



NEWSLETTER OF THE COLCHESTER SOCIETY OF MODEL & EXPERIMENTAL ENGINEERS LTD

No 54

Spring 2019

Activities since Autumn LINK No 53

3 Nov: Night Run

This was a very successful evening with members and the immediate neighbours enjoying the benefit of a fish & chip van on site and the fireworks at the end.

9 Nov: Footplate experience

B Upson

Brian gave an enlightening insight to his time as a fireman on main line engines recalling how arduous it could be and yet thoroughly enjoyable with a few amusing incidents.

23Nov: Prince of Wales

R Morland

Bob Morland explained how the P2 Steam Locomotive Company (P2SLC) has been established to develop, build and operate an improved Gresley class P2 Mikado steam locomotive for mainline and preserved railway use. The engine No. 2007, *Prince of Wales*, will be built at its Darlington Locomotive Works and fitted with additional water capacity as installed on the previous new build Tornado. Progress to date includes the erection of engine frames, all wheels machined and ready for fitting to axles, hornblocks, axleboxes and cannonboxes cast and machined and the cab built.

The Gresley class P2 2-8-2s were the most powerful express passenger locomotives to operate in the UK. They were designed by Sir Nigel Gresley for the London & North Eastern Railway to haul 600 ton trains on the arduous Edinburgh to Aberdeen route. Six class P2s were built in 1934-36 but sadly the design was never fully developed and they were rebuilt by his successor Edward Thompson into ungainly 4-6-2s in 1943/4 and scrapped by 1961.

15 Nov: Long travel piston valves

R King

Robert discussed the work that had been going on in refurbishing the engines on the Bure Valley Railway and showed pictures of the modifications to the valve chest and steam pipes to improve the efficiency of the engines. So far they have managed to double the output power which means less coal being consumed. Also plain bearings are being replaced by needle roller bearings to reduce the amount of lubrication required.

29 Nov: Colchester railway accident

I Pryke

On the 12 July 1913 at 12:56 in the afternoon an express train from Cromer to London, consisting of a S69 4-6-0 engine No 1506, tender and 12 coaches, was running through Colchester Station on the up main line at 40 mph, it came into collision with the tender of a T26 2-4-0 light engine, which at the time was moving slowly forward on the same line. The crash occurred through a combination of signal error with incorrect use of a Sykes key and failure to operate the use of rule 55 by the fireman of the light engine.

Tuesday Junior Club

These get together days for members' grandchildren, and their friends, to enjoy driving electric and steam locos during the school holidays will commence again starting during the Easter break on the 9 April and then on through the year until the Autumn half term.

Sweet Pea

When Geoff King came off the committee last year (after over 40 years' service) he also elected to give up looking after Sweet Pea, one of the clubs locomotives.

A new team was formed with Gordon Ager in overall charge whilst I volunteered to do some maintenance on the hard worked engine, and Graham Willmott agreed to repaint it in maroon. The locomotive is now locked in its box. A key is held by Gordon Ager and myself with a third key held in the key safe so it should be available if one key holder does not turn up. With the engine now being painted we want it to be kept clean, smokebox and tubes swept and the paintwork wiped. (a flue brush is locked in the box)

Geoff would still like to do driver training, so come the Friday summer evenings please see Geoff if you want to drive a steam loco. I would like to thank Geoff for all his hard work looking after Sweet Pea for such a long time.

P.S. Does anybody want to look after Butch?

Dave Hammond

Wednesday Wrinklies Report

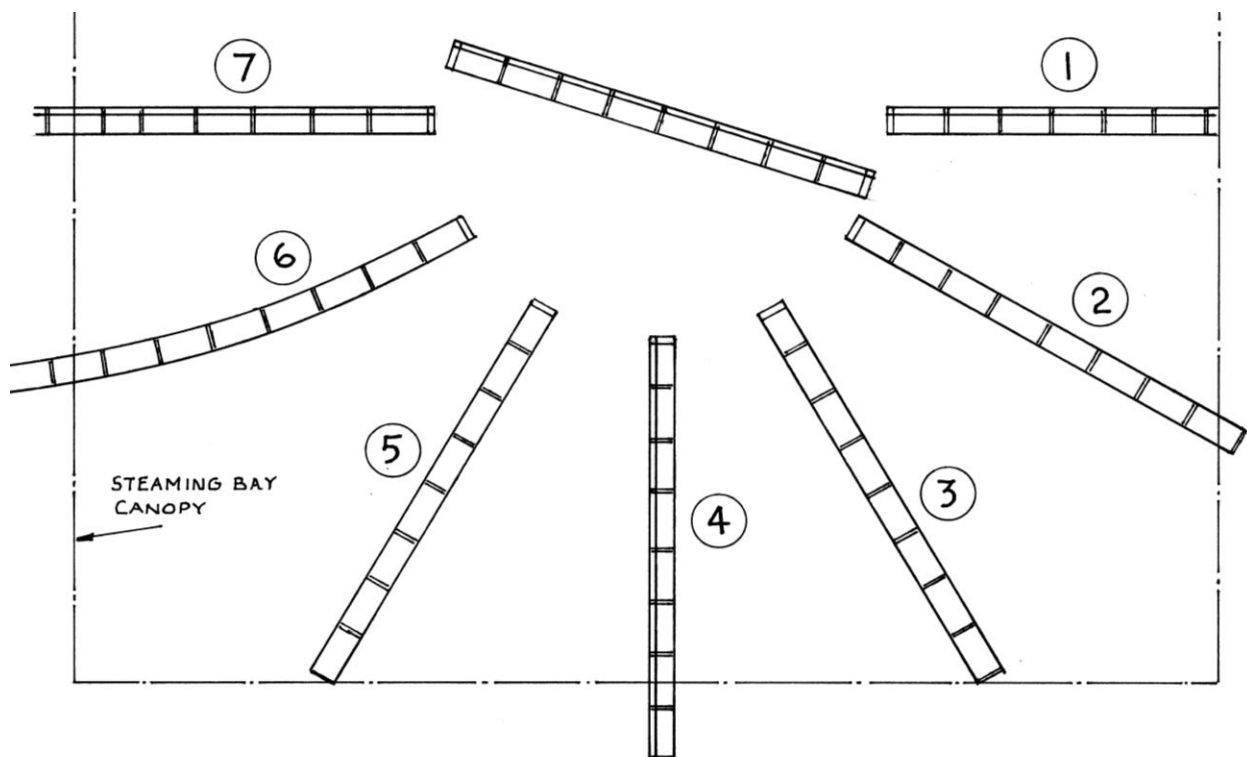
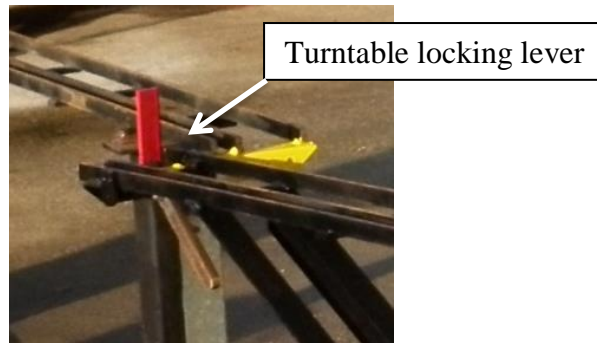
The building of a carriage shed behind the ground level tunnel to store the 7¼ gauge rolling stock was completed before Xmas. This will enable the existing carriage shed to become a loco shed for use by those members with locos in 7¼ gauge.



Work started in January modifying the raised track steaming bay area to introduce a turntable and 5 radial steaming bays. This should provide a more flexible operation in allowing individual engines access to the main running track without blocking each other as has happened occasionally in the past.



The 2.4M turntable has locking levers each end to both align the track and provide a stop plate when in the unlocked position to prevent an engine rolling off. When the turntable is aligned with one of the radial bays the locking lever should be engaged to align the track and release the stop plate. The free end of the turntable should have the locking lever left in the unlocked position so that the stop plate remains in the raised position thereby safeguarding the risk of the engine rolling back of the turntable. The turntable has been tested with 100 kilos of load which should cater for most members' engines. The turntable rotates easily on its bearing and care needs to be exercised to prevent it from swinging too quickly and catching the radial bay track end.



Bay No. 1 is the original position for loading either 3 ½ or 5" gauge locos from the pump up trolley. Bay No.2 is for 5" locos to be steamed but can also be used to load up from the pump up trolley in the event that the 3 ½ track is in use. Bays No. 3 &5 are for 5" locos. Bay No.4 is for either 3 ½ or 5" locos and has a drop out section of rail to allow the fire grate removal on the 5" loco. Bay No. 6 is for 5" locos to be steamed and is also connected via the curved section to the original track to feed into the traverser. This provides an alternative exit route for 5" locos in the event that more than one 3 ½ loco is being steamed at the same time. The turntable can also be used for reversing the direction of travel for 3 ½ locos by engaging the locking lever in the off-centre hole in either bay No. 1 or the original exit track No.7.

Following on from the successful trial of using the red plastic netting between the support columns of the station canopy to prevent the children (and parents) during the parties crossing the yellow line, and getting close to the running track, a demountable picket fence has now been installed.



Fence panels (recycled) have also been installed to hide the new water storage tanks behind the club house and as we are all getting older and less nimble a set of steps have been added between the raised track and ground track to provide a safer route to access the storage area behind the tunnel.



Don Black

Summer Events Programme 2019

Saturday 13th July The Tendring Hundred Show

September The Great Bentley Show
(dates to be confirmed)

Please check club house notice board or website regularly for any updates including visit to Chingford track.

Modifications I have made to my Locos - Part One

As most of you know, I have built several locomotives over the last 40 years or so. As an engineer employed in a Colchester factory in various positions, you get aware of what works and what is not workable. If something goes wrong, you fix it. If it goes wrong again, you look at the design to see if there are any faults and if it goes wrong a third time it needs a re-design and an upgrade of materials etc.

When making my Virginia a lot of thought was made as the building progressed. There were no real problems until the boiler was being made. It was realised that the design of the firebox made access to the upper boiler stays difficult to silver solder. LBSC had designed a firebox with a narrow grate area due to the bar frames taking up a lot of room and with a large space above the grate for combustion to take place. It would be difficult to reach into the firebox with a flame to solder the stays. (See sketch 1 on page 6)

After a lot of thinking I came up with a design which I discussed with Alex Walford, who was the chief boiler inspector at the time. I would silver solder into the upper parts of the firebox rows of threaded blind bushes for the stays to be screwed into after the firebox was fitted into the boiler. When assembled the stays in the upper area of the boiler could be screwed into the firebox from the outside and then soldered on the outside only.

This has been a complete success. There have been no problems now for 1660 miles since completing the locomotive in 1980.

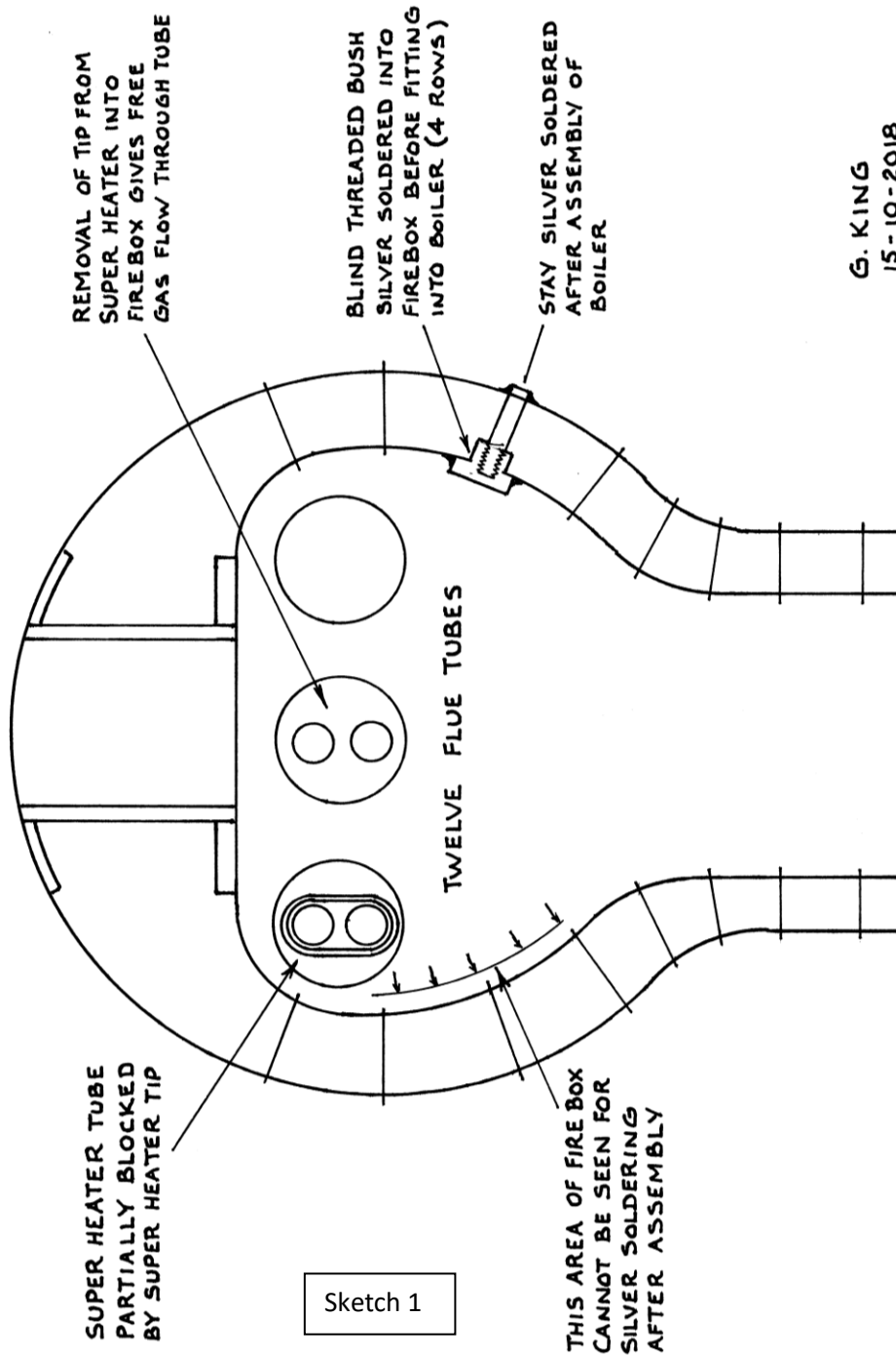
After many miles running I realised the super heater had failed, there being a blow up the chimney and out of the firebox door when the regulator was opened. The super heater was removed from the boiler, where it was found that the front tip of the super heater had worn away. It appeared that grit from the fire had eroded away the copper as it passed at high speed down the boiler tube.

A new stainless steel super heater was made to a radiant design in the firebox, which I had TIG welded. There was an unexpected result when I started to run the locomotive, as steaming was much better for a much longer period. The bottom rows of the boiler tubes no longer became blocked up with cinders from the fire. This was put down to having a much clearer space around the super heater, as the tip of the super heater no longer blocked the gas flow through the boiler. All of my latter loco's now use this design of super heater which reaches almost to the firebox door. (See sketch 2 on page 6)

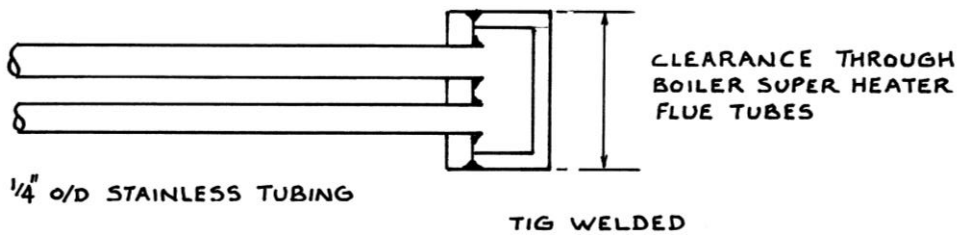
Another mod that I have made is on the hand pump in the tender. After several years use I became aware that the piston ram was becoming rather loose in its bore. I realised that the weight of my hand was pushing the piston downwards, causing wear to take place in the bore of the pump. The pump body was extended by some 2 inches so that the pump piston was supported throughout its length. A slot was machined along the body for the pump handle to work the piston, while it was supported for the entire stroke. I have not had to touch the hand pump now for several years.

That is all for now. I will describe other design changes on my locos in the next LINK.

Geoff King



Sketch 1



MATERIAL: HEAT RESISTANT STAINLESS SUPER HEATER TUBE FROM BLACKGATES
 ALL MY LOCO'S USE THIS DESIGN OF SUPER HEATER

Sketch 2

G.KING
 15-10-2018

G. KING
 15-10-2018

Indentured

A tale of old time learning in industry

Episode 20

After these rather serious reflections on the part of the young couple it is perhaps time to return to the world of life in the drawing office. For some time there had been much activity around the main entrance to Dorman's works; short pillars were being cemented into the ground either side of the gateway itself. In due course it transpired that the Plant Engineer -- Mr. Payne -- was constructing a lifting barrier consisting of a horizontal pole (complete with black and white stripes) which would entail all incoming (and outgoing) vehicles to stop pending the gate keeper condescending to lift the said barrier. The pole was designed to lift up to almost a vertical position to allow the largest vehicles to enter. A significant feature of the pole was a large red disc in the centre bearing the word STOP.

It should be mentioned that this entrance (and the gatehouse) was in full view of the Drawing office. In the ordinary way this installation did not much trouble staff coming to work in the morning. However, if like Edward, you tended to come in at the last minute making a hasty entrance, then contrive to park the car and just manage to punch the clock in time, this new installation might be considered a nuisance. Instructions to the gatekeeper were to put the pole down smack on starting time. Edward was not alone in this habit -- there being another Morgan owner in the office who practised much the same routine. Indeed there was an element of unspoken rivalry between them as to who might get through the gate at the highest speed. This person was one Tony Divey --of whom reference will be made later--and he owned a white Morgan 4/4.

Inevitably, one Monday morning Edward had left his lodging pretty much to time but pottering slowly up the rear access lane he perceived that something was obstructing his exit-- it was only the milk float but its driver was not to be seen. Slightly annoying -- but the driver re-appeared after a few seconds and moved the milk float away. Because Edward was in the habit of cutting things a bit fine, this delay was enough to spur him into making a more spirited run to Dorman's than usual. As he came up the Tixall Road (with Dorman's on his right) he observed that there was no traffic to deter him from making a swift entry into the car park. He executed a particularly fast turn in-- only to be confronted by the large red disc bearing the word STOP.

He had clean forgotten about the infernal pole but now needed to react very sharply indeed. As the Morgan featured a direct form of steering (it was actually geared up between the steering wheel and the road wheels) he was able to adroitly flick the car over to the left enabling it to completely miss the red disc and pass beneath the pole itself which (as later measurement showed) the top of the windscreen cleared by about half of an inch. Glad that he had avoided any impact he parked the car and moved swiftly to the drawing office -- punching the clock on the way.

On entering the drawing office he was surprised to be confronted by a burst of clapping and even a faint cheer. It was only at this point that he realised that he had done anything out of the ordinary. As he walked passed Julie's board she managed to convey similar sentiments to him, but this euphoria did not last long. Striding towards him in a purposeful manner was the Chief Draughtsman -- Mr. Allsop-- he was not smiling and instructed Edward to go and see the Chief Designer forthwith. This entailed going upstairs and entering the holy of holies -- Mr. Locket's office.

It was rare for the rank and file to get into this place and usually, if they did, it was not to their advantage. Naturally, Edward was apprehensive, but once standing before this much respected

personage he somehow picked up a sensation that Mr. Locket did not wholly disapprove of his actions. Yes, for sure, he started off with some kind of admonition but before getting very far it was evident that he was trying to conceal his laughter but, nonetheless, did manage to point out that he had received a phone call from Mr. Payne complaining that one of his young people had abused the said pole. Of course, it is not easy to abuse a pole-- something that Mr. Locket fully appreciated; he also appreciated that the only real issue here was Mr. Payne's pride.

Well, in the nature of things he was not going to worry much about that! And so Edward left the office a pretty happy sort of chap even collecting a few favourable comments along the way. (Before moving on it should be mentioned that Tony Divey -- in later years-- was to produce a Morgan three wheeler look-a-like featuring a Moto-Guzzi engine. It was a successful venture and was sold under the brand name of the Tri-King).

It was not many weeks after this that Edward completed his indenture and became a member of the salaried staff -- earning the princely sum of £9-5s-6d per week. This was known as the 'loosing rate'. Modest as this sum was, new houses being built near Penkridge were being offered at £1800 and older style terraced houses within the town for a good deal less.

On completion of your apprenticeship it was customary to make a trip around the works offering former workmates a cigarette and having a friendly chat. These discussions inevitably led to the question of what one would be doing next. Naturally, everyone seemed to know that he and Julie were likely to get married, but he had to point out that he would be called up soon for National Service and that they had taken the decision to get wed after the two years. This brought forth various pretty stereotyped comments but some men who had experienced military life, made helpful and realistic suggestions. One of these was that it might be beneficial to aim at the RAF rather than the army. (The Navy had already closed its ranks to the National Serviceman).

The general view was that the RAF offered a better quality of life than the army. There was less chance of spending your time on parade grounds or the eternal preparations that were involved -- using blanco, spit and polish. For instance the RAF actually issued you with shoes as well as boots. After all, the point of the RAF was to fly and maintain aircraft. There was even a chance that you might have some involvement with the aircraft or at least with the engines that propelled them.

In truth the RAF was not destined to offer much that Edward would have called worthwhile unless he signed on for a minimum of three years and he was not going to do that. On entering the service you would initially do basic training (More commonly known as square bashing). This would last for six weeks and, in the case of the RAF, took place at either Bridgenorth or Wilmslow. This period was pretty grim, recruits being generally confined to camp and not given much leeway -- any entertainment would be whatever might be provided on the camp itself. On completion of the six weeks, everyone was presented with a list of available jobs and in turn these would involve you being posted to various locations where you would receive appropriate training. After that you could expect to be posted permanently to whichever RAF station sought the skills for which you had been trained. This might be either in the United Kingdom or one of several locations abroad.

Unfortunately, the list of postings for National Servicemen proved to be severely limited. (The cream jobs went to those who signed on for three years or more). The bottom of the barrel was reckoned to be the RAF Regiment -- this was considered to be the RAF equivalent to the Pioneer Corps in the army. Some of the jobs offered would include an enhanced rank -- this was attractive since it could mean an increase in money. An example would be an 'aerial erector' -- this title being pretty much self-explanatory. The obvious challenge being an ability to work at great heights above the ground; this deterred many from applying-- despite the fact that they

would be given the rank of Senior Aircraftsman (SAC) complete with the appropriate pay increase. Naturally, it was roofers and steeplejacks who went for this one.

Meantime Julie had pursued the possibility of employment with Stafford County Council. She had been interviewed and offered the job as a draughtswoman. The pay was a handsome increase over that from Dorman's and, additionally, the work promised to be interesting. The outcome was inevitable.

Thus, this narrative must come to a close; they were both sad to leave but were destined to find the training that they had received from Dorman's Student Apprenticeship Scheme was to prove of inestimable value when they were confronted with the rough and tumble of the industrial world at large. In the nature of things the true merit of Dorman's training only became evident as the years passed and situations arose which might have defeated individuals with a less thorough grounding in engineering practice.

Paul Davies

Children's Parties 2019

We have six parties booked for the 2019 season. The dates are as follows 20 April, 8 June, 29 June, 20 July, 17 Aug, and 7 Sept.

Please make a note in your diaries of these dates, parties do not happen on their own and actually are quite fun. One Saturday afternoon a year is not a massive commitment.

Looking forward to seeing as many of you as possible this season.

Graham Willmott

Secretary's Report

At the time of compiling this report we have 98 Full members on our books but 9 still have to pay their 2019 subscriptions.

If you have not paid your subscription please quickly do so. According to our Bye Laws, those who have not paid by the end of March are deemed to be 'persona non grata'. Need a boiler testing or want to continue to use our wonderful facilities; you need to pay your subscription. If you have any issue with paying this year, please talk with Peter Bohn who will find a way for you to continue your membership.

For those of you who have been in the Society a fair time you will have seen the membership decline – there are at least 14 fewer full members than only 3 years ago.

So, CSMEE are attending The Tendring Hundred Show this year. Our objective is very simple – show the people of Essex what there is on their doorstep. We hope that with a larger attendance, a steam loco giving rides on the 100 ft. track, an impressive display of various models, we can then attract some new members.

So, a date for your diary – Saturday 13th July.

Peter Bohn is organising our display, if you want to help, please talk to Peter.

Gauge O/1 track.

Some members spent considerable time and effort upgrading this facility. Let's hope the weather this year is as good as last year and for those of you with Gauge 0/1 models please come and make use of this track.

Raised Track steaming bays

Another Don Black led project has resulted in improved facilities for us all. For minimal outlay, more loco's can be worked upon without holding up access to the raised level track. (see separate article) Thanks yet again to the members who have put in the hard work to achieve this.

Wednesday 'Gang'

Wednesday's regularly sees 12 + members present – far more than on some Friday nights. The Wednesday 'slot' was described to me as 'site maintenance' day. You work in the morning and if time allowed you could have a steam up after lunch. Needless to say there are still many tasks to be performed around the site especially now that the weather is improving. Whether it is weeding the flower bed or the track bed, trimming back vegetation or cutting the grass, all these things need to happen. These basic tasks are not the specific responsibility of a few – all can join in and they would be achieved a lot quicker with many helpers. So, if you want to steam up on a Wednesday, think about what you could do in the morning to help maintain the site. Council do not want to direct members to do 'jobs', we would hope that you would want to help to keep our Society smart and tidy.

Club loco's

A great big 'thank you' to Geoff King who has been custodian of two of our club loco's – Sweat Pea and Butch. David Hammond and Gordon Ager have taken over responsibility for Sweat Pea, assisted by Graham Willmott who will be managing a re-paint of this much used workhorse. Anyone want to be responsible for Butch ? See me or Ian Pryke.

Clubhouse

For those of you that have visited recently, you will have noticed that the clubhouse room has been repainted. Please try and keep it smart. We will be re-laying out noticeboards etc. to try and make it more user friendly.

AGM: This is to be held on Friday 26th April at 8pm.

Want to have a say, decide who should represent you on Council, moan at those who have been 'in control'. Then turn up and speak your mind. The AGM is one occasion where you can hold us all to account. We are not clairvoyant, so need your input as to how this wonderful Society should be developed and managed.

On a personal note, this will be the last year I am prepared to stand for the Secretary role. Having said that, if anyone would like to stand for Secretary this year then please ensure you submit a nomination form to me by Wednesday 24th April 2019 so that it can be included within the AGM process. Nomination Forms and Proxy Forms can be found in the clubhouse and on our internet site within the member's area.

And finally we request members to keep us updated with any changes in contact details e.g. email, address, phone numbers and any "In Case of Emergency" information.

Ian Ransome

Hereford Model Engineering Society

A few weeks ago I found myself in Herefordshire and with a friend saying he had arranged a meeting; I was suddenly 'en route' to Hereford MES. Tuesday is their maintenance day and there must have been 30 + members going about their work – a team replacing sleepers on the ground level track, a team getting their Romulus loco ready for another season, a team building a retaining wall for the new toilet block, some in the projects shed with the 00 gauge layout, some in the woodwork shop preparing timber and members in the canteen getting the lunchtime soup ready. The Chairman made sure everyone had a job.



The clubhouse sits on a small rise ensuring it does not flood.



This is the boat pond, not flood water, but areas of the ground were still very waterlogged.

Yes, they have a large site that they purchased from Herefordshire County Council in 2004 for £1, but it floods (probably) twice a year!! Thought is being given to drainage and building a dyke alongside the adjacent field to stop the flooding.

I walked their ground level track, which is having wooden sleepers replaced by 'plastic', and with the maximum gradient of probably 1 in 600 which apparently catches out some of their loco men, it does allow for a good long ride behind their Romulus loco !! Because the Council let them have the freehold so cheaply, they feel duty bound to provide a community service by public running on two Sundays per month from around Easter to end of October - 17 sessions in all and with rides costing £1.50, this gives them an income of £700 to £800 per event. That's not including the £200 they make on teas and cakes!! An annual income of £15,000 + -no wonder their annual subscription is only £35.00. To operate safely on those Sunday's they need 20 members to attend and with their membership figures about the same as ours, they rely on the same old team to help them deliver such an impressive income.

One thing they have had to do is elevate all their rolling stock so that it does not get damaged when the site floods. To see countless riding wagons sitting 6+ feet up in the air with a home built gantry crane within their carriage shed is a sight to behold. They have a large 'projects' shed (that was 50% funded by the Council) which contains a large 00 gauge layout under construction (with public viewing area) and another partly built 71/4 Romulus and tender – needed for the public running days. So much space!!

Hereford MES run a Junior Engineer session. Juniors sign up, with a Parent, to attend every Saturday morning (9.15 to 12.30) where they are taught basic engineering skills. They have a

fully fitted out separate workshop for these Junior's (see photo's below) NO parent or guardian – no attendance, that is how they get around the safe guarding / first aid issues, and they are taught soldering, welding, brazing as well as all the normal machine use with very comprehensive manuals available. Again, this is very reliant on the time and commitment of the members to support this programme. The rewards have been seen with their Junior's winning prizes at the Midlands Show.



The Chairman, Wally, and Secretary, Trevor extended a warm welcome and said that any CSMEE member in the area is welcome to look in and have a chat. Hereford MES can be seen on Google Earth and can be found next to the Hereford Waterworks Museum, Broomy Hill, Hereford, HR4 0LJ.

Ian Ransome

Chairman's ramblings

As you read this report I will have been in the post for nearly a year and have thoroughly enjoyed the experience. During this time I have listened to various concerns voiced by member's regarding club activities and projects that have been undertaken. When possible I have addressed these on the day, usually to the satisfaction of the member concerned, however some issues have to be brought to the attention of the committee for further discussion etc., so please continue to raise your concerns as I will always listen and try help.

Membership is below 100 for the first time in all the years I have been a member and this is something that needs to be addressed. We need to target all age groups and genders for they are the future of C.S.M.E.E. and for this reason we are attending the Tendring Hundred show. We would like to get as wide a range of models as possible (not just locos) so if you able to help in any way please speak to Peter Bohn who is the co-ordinator for this event.

Hopefully arrangements can be made for a visit to Chingford Club which will be on a Wednesday, so please do give it a lot of thought with a view to coming along and driving on another track. From past experience it is an easy track to drive.

Have you ever thought about having a go on the ground level track and are a little unsure on what to do, then please do come and speak to me and I will assist you in any way I can, you never know you may get to enjoy the experience.

In the coming weeks, 2 new notice boards are going to be fitted in the meeting room. These are for official club notice's etc. and space will be made available for members adverts. So the boards do not become cluttered, any advert over 6 wks. old will be removed.

If you currently receive your issue of LINK and Club correspondence by post, please consider receiving it by e-mail it's quicker and saves the club money.

Ian Pryke Chairman

A Bit of Fun

For those of you who had a go at the "Code Breaker" crossword in the last LINK, here is the answer to the code:

15	9	18	8	15	3	13
F	I	R	E	F	L	Y

If you enjoyed this "Bit of Fun" and would like to see more in future LINK editions then please let me know. It will only be used if there is a shortfall in future contributions to the magazine.

Don Black



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