeing Santa. The children loved it and with children with additional needs, it was so relaxed and enjoyable.*

Angela *Thankyou for making it so special*

Isabelle *Another wonderful year with; you put so much thought and care into the Santa event.*

Jenni *We had a great day, lovely visit to Santa and loads of train rides in the rain ! Thankyou for your hard work.*

Kate *You are the best. You made such an effort to make it special for the kids . We had a great time and thankyou so much for doing the extra weekend. Was so worried kids wouldn't see Santa this year because tickets go quickly. Presents were amazing.*

Jo *Thank you so much for today. My daughter and her friend had a fabulous time and a big thankyou to Hollie for her welcome to them. Sad that the girls were shy in front of Santa but the event starts the Christmas period for us...it's wonderful*

Corrinne *Had a wonderful time enjoying the trains and meeting Santa. Thankyou to all you volunteers for making our day so special.*

Joey. *You all do a wonderful job for the children. Hope you're warmed up now !*

Jacqueline *I had a great time, despite rain. Lovely presents, plenty of train rides, three happy grandchildren.*

Jacqueline *My little boy loved the trains and I think he would have gone round and round all day*

Clare *It was a great day, thank you!*

Zoe I just want to say a big thankyou for such a lovely afternoon. All five children thoroughly enjoyed it and a massive thankyou to Santa. He didn't know when we walked in, that some of our children are autistic /PDA and selective mutism which meant that they were not forthcoming with answering questions. Hats went over faces and one turned away. Instead of making things uncomfortable though, Santa joined in, turned around, asked everyone to do so and that added the element of humour which went down a treat. I can't thank Santa and his helpers enough for giving them such a positive experience We were surprised actually that some of the children went in to the grotto but they are now so glad they did. Thank you, thank you!



Santa's here!

Below - in the cold, but no one cared!



Big smiles all round!





After the cold—the wet!

Still, no one cared! (much)

Photos courtesy Peter Culham



Splasher beading for a 3.5” GWR locomotive

by Alan Broodbank

My current project, a G.W.R. Modified Hall class in 3.5” gauge is, after about 15 years, at quite an advanced stage and recently I was faced with making the brass beading that adorns the six splashers. It is fairly complex in cross section, a sort of distorted “P” (see photo left) and cannot, as far as I can see, be obtained from any of the usual suppliers. So I had to look elsewhere.



The bits-and-pieces box yielded nothing. The brass decorative rim of the dial of the clock in the dining room looked promising but was discounted for obvious reasons (it wasn't long enough).

Next, I tried filing down a piece of $\frac{1}{4}$ x $\frac{1}{4}$ brass angle, soft soldered to a larger piece of angle held in the vice. This actually looked quite good when finished but try as I might I just could not bend it to the same radius as the splasher. Well, it would bend alright but due to the irregular cross-section it always took the line of least resistance and distorted badly. Annealing didn't help and eventually I over-exerted things and it suddenly and irretrievably kinked. So that idea was abandoned too.

Then almost by accident I stumbled across an article in the R.S.M.E library, in a back number of Model Engineer, in particular Neville Evans series on building Penrhos Grange. (M.E. 4 February 2005). He refers the reader to an article by D. Aitkin, (M.E. 3687, 20 August 1982). The method he describes sounded do-able so I decided to give it a go.

First step was to bend a length of $\frac{1}{4}$ ” x $\frac{1}{4}$ ” brass into a circle of the same radius as the splasher. Not having access to suitable bending rolls I resorted to more primitive methods, found an old gear wheel and bent it round that. Plenty of annealing and muscle power required but eventually it was there or thereabouts, and a few judicious taps with a hammer and squeezes in the vice taught it who was boss. It was important to get it as near a true, flat circle as possible, although a small amount of run-out wouldn't matter too much. The two ends of the ring were then silver-soldered together. (Photo right)

Next stage was to get a piece of steel of the same radius on which to mount the brass circle. Here I had a stroke of luck in the form of an old pulley that I found in my might-come-in-useful box. Not only was it of the correct diameter but it also had a handy protruding boss that was ideal for holding in the 4 jaw chuck. And it was steel and would there-



fore take soft solder. One side of the brass ring was cleaned and filed flat enough to soft-solder it to the pulley. Photo 3 shows the ring and pulley tinned and ready for sweating together with a blow-lamp. Please note the



Henley Solon soldering iron! This was used to do the tinning and I have included it in the photo in the hope that it will gladden the heart of Bro. Geoff Theasby, editor of the excellent Club News in Model Engineer. He receives a copy of Prospectus and is a leading light in the Henley Solon appreciation society. By the way, the soldering iron was cold, just in case you were worried that it might set fire to its box. The photo also shows the gear wheel used as a bending former.

Photo left shows the brass ring soldered to the pulley. It was mounted in the 4 jaw on the lathe, centred, faced and trued-up, taking very light cuts to start with as it had quite a few ‘umps and ‘ollers that made for a bumpy ride. When the face was finally smooth and true, the ring was heated up, removed, tinned on the freshly- machined surface, turned over and again sweated on to the pulley, giving a really firm continuous mounting. This was important as the ring will eventually end up very thin and could easily deform under the pressure of machining. **Photo below** shows a stage in this procedure. Apologies that it is a bit out of focus.

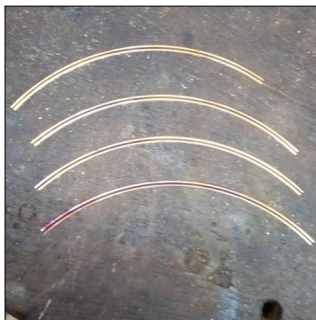
This where the actual shaping of the beading starts. The M.E. article helpfully suggests using a form tool but would you fancy trying to make one of that shape? I didn’t, so I simply used a knife tool and a boring tool to bring it to approximately the right size and shape. This took ages, produced a mountain of swarf and required a slow lathe speed due to the large diameter – anything faster created chatter. Having got it there or thereabouts, and when no-one was watching, I admit to using a fine file to get the shape just right, or at least as close as I could make it.



Photo left shows the turning completed.

It turned out that I could just get four splasher-lengths of beading out of the circle so I had to repeat the whole process described above to bring it to six, with two to spare. It made sense to cut them to size whilst still firmly

mounted on the pulley. I did this with a junior hacksaw and took pains to ensure that one of the cuts was at the point where the ends of the ring had been silver-soldered together – not as easy as it sounds if the silver-soldering’s half decent as I found to my cost in the next step. I also polished them up with emery cloth at this stage



The next step was to de-solder the bits of beading and this is where I discovered that I had misidentified the joint and cut one of my precious beading sections in half. “Oh, bother the silly old thing” I said. Luckily this wasn’t disastrous as I still had 7 to spare, and the two remaining bits might come in useful one day. You never know.

Photo left shows the 4 beading lengths made from one circle, a bonus being that they are still tinned, ready for soldering to the splashers. Soldering to the splashers (**photo left below**) was a reasonably simple job as the degree of curvature was, amazingly, virtually spot-on – phew!

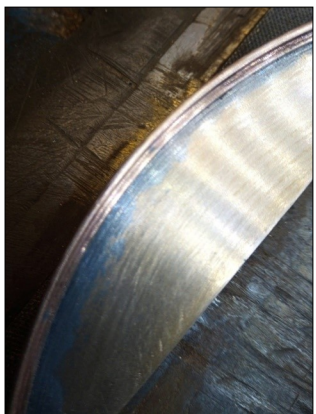


Photo below shows the beading in place on the locomotive – behold the pleasing result! By the way, the name plate was made by Diane Carney and I’m calling it Saint Peter’s Hall because I went to St. Peter’s School in Earley.

P.S. I’ll soon have to think about making the safety valve bonnet and top-feed covers. If anyone can give any advice on this or maybe write an article about it I’d be mighty grateful. (*Any takers? Ed*)



.... and the full size for comparison.



Photos Alan Broodbank

AN ADDITION TO THE CLUB FLEET

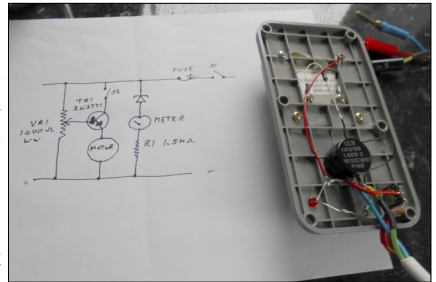
After a complete refurbishment by Mike Manners and Alf Cusworth the club's venerable 7 1/4" 08 shunter has seen the light for use on the ground level track.

Photo
Alf Cusworth



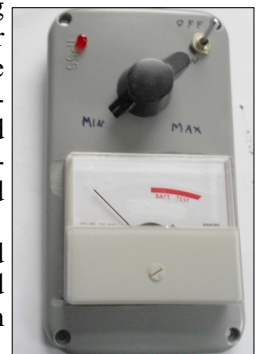
AN ELECTRONIC SPEED CONTROLLER by Terry Wood

This is my new project to build an electronic motor speed controller consisting of a fairly basic electronic circuit using a 2n3771 power transistor connected to a Bosch 12v DC disc motor as fitted to a BMW or Mercedes car cooling system. The 2n3771 has a very high collector current of 30 amps and when its base is connected to a 1000-ohm wire wound pot can be used to control a motor of over 300 watts. I have also included in the circuit a battery condition indicator using a potential divider consisting of a Zener diode, analogue meter and resistor, when the Zener diode reaches 11 volts it starts to conduct and activates the meter, and the resistor gives a FSD from 11 - 12.5 volts this can be changed when used with a loco as required.



ing a potential divider consisting of a Zener diode, analogue meter and resistor, when the Zener diode reaches 11 volts it starts to conduct and activates the meter, and the resistor gives a FSD from 11 - 12.5 volts this can be changed when used with a loco as required.

The power transistor is mounted on a heatsink made from an old diecast box lid which I just happen



to have lying around it may need a proper heatsink in the future when it is powering a loco pulling a trolley and passengers. One problem I never realized was that I was using a plastic box with a curved face and of course the meter is flat, so I had to rub down the face where the meter was using a lisher which makes the box look a little untidy, I've used this piece of electrical power tool before and have never managed to achieve any better results than doing it by hand. The wheels of the loco will be chain driven but of course I haven't started building that yet.

To be continued



SIXTY YEARS AGO

by John Billard

On Monday 14th January 1963 *Flying Scotsman* ran for the last time in BR service on a 1.10 pm train from Kings Cross to Leeds. I had found about this a few days previously but I was supposed to be at school then. I decided that I might bunk off at lunch time and thankfully I got away with it—a story later taken up by the National Railway Museum.

The resulting picture turned out to be one of my better ones. I find it difficult to believe that the engine is now 100 years old. These days I try and avoid the hoo-ha that goes with it.

SIXTY YEARS AGO CONTINUED

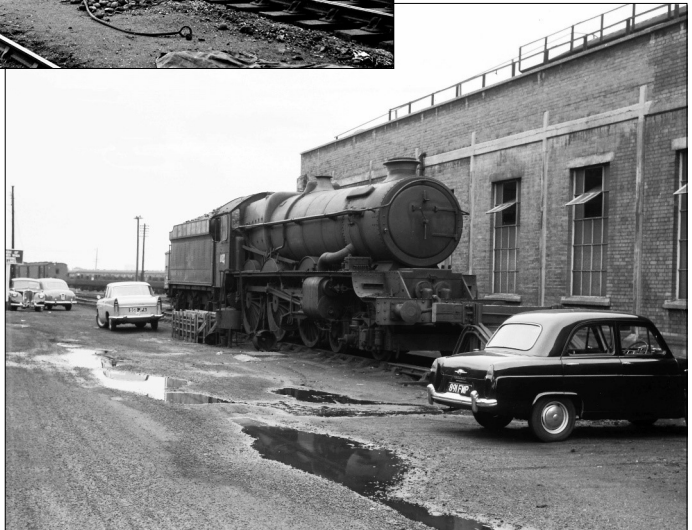
For steam railway enthusiasts like me the end of 1962 was a watershed. It meant the end of the Kings on the Western*, and the Schools and King Arthur classes on the Southern. Other types disappeared for ever as well, such as the elegant LBSCR K class 2-6-0s all withdrawn *en masse*. Swindon Works drastically reduced steam repairs as diesels took over. This was a political change rather than an engineering one as the late 1950s had seen the Kings rebuilt with new frames and cylinders to fit them for another 25 years while Kings and Castles continued to have draughting and other improvements..



Left—lines of withdrawn engines at Old Oak Common.

Right

King Class 6028
King George VI
awaits its fate at
Old Oak Common.



* 6018 *King Henry VI*, although withdrawn, was retained for a Stephenson Locomotive Society farewell special that ran in April 1963. It will feature in a future Prospectus. Ed

DIARY

January 2023

Sunday	1st	Public running	12.00 Setting up 09.30 onwards
Saturday	7th	Club Running	10.30 onwards
Monday	9th	Trustees meeting	19.30
Tuesday	17th	Club running	10.30 onwards

February 2023

Sunday	5th	Public running	12.00 Setting up 09.30 onwards
Saturday	11th	Club running	10.30 onwards
Monday	13th	Trustees meeting	19.30
Tuesday	21st	Club running	10.30 onwards

For club running enquiries please contact mikesinclair118@yahoo.co.uk

WEDNESDAY WARRIORS EVERY WEEK FROM 0930

Note from the Editor. Thank you to all contributors. Please remember that the copy deadline is now 20th of the month and material, unless previously notified, can be held over if received after that date.

Please provide photographs as separate files and not embedded into the text. No pdf files please.

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 February issue is 20 January

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

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