The Oily Rag!

Summer
2016
Issue No 126.

Photo Emily Wilkinson

3.5” gauge I think? Young master Wilkinson tries out his loco on our track in Vivary Park.

The Taunton Model Engineers’ magazine

Contents

From the Editor

Preparations for the Birthday party are now dominating activities within the club. If you are not already on David Hartland's list of helpers, please get in touch. Our "archivist" is trying to collect as much as he can of the history of the TME. Since this a is 70th birthday many early members are no longer with us and we must already be loosing a lot of things of interest from the early days. If you can help please get in touch. A chance approach from the son of a member from the 1960s lead to some gaps being filled Our archivist reports on his visit to this former member.

Name plates, number plates and makers plates add a lot to many models. I was not sure if including two articles on the subject in the same issue was a good idea but since they do cover different aspects (and I was running short of copy!) I decided to go ahead.

The typical model engineer is an older man. So Robert Dawes' article on how he tackled a problem associated with ageing is both interesting and particularly relevant.

John

Chairman's Notes

By Mike Johns

Members had a pleasant afternoon on Easter Sunday in Vivary Park hosting our guest from the Children's Hospice, SW. Our donation was duly presented to Paula Hullett as intended and TME subsequently had a news item in the Somerset County Gazette covering this, our successes in 2015 and anniversary plans for this coming July.

Unfortunately the Easter weekend was marred by not being able to run at Creech the following day when we had insufficient staff on site. The TME ‘Rules Governing Public Running’ on pages 16-18 of the TME Handbook are quite specific in stating that a Duty Steward and at least 3 others have to be available to assist before running can start. This applies to both railways.

Although a first occasion for Creech (we had a staffing problem at Vivary Park some years ago) we need to try and avoid a recurrence. This was discussed on the AGM evening after dealing with the formal business when a number of members indicated that they would benefit from training to join in. There was also some discussion on possibly rostering our resources but this is dependent on having sufficient members prepared to attend reasonably regularly, particularly as Duty Stewards.

The basic operating instructions are contained in the Handbook but experience of their application and practice can only be acquired by attending running days and working alongside those members operating the public services at those times. The practices and procedures applied vary slightly on each site and are best learnt on site rather than in formal training sessions.

In addition we arrange club running evenings in Vivary Park in summer months while members are free to use the Creech facilities at any time provided at least 2 members are present, or Thursdays when there are working parties on site. These give opportunities for members wishing to join in to learn how to use the railway and/or become a driver, etc. without the hassle of public running.

We all need to remember both railways are Club facilities provided on behalf of all members but they do bring commitments, particularly when public events take place. These are when we need willing or aspiring active members to turn up and help please.

News from Creech

By Mike Johns

Apart from Easter Monday the running season has started well with up to 3 operational locomotives on hand each day. Steward numbers have fluctuated but it has been quite pleasant on occasion to be able to take time to talk to other or potential new members or even continue with projects in the workshop. Having extra people on site has helped create a more relaxed atmosphere, helped by Diana Fathers' stalwart efforts to keep everyone fed and watered. She has also welcomed having hot water for washing up this year!

The track is in reasonable condition although there are some maintenance needs to take care of to keep it in good order. Plans to incorporate some alterations prior to our Anniversary day have had to be put on hold – the present team has plenty to do in getting everything else ready. Grass cutting has to be regularly maintained and cut short where we intend to put the marquees. This also applies in the station area and steaming bays.

The latter have yet to be equipped with local watering points but the new water standpipe at the station has been commissioned and is demonstrating its worth. It is regularly being used by steam locomotive drivers in preference to the water hose provided by the turntable.

Thanks to Tim Griffiths the ride-on mower is more reliable (at present) and in regular use. Hedges are being cut back by Mike Pinkney where necessary but there are outstanding fence repairs to be taken care of. Tony Gosling continues with his work with new ballast boards plus some re-ballasting as he goes. Mundane jobs which each can always use help with.

Inside the shed John Pickering and Andy Cooke have assembled the 6 bogie frames needed for the additional riding vehicles ready for the wheels, prepared by Dave Wood, bearings and springs to be fitted. Unfirtunately no one has come forward yet to take on the making of the brake or buffer parts needed in spite of 2 previous appeals. Whilst we can manage without buffers (having bar couplings) we should have operational brakes to run 3 coach fully laden trains safely.

David Hartland has almost completed refurbishing the vehicle hoist inside the shed and is now concentrating on the preparations for the anniversary day. There is much to be done so if you can spare some time please contact David and come along to help.

Report from Vivary Park

By Diana Fathers

Easter Sunday saw the start of the new season. Unfortunately I was unwell over Easter (having made 4 dozen rock cakes for both Vivary & Creech!), so I am grateful to Dave Wood for passing on the news and keeping me up-to-date. I'm told the weather was "sunshine and showers – but too many showers". Even so, there was a good crowd and 224 tickets were sold. The intrepid drivers, all with electric locos, were Dave, Jon and Julie and Bryan, Phil being away on holiday. They must have been really busy and they ran out of timetables.

The following Sunday, being the first in the month, the weather was a little more accommodating, and 254 tickets sold.

Glorious weather shone on us for the next running and the queue stretched around the pavilion all day.

We were a bit short on helpers so it was somewhat frantic at the paying end of the queue where I had to operate the entry and exit gates as well as selling the tickets and minding various bits of property. And we sold an amazing 350 tickets! The good weather has continued so far and with it come the passengers! Sadly, we are missing two of our regular stewards – John Henson and John Hancock, who are no longer able to come and we wish them well. We were all glad to see that both David Spicer and Barry Baxter are on the road to recovery after their respective spells in hospital, long may it continue.

Waiting for the whistle.

The Tuesday evening get-togethers have now started again; it's such a friendly crowd at Vivary, so if you haven't been before, give it a try.

One item of significance: We may be in danger of losing our hut at Vivary, as there are plans to change it into tea rooms, with no room for our equipment or tea-making. Phil Mortimer has drawn up a petition which has already gained a good number of signatures but if you get the chance, please sign it too!

I will try to keep you posted but the steam rally season is now underway so the reports for the summer months may well be a bit sketchy, for which I apologise in advance.

Finally I hope you like the pictures of someone who is passionate about railways and our two tracks. Sent to the editor by Emily Wilkinson.

Creech Miniature Steam Gala.

By David Hartland

This event is coming closer – Saturday 23rd July. This is our Club's 70th birthday and we hope that all members will be able to come along and celebrate. Your committee has been working on the arrangements now for nine months which seems appropriate for a birthday event. The final details are emerging now for the day – basically it will be an exhibition of members' work coupled with a major running day at the Creech Track and with traction engines in the park. Expect a steam rally atmosphere! The exhibition opens at 10.00 to the public, and closes at 4.00 but after that it is intended there will be a real birthday party for members and guests only, which will last on into the evening.

This is going to be a big day, and to make the best of it, we need YOU there! All members will have free access to the exhibition and unlimited train rides, as well as the chance to bring a 7¼in engine to run (or a 5in engine for some of the day) but there is lots to do during the day, and setting up on the Friday and clearing up on the Sunday, so we hope that all members will be able to offer some time over the weekend undertaking some staffing duties. A master Roster is being compiled, comprising all sorts of jobs from Exhibition Steward (hovering around the displays, chatting to visitors); Fire Watchers (sitting along the lineside watching out for fires); Ticket Sellers (for those who like handling money); Platform Stewards (for those who like blowing the whistle) and the inevitable but vital Car Park Controller (for those who like giving drivers hand signals). These jobs will be allocated on a shift basis, for two hours each, so there will be plenty of off-duty hours to enjoy the fun.

The exhibits themselves are being coordinated by Bill Edmondson

and David Hartland and on the day by Lee Kimber. Do let them know if you have something to bring along which is not already listed or might be of interest – particularly anything completed in the last five years since the last TME exhibition.

If you are bringing a locomotive to run, then please contact Phil Mortimer who will be hosting the visiting engines on the day.
If you are able to help in any capacity and have not already been 'collared' for a specific duty, then please contact David Hartland. The Master Roster will be published on the website, and will be on display on the Friday and Saturday morning so there is plenty of opportunity to add your name and fill up those gaps in the shifts. The address, if you do not already know it, is the Recreation Field, Hyde Lane, Creech St Michael, Taunton TA3 5DW. If you are driving, please try to share a motor car with others, because space for cars will be limited.

Finally, we have called this birthday party a 'Gala' day, with some great irony - the name is a shortened version of 'Gallows Day', the occasion of a Public Execution. If there is anyone coming to our Party expecting a literal enactment of the Gala name, they are likely to be disappointed…..

Tom Jewell reunited with club locomotive "Jack gardener" (aka Iris)

by the archivist

Earlier this year the club received an enquiry from Mike Jewell of Exeter. He was trying to find out about how his father Tom had enjoyed several years' membership of TME in the sixties.

Tom had been one of the team who regularly took the club locomotive and portable track (the previous incarnation, not the swanky one we have now!) to fetes.

Tom Jewel driving the club's "Iris" in the 1960s

A visit was made to Tom in mid-May and Iris taken along for him to reacquaint himself. He was well pleased to see the loco again and had many memories of happy days spent operating the engine at fetes. Mike Pinkney put together a DVD of our recent activities to give to Tom so he can bring himself up to date with how the club has fared in the intervening years.

Tom isn't in the best of health but he keeps active with a 00 gauge model railway in a garden shed.

If anyone remembers Tom, contact details can be made available to you via the editor.

Re-united half a century later.

More from the archives. Annual dinner at the Burlington restaurant.

Model Engineers Dine

Taunton Model Engineers' Club at their annual dinner at the Burlington Restaurant

Unknown	Unknown	Invisible	
Invisible	Don Hancock		Keith Sollway
Invisible	Mrs. Hancock		Mrs. Sollway
Peter Logsdon	Mrs. Jewel		Rose-Marie Whiting
	Tom Jewel		Noel Whiting

BAGNALL "SANFORD" (the sequel)

Bill Edmondson

To complete the locomotive, one small component had to be added – a small brass plate attached to the motion plate which declares the patent of the valve gear by Ernest Baguley.

I have done some etched plates over the years, including just one successful attempt at using a photographic negative of the image overlaid onto the brass which has been treated with photoresist. It did work, but I found it very tricky.

Initially I couldn't find a trader to make these plates for me, however an unexpected sequence of events came to the rescue. With a strong interest in all those narrow gauge railways in Wales, I regularly look at the appropriate websites. Early in 2015 looking at the detail for a gala based at Dinas Station on the Welsh Highland Railway, I noticed that a Tom Dauben was exhibiting.

The Baguley valve gear on "Sanford" and the plate.

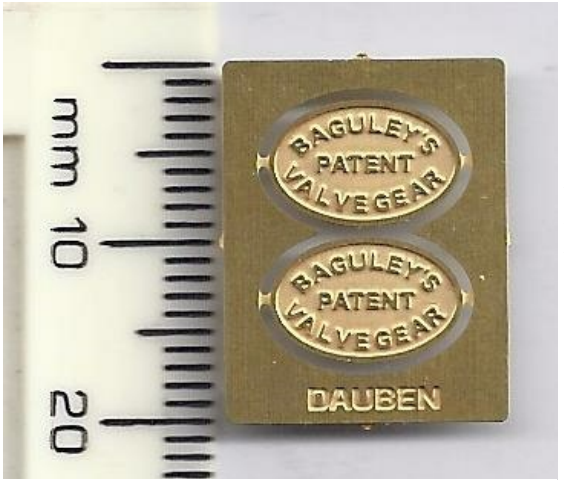
Now probably to the majority the surname Dauben will mean nothing, but older members will tell you all about Ron Dauben, a close friend of Noel Whiting and others. Ron held various posts on the TME committee and was very well liked – a gentle man. He had a son Tom who we knew as a teenager. Then, in the 1990s, sadly Ron died prematurely and Tom and his mother moved away.

Around the same time, as the gala on the Welsh Highland, I'd made contact with Chris Tilley who runs his own garden gauge railway at Bishops Lydeard. In conversation Tom's name came up; Chris knew all about him as it seems Tom has become well immersed in

miniature railway modelling – he is for example editor of the 009 Society magazine. Through Chris I was able to contact Tom. He is now married to Emma and in late 2015 they moved from Kent to Devon. Of particular interest to me is that together with a couple of friends Tom runs a small model railway supply company "NARROW PLANET" Google will soon find it. Prominent on his website, they advertise that they are able to supply etched plates – both off the shelf and bespoke.

You can guess the rest; Tom readily agreed to make two plates for me – they are 10.8mm long by 7.2mm high on 0.6mm thick brass – scaled down from the real thing.

To fit them, I silver soldered two 10BA bolts into a thin piece of brass, filed the heads off flush, and then soft soldered the Baguley plate on top. This avoided needing to drill the plate itself – if I had I would have been asking David Spicer for some clock making screws – I have 16BA and even those were too big to appear on the face of the plate! A bit of red paint and job done.



The plates, as supplied.

They are not immediately obvious on the locomotive, but if you notice them, they help with identifying the otherwise not well known valve gear.

Tom has agreed to write something for the Oily Rag when he has time.

And ready to be fitted

Our making contact reminded him of all sorts of happy memories of TME. Indeed he asked if the K4 loco that his dad had begun had ever been finished. I was able to send him photos of Bob Wilkinson with the very machine at Vivary Park – Tom was well pleased. It would be nice if Tom and Emma could visit us one day – I am sure they would get a warm welcome.

Etching your own name and number plates

By Robert Oldfield.

I had the name and cab side plates for my Hunslet made by Diane Carney, and very nice they are, too. Unfortunately, by the time I decided that a works plate would look good on the tender, she could no longer offer the service. A trawl on the internet produced an article on etching jewellery, and in another, a technique for producing miniature steam loco name plates. Printed circuit boards have been produced using similar techniques for years. The cost of materials is very low compared to commercial plates, so it was worth a go.

Firstly, the chemistry. A piece of copper (or brass) exposed to Ferric Chloride solution will be gradually dissolved by it. The rate of etching is affected by temperature and the orientation of the workpiece. The bits you don't want dissolved - the shiny bits on the finished plates - need to be covered by something impermeable (the "resist"). The etched bits will usually be filled with paint. The good news is that Ferric Chloride is relatively safe to handle and available at Maplins, or on the internet.

One of the Hunslet plates. (pic1)

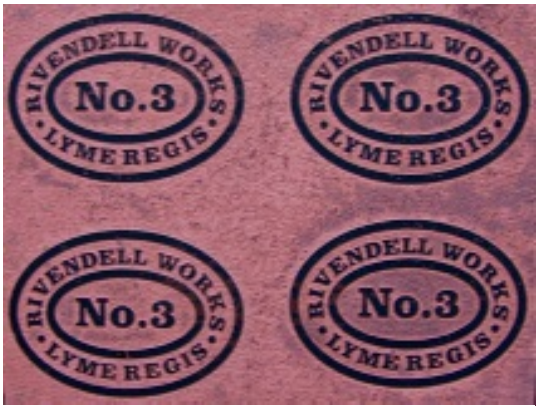
In the "old days", the design was photographed into a pre-sensitised surface. Nowadays, there are alternatives - I used a cut-vinyl mask for the big Hunslet plate, which gives a good, sharp result even with a deep etch on 1/8" plate. However, the technique I used for the much smaller 5" gauge plates uses a special transfer paper which is printed on a laser printer or photocopier, and this is the one I will describe. The transfer paper is known as Press'n'Peel Transfer Sheet. Again, I believe Maplins sell it, but I got mine direct from the makers in Canada via e-bay for considerably less.

So, to business. Start with the design - a graphics or CAD computer program will make light work of this. If the design is simple (text in a box) a word processor may do. Avoid ornate typefaces if possible. Scale the design up or down and print it right-way round on ordinary paper. Cut out the results and stick them in place on the model as a final check. Then mirror the design - this is vital - so the resist will be the right way round on the etched plate. If you have a laser printer, print the mirrored design straight onto the matt side of the transfer paper. If not take a paper print and get it photocopied onto the transfer paper. Tip: you don't need to use a whole sheet of transfer paper - just Sellotape what you need in the correct place to a piece of plain paper.

Prepare a sheet of brass to a good surface finish and degrease it with acetone or similar; 1/16" thick is about right for 5" gauge, 1/8" for 7.1/4". Leave a good 1/4" border. Tip: allow for a few "spoils" - if you do, you probably won't need them! Then, with a domestic iron set to around 325 degrees/2 blobs/polyester, melt the toner to the transfer paper and to the brass. Tip: a sheet of plain paper under the iron will help prevent sticking; newspaper under the brass will stop an indentation in the ironing board cover and prevent the ire of she-who-must-be-obeyed. Then, when the brass has reached iron temperature - 2 or 3 minutes or so, lob it into a bowl of water and the unwanted paper will miraculously float free.

Plate ready for etching (pic 2)

If it doesn't a gentle tug should do the trick. You will now have a plate ready for etching. (Pic 2).



Etched plates (pic 3)

The Ferric Chloride solution may need diluting a little, depending on your source. Fill a 1kg plastic margarine tub about half way and raise the temperature to around blood heat for a faster reaction. I used a small electric plate warmer (boot sale, 20p). Cover the back of the brass plate with plastic sticky tape (so it won't get etched), then fasten the plate to the underside of a 500g margarine tub, resist side down with PVC insulating tape, using the 1/4" borders you left. Why? you may ask. Well, simply dunking the plate at the bottom of the solution makes it difficult to retrieve to check progress, and the sludge accumulates on it, potentially leading to undercutting. By floating the plate the sludge falls away and you can check progress in a trice. "Cooking" time will be at least 1 hour, possibly 4 or more depending on the job. When you are happy with the depth of etch, just wash the plate in water. If you then need to pop it back for a bit longer, no problem. (Pic 3).

Scrub the resist off the plate with wire wool. You will then have an etched plate (Pic 4) Note that the etched portions have a slightly mottled surface, and that the raised bits are copper-coloured. The copper is a (hopefully) thin layer of semi-etched friable material caused by the slight porosity of the toner; remove it back to shiny metal with emery cloth.

If you use a vinyl mask method, you'll have clean brass from the start. (Pic 1).

Plates with the resist removed (pic4)

The cutting and finishing is up to you. I cut the individual plates out with a bandsaw and finished to size with a linisher (OK a belt sander clamped on its side to the bench). If you are using screws to fix the plates, now is the time to drill the holes. Tip: include the fixing holes in the design as full stops - then you'll know where to drill after the plates are etched. Then etch prime the whole front - don't worry about masking off - and spray paint as required. Tip: let the paint dry thoroughly! The final stage is rubbing the excess paint away with emery to leave the shiny brass. Fit and enjoy. (Pic 5).

Robert's Simplex with the plates in place. (pic 5)

" ON THE FOOTPLATE"

By Ray Rolt

One day my father said casually, "I've arranged a footplate trip for you next Saturday. We have to go over to Highbridge Station for a trip on a branchline!" I was 14 at the time and had had an interest in steam locomotives since I was 6!

How had he managed to arrange this? He had no railway connections or involvement in engineering, that might have indirectly helped in this. He had taken up beekeeping and worked in the Apiary at 'Rothamstead Experimental Research Station', involved in work on pollination, before taking up the Post of "County Beekeeping Instructor" for Somerset, how could this have helped? The link was the fact that many railwaymen apparently kept bees!

The starting point puzzled me, as Highbridge was just a station on the Great Western line to Bristol, so where was the branchline? I was vaguely aware of a line that crossed the main road through Highbridge, that appeared to serve sidings to a wharf on the river Brue, but assumed that this just connected to the mainline.

On the Saturday, we duly arrived at the main Highbridge Station and purchased a day return ticket to Evercreech Junction, as had been instructed, and on going onto the platform crossed the mainline on the concrete footbridge, following the sign to Highbridge East Station!

Now all was revealed! There were in fact two stations, with the

tracks at right angles, forming a level crossing, with a single track crossing the double track mainline and leading to the road crossing in Highbridge already referred to. This track in fact extended beyond the wharf sidings and continued to Burnham on Sea, ending on the seafront. There were curved connections at the crossing to both the mainline tracks, all controlled by the mainline signal box. Rail crossings on the level between independent railways was quite rare in this country.

The line that I was in fact going to travel on was the Somerset & Dorset Joint Railway, formed by the linking of the Somerset Central and Dorset Central Railways which in turn linked with a new railway running from Bath to Bournemouth West, which formed the mainline with links to the old Midland Railway, using their Bath Green Park Terminus, in the north, and the London & South Western Railway in the south. The section of line that I was going to travel on was the branchline that connected to the mainline at Evercreech Junction.The final name, the S & D J R, came about when these expansions failed to create the traffic anticipated and the railway was jointly leased to the Midland and L.S.W. Railways, with the stock jointly supplied by the two companies, the locomotives by the Midland and the rest by the L.S.W.R.. After the 1923 Grouping they became the L.M.S. and S.R., finally becoming the Midland and Southern Regions of British Railways.

The ‘Highbridge branch’ was the ideal line for ‘unofficial’ driver training, due to it’s remoteness from large centres of population and light passenger traffic. Many happy summer Saturdays were spent on the line during the next six years.

When we arrived at the station, which had two through lines which converged into one for the crossing and a bay line between two platforms from which trains to Evercreech Junction usually started, we met Ron Andrews who was the driver. Being a beekeeper meant

that he learned from my father of my keen interest in steam locomotives, hence the invitation. When he realised that this was more than just a ‘novelty’ experience for me, he treated me in the same way as he would a fireman training as a driver.

A young Ray on the footplate.

Ron was ‘Somerset bred’ and followed the family tradition of working on the railway, his father working in the Booking Office and a brother also working on the footplate. He had a ‘jovial’ disposition, I never saw him angry, and he was well known to railway enthusiasts, who used to give him prints of the photos they had taken, when they returned. It was thanks to this that I now have two photos of myself on the footplate, one being on my first trip wearing an oversized pair of overalls with the fireman’s cap on,

which he had put on my head. They gave him the “nickname” of “Chummy” Andrews, and he is featured on Pages 106, 127 and 128 in “Heart of the Somerset & Dorset Railway” by Alan Hammond.

For the first few trips I just enjoyed the ride and observed all the aspects of firing and driving the locomotive and was encouraged to get the feel of handling the regulator when a suitable opportunity presented itself. Then began the serious tuition. The standard procedure for firemen gaining experience was for the driver to take over his duties, when conditions allowed, leaving the fireman to familiarise himself with handling the regulator, brakes and the reverser, used to vary the valve travel to give different amounts of “cut-off” and control admission of steam into the cylinders, all under the driver’s instruction. This would be supplemented by attending ’mutual improvement’ classes to learn the theory and technical aspects, and the “Rule Book” When the driver was satisfied that he was competent, then he could take the necessary examination and, if successful, would become a “Passed Fireman”. This meant that if there was a shortage of drivers, he could be rostered for duty as a driver, probably on shunting or goods duties. When a vacancy occurred on the “Shed Roster” for a driver he could apply for the post. As there could be a long delay at his present Depot, he was free to apply for vacancies that may arise at other sheds.

Based on my personal experiences, I shall cover these under the following headings:-

“The Art of Starting” - getting the train on the move.

“The Art of Stopping!”- whilst failure to get the train started is embarrassing, failure to stop it could be a disaster!

“Learning The ’Road’”- this covers knowing what is ahead, where the signals are and where to stop.

Steam Lawnmower – some detailed improvements

By Steven Schlemer

I'm managing NORMAN's fire much better now using a combination of beans and larger, 40mm coal, and can keep the fire in and maintain a working steam pressure for some time; she cuts the grass very nicely and keeps Jane amused when I execute full speed turns at the end of each swath. The lawn needs to be hard and flat and the grass needs to be dry.

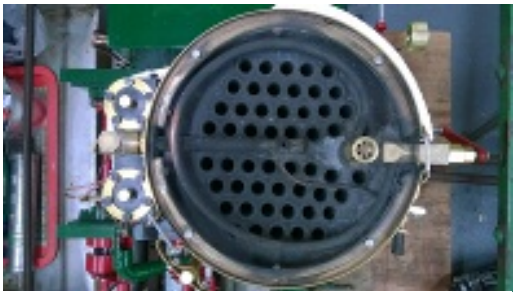
I've also recently made some detailed improvements. If you look back at the pictures in Oily Rag issue 120, you'll see a nasty, white plastic box jammed between the dog clutch levers to catch the oily condensate from the cylinder drains. This has been practical but not in keeping with the rest of the machine.

Viewed from the left the cylinder drain collector pipe and the galvanised bucket

A friendly plumber made me a collector from 28mm pipe, a 90 degree bend and reducers down to 15mm. The larger end fits against the cockpit drains, where they are brought together at the

single drain cock and the smaller end drains into a nice little galvanised bucket bought from a florist supplier. I have these buckets in 160, 90 and 60mm diameters. The larger end of the collector has an aperture so that I can see the condition of the water or steam exhausted by the drain cock. The assembly is painted green to blend into the chassis and the aperture is red to provide some contrast to view the exhaust. As with the rest of the machine I used etching primer, two undercoats and two top coats.

I've also added some steam pipe lagging. There is about 600mm of steam pipe in the smoke box of NORMAN's vertical boiler between the safety valve and the regulator. This must dry the steam a little. Then after the regulator, outside the boiler, there is another 600mm of 10mm steam delivery pipe to the valve chest; this must lose temperature and pressure and wet the steam. I wanted to lag this section.



Viewed from above, the blower pipe, steam delivery pipe and exhaust pipe inside the smoke box.

I couldn't find any suitable material in model engineering suppliers and looking on a model engineering forum I saw that painted, domestic, cotton string was recommended. Via Bill, I sought advice of a few TME members who endorsed this treatment. Thank you, gentleman for your advice. I have now applied it to the steam delivery pipe, to a short external section of exhaust pipe, to a short section of the blower pipe before it enters the smoke box and to the steam pipe to the whistle.

The string I used was good quality, smooth, 100% cotton, just over 2mm in diameter.

It's easy to estimate quite accurately the length required for each section.
It's easier to remove the pipe and wind on the string by rotating the pipe, keeping the string tensioned with your foot. Start by laying about 20mm of string along the pipe and trapping it with the first ten turns. Finish with three half hitches, effectively a double clove hitch, all pulled really tight.

Viewed from the right, the steam delivery pipe and exhaust pipe lagged as described.

If you can't remove the pipe, you'll need to make a shuttle to hold the full required length of string and pass it round the pipe each turn. I used a curtain rail bracket from the scrap box that happened to have a convenient jammer on the end. A piece of dowel with a saw cut at one end to jam the string would do as well. It's really important to jam the string otherwise you can get in a real mess.

The longest run of pipe I did needed over 300 turns. I had black, high temperature paint but thermodynamically, white would be better.

A shuttle for winding string on pipes still attached to the engine

I chose gloss radiator paint and have applied two coats.

The result certainly looks the part, whether it makes much, noticeable difference in performance, we shall see.

Improved lighting on a milling machine

By Robert Dawes

Bill Edmondson has asked me several times if I would write something for The Oily Rag so here goes. I hope you may find it interesting.

My age is creeping up on me and for some time now I have found that it is becoming harder and harder to see what I have so carefully marked out.

To help me with this I bought the Microscope kit that Hemingway does. For those who are not acquainted with this device it consists of a microscope on a number two Morse taper which fits into Morse taper socket on a machine, a milling machine in my case. Inside there is a prism so that the viewing lens is at right angles to the axis of the machine, so I can stand in front of the mill and if the microscope is the correct distance from the work, the work will be in focus and I can look down on the work and see all those accurately scribed lines.

There is a reticule, a piece of glass with a cross marked on it and it is set in the microscope so that if a criss cross on the work coincides

with it, that criss cross is in the centre of the machine.
All this worked out very well. The only trouble was that I could only see one of the criss cross lines on the work. One was lovely and shiny and easy to see. The other one often appeared to be black and was rather difficult to find.

The microscope and LED lights on my machine.

I have an elderly friend who knows all about scientific things and he vaguely suggested that “polarised light” might be the answer. When questioned further on the matter he thought that it might be possible to use the lens from special sunglasses but seemed to be disinclined to be more specific. Since this didn't seem to be particularly helpful I decided to think about the problem for myself. I realised that a line scribed with a scriber consists of a very shallow triangular groove.

I remembered from school physics that when a ray of light is reflected from a shiny surface, the angle of incidence equals the angle of reflection. So, if the groove is parallel to the T-slots on my Milling Machine, light from a source at roughly right angles to that line will be mostly reflected upwards and into the microscope above. Similarly, in the case of a line at right angles to the previously mentioned line, which forms the criss cross that I am locating, light that comes to it from a source pointing general direction as the T-slots will also be reflected into the microscope. I therefore thought that two lights might be better than one especially if they are set roughly at right angles to one another. At about the time I was thinking about all this there was a two part article in ME about machine lights using LEDs and a flexible stalk made from locline. This seemed to me to be just what I needed so I made two of these lights to try them out.

I arrange them so that I could set them in the manner described above and it certainly does seem to make a big difference. I'm not certain that they prove the theory explained above but they do enable me to see my criss- crosses. Holes drilled using this equipment, in general seem to come in the right place. It also helps if the workpiece has a reasonable finish. If there are file marks or other scratches all over the workpiece the scribed lines cannot be easily distinguished.

I was so pleased with these lights that after I had made the two for the milling machine I made a further four. Two of these have been fitted to my tool and cutter grinder and another one to my band saw. I am planning to make some more to fit to some of my other machines.

In conclusion I would like to say how grateful I am to Roger Vane, the author of the Machine Lights article in ME. His design is easy to understand as are his how to do it instructions. He also tells you where to get all the bits and pieces.

OF SHIPS AND THINGS

BY FIREMAN M.N. RETIRED

We left Montreal and sailed up the St Lawrence about 6 hours and stopped at Trois Rivieres (three rivers) to load wood pulp for making newsprint. Number one hold was completely filled with the stuff and did it ever stink, imagine the smell of rotten cabbages then triple it and you have some idea of what it was like, even with the hatch sealed it was still there all the time. There was the usual deck cargo of sawn timber and then we were off.

Just like the Beavercove the decks were awash nearly all the way home. We got into London and paid off on the 6th June.

I was offered a job running the donkey boiler on days, while the ship was in port but I wanted to be as far away as possible when number one hold was opened, so I went home.

When I got home Mum wasn't her usual bubbly self and I must say I was a bit concerned. Two of her sisters were ill and she was a bit worried about that and also granddad who usually lived with us was in a bad way, so I said I would stick around for a while. I didn't relish the idea of being round all day so I would get a job of some sort to get me out.

Gillette Razor Blades wanted a boiler man at the factory on the Great West Road at Isleworth so off I went for an interview, at least it would keep still and not jump around.

The boiler house was quite modern with two small oil fired boilers, but instead of producing steam it was high-pressure hot water.

This seemed strange but by pumping the water up to around Seventy-five pounds per square inch the temperature went up to three hundred degrees. This was then circulated round the works for heating and certain processes.

The works manager took me on a tour of the factory, it was fascinating to see. Coils of high carbon steel strip passing through flattening rolls, then the slot was punched in the centre and the edges were ground to shape, then through a series of furnaces for hardening and tempering before being finally sharpened and packed. The manager also said they were working on using stainless steel to combat the rust problem.

One room we entered had an elaborate ventilation system. There were huge tanks of Carbon Tetrachloride heated by hot water coils, this was for degreasing the final product. Strangely to me there were No Smoking signs everywhere. As Carbon Tet is non flammable I asked why was this? As the smoker draws on the cigarette the fumes pass through the lighted tip and produces Phosgene gas, which then enters the lungs with the same devastating effect as in the trenches during World War One, (that's the end of the science lesson).

After what had been an interesting morning the manager said we have three other chaps to see and we will let you know the outcome.

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The Society is very grateful for their sponsorship.

Vivary Park Running Days

June	**Sunday 19th**		**14:00-17:00**
July	**Sunday 3rd**		**14:00-17:00**
	Sunday 17th		**14:00-17:00**
August	**Friday 5th & Saturday 6th**		**Flower Show**
	11:00-18:00		**(to be confirmed)**
	Sunday 7th		**14:00-17:00**
	Sunday 21st		**14:00-17:00**
	Sunday 28th	**14:00-17:00**	**Bank Holiday**
September	**Sunday 4th**		**14:00-17:00**
	Sunday 18th		**14:00-17:00**
October	**Sunday 2nd**		**14:00-17:00**
	Sunday 16th		**14:00-17:00**
December	**Sunday 11th**	**12:00-15:00**	**Santa Special**

Creech Running Days

June	**Sunday 26th**		**14:00-17:00**
July	**Saturday 9th**	**12:00-17:00**	**Party in the Park**
	Saturday 23rd	**10:00-17:00**	**TME Open Day**

August	**Sunday 14th**		**14:00-17:00**
	Monday 29th	**14:00-17:00**	**Bank Holiday**
September	**Sunday 11th**		**14:00-17:00**
	Sunday 25th		**14:00-17:00**
October	**Sunday 9th**		**14:00-17:00**
	Sunday 23rd		**14:00-17:00**
December	**Sunday 18th**	**12:00 15:00**	**Santa Special**

Meetings Programme

Tuesday June 14th	**Clublec 2016. Vivary Park 6.30pm. If you would like to participate, please contact David Hartland**
Tuesday June 21st	**Visit to Isle Abbots railway**
Tuesday July 5th.	**Supacat Dunkeswell 6PM – detail to follow**
Saturday July 9th	**'Party in the Park' - Creech Public Running Extended running times**
Tuesday July 19th	**An evening at Vivary Park**
Saturday July 23rd	**TME 70th Celebration Open Day Creech Public Running Extended running times**

Tuesday August 2nd	**Barbecue at Creech St. Michael**
Tuesday August 16th	**Visit Shute Railway**
Tuesday September 6th	**Mark Davis – his wide ranging model engineering and craft skills**
Tuesday September 20th	**Voyage 43 - the work of a British sea going engineer – Bob Bramson**
Tuesday October 4th	**The Harrison RAS Regulator update – David Spicer**
Tuesday October 18th	**Lyme Regis Boat Building Academy – Yvonne Green**
Tuesday November 1st	**Auction Night**
Tuesday November 15th	**Quiz Night – Dick Whittington**
Tuesday December 6th	**Slide Show & Talk – Peter Triggs**

Subscriptions

Ordinary Membership is £30 with a further £5 for spouse or partner. Family membership £35 Junior Membership £5

Membership Secretary contact details—see inside front cover. If renewing by post, please enclose S.A.E. for Membership Card

The views and articles featured in this magazine do not necessarily represent the views of the Committee, Officers and Members.

Bogie axle boxes

Tender axle boxes

The water scoop

Parts for Chris Orchard's very fine 5" gauge GWR Bulldog