

NORWICH & DISTRICT SOCIETY OF MODEL ENGINEERS

Founded 1933

Incorporated 1967

EATON PARK MINIATURE RAILWAY

e-BULLETIN

Summer (May-July 2021)



Cor! Look at that nice pair!

Steam test day at Eaton Park

Cover story

Tuesday the 27th April was given over to steam testing. Amongst locos present was Brian Bakers A3 4475 Flying Fox with its distinctive banjo dome. As the society has a rather elderly A3 too, the opportunity could not be resisted to picture them together, as the NRM did with A4s a few years back.



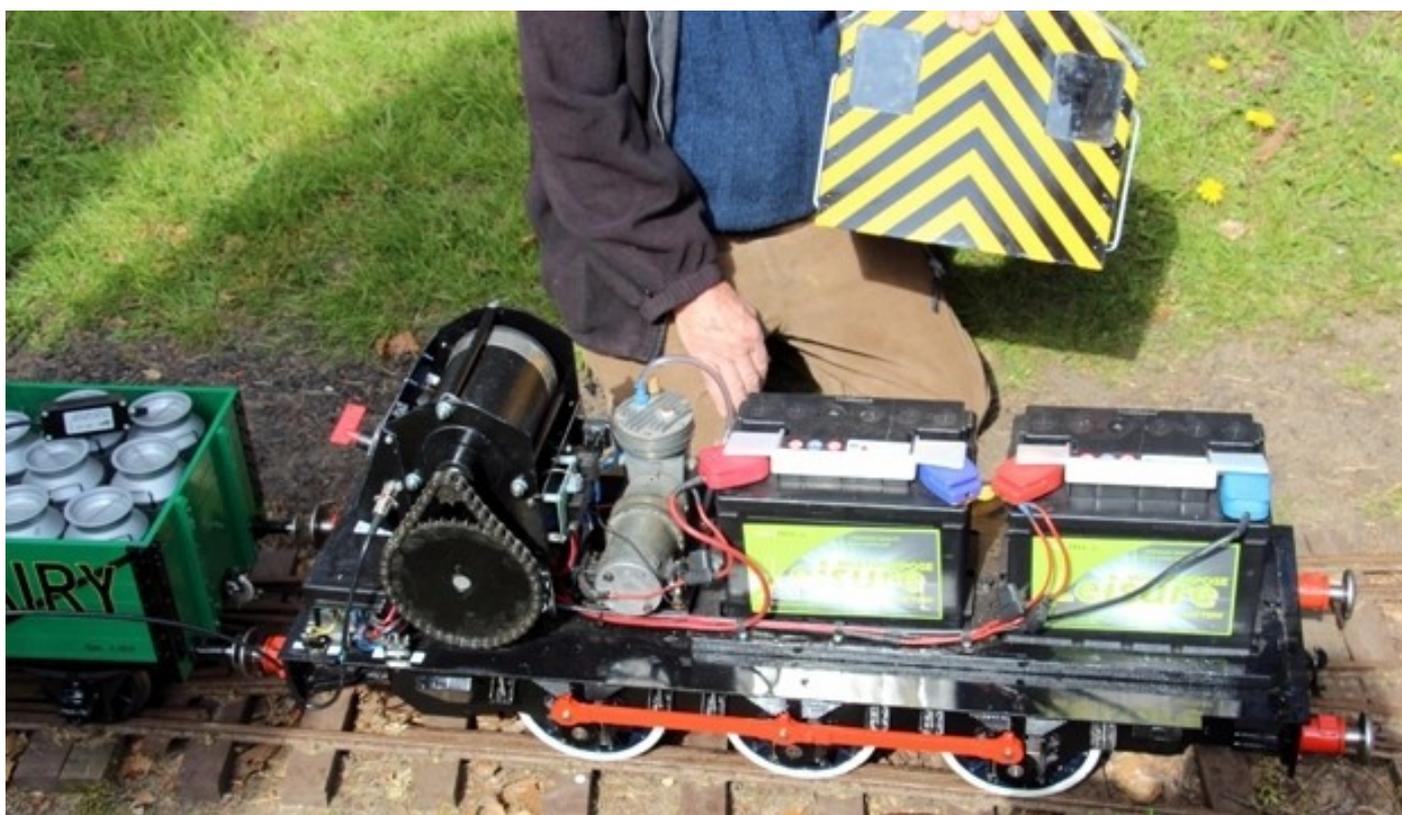
Rather splendid they both look too in the spring sunshine. Brian's loco was on its best behaviour for the test and, after a close inspection from the tester, passed with flying colours, ready for Hemsby.



Also out and about was Brian's new class 08 battery electric, in a rather nice shade of early BR blue. Here it is shown with Brian's recently constructed Dairy wagon



This is the layout under the bonnet,



Lastly, we see James Horrex's new build 7.25 version of his 5" *Thomas*



From our roving reporter

Mike Fordham gets out rather a lot with his camera and always sends us some interesting pics. Here, he reports on a steam wagon he came across.

I saw this at the Leighton Buzzard Railway in 2011 where it was being driven round by its builders.





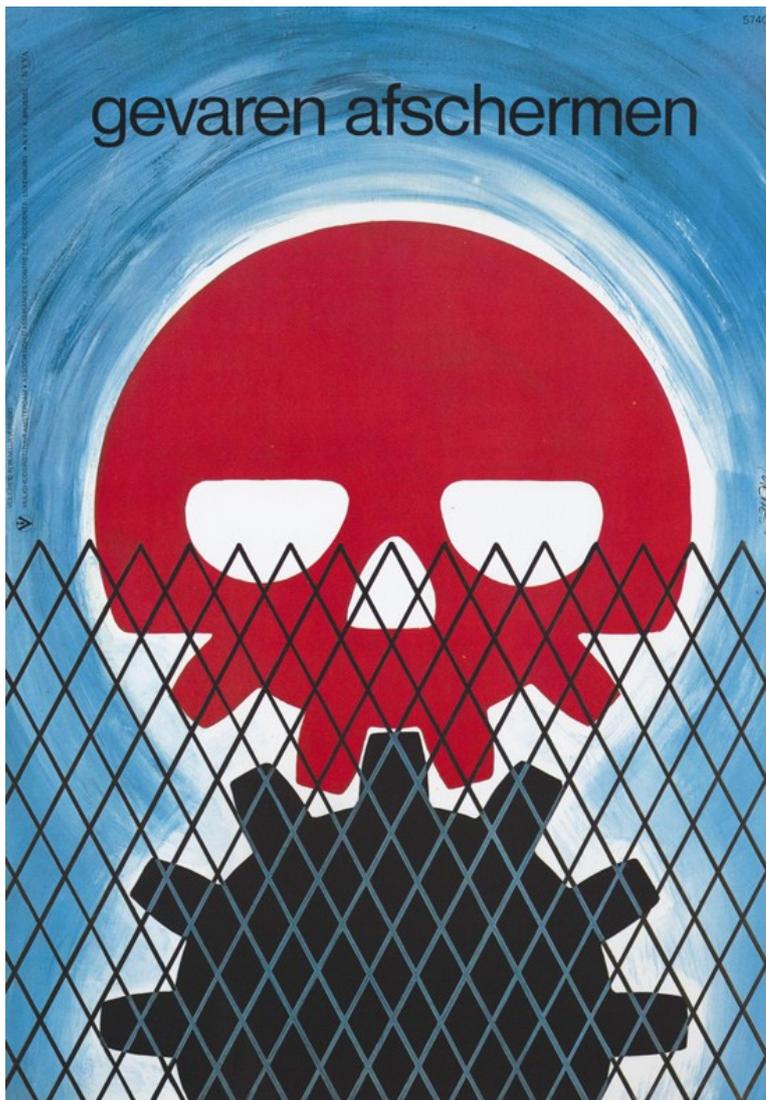
It had started life as a dumper truck built by Road Machines Ltd of Drayton at a unknown date.



It was purchased in 1974 without its engine by the present owners. The boiler had been replaced in 1966 and a replacement was built by Waller Gower of Bedford as the original was beyond repair.

A spare Reader & Sons Ltd of Nottingham engine was recovered from a Luton factory. All the parts went together in 2001 when all rallies were cancelled due to Foot and Mouth, a milk float canopy was also added.

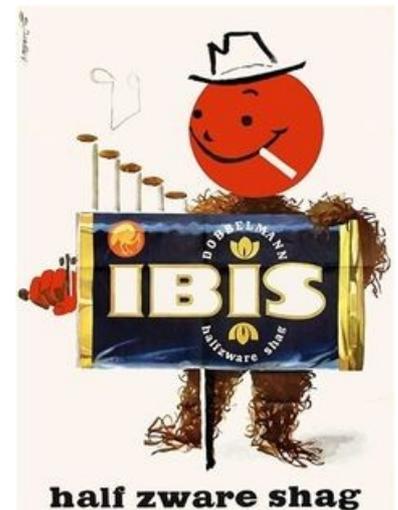
Engineering in Art



Shield Dangers, 1975, by Franz Mettes (1909-1984)

Frans Mettes was a prolific Dutch craftsman who was proficient in multiple visual media and responsible for hundreds of posters. Together with his brother Engburtus he designed for cigarette brands such as *Belinda*, *Chief Whip*, *Dubec*, *Eden*, *Lucky Strike* and *North State*. Also for *Ibis* (shag), *Masciotte* (rolling papers)

and for cigars such as *Hofnar*, *Ritmeester* and *Wilhelm II*, and for



drinks such as *Bols* advocaat, *Silver Top Dry Gin*, and

Heineken. Mettes worked for several companies including Expo 58 and Holland-Amerika Line. Between October 31, 2012 and February 10, 2013, the Railway Museum in Utrecht dedicated an exhibition to the work of Mettes under the title *Reclame for framing, Frans Mettes (1909-1984)*. The museum has a large collection of Mettes posters. The 1975 poster depicted is stark in its simplicity yet also highlights the solution to a potentially dangerous situation. The red upper cog hints at the fate that may await the careless worker who neglects to shield dangerous machinery. It is a warning as relevant now as almost a half century ago.





Forthcoming Event

The NDSME summer BBQ will take place on the evening of Wednesday 11th August and Eaton Park. All members welcome.



STORAGE OF PRIVATE ROLLING STOCK AT EATON PARK - GUIDELINES

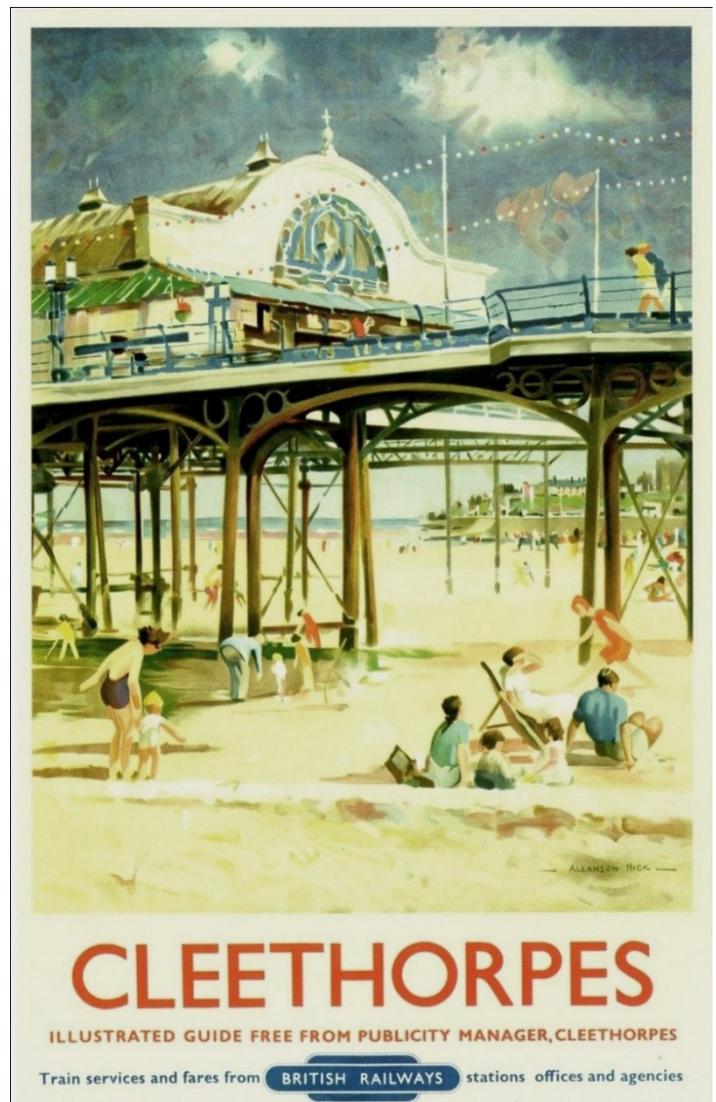
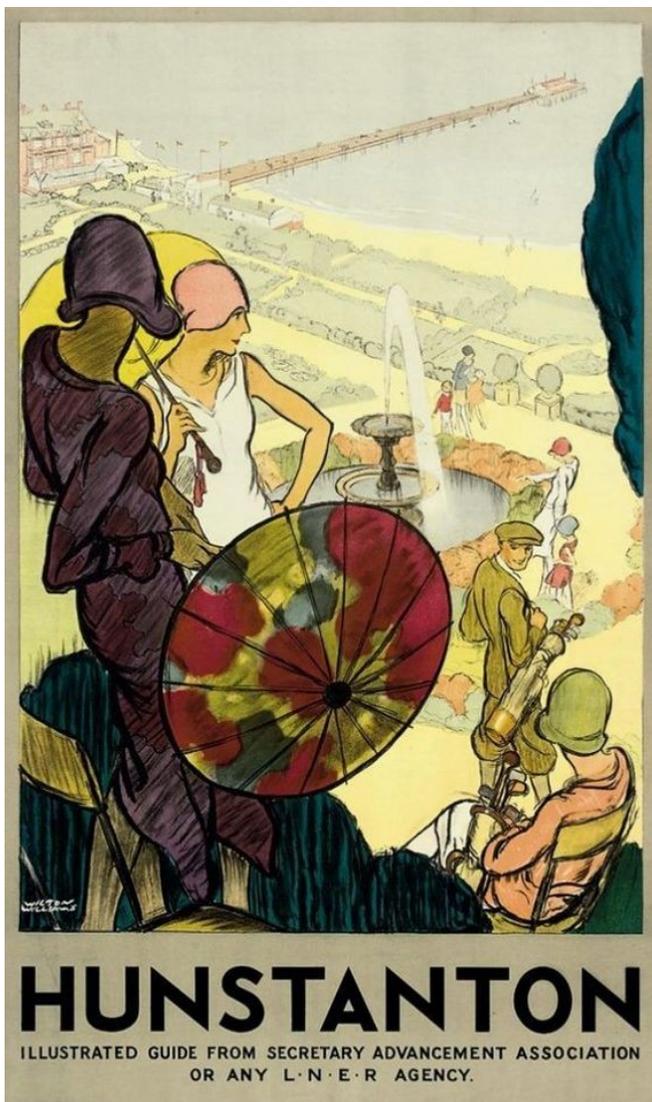
- Limited storage of private owner stock may be offered subject to conditions
- At the discretion of the committee and subject to any availability of space.
- Subject to owner removing stock on demand
- Owner must arrange their own insurance
- Such stock should be available for public carrying during the season
- **Please note that there is no further space available for long-term storage**

Mystery item (last edition)

The **Pass of Brander stone signals** are a series of railway signals situated in the Pass of Brander, between Loch Awe and Taynuilt stations on the Oban branch of the West Highland Line in Scotland. They are part of a warning system that advises train drivers to exercise caution in the event of a rock-fall. The railway through the Pass of Brander was opened in July 1880. It was originally part of the Callander and Oban Railway. Since the line's opening, rocks falling from the steep slopes of Ben Cruachan onto the track had threatened to cause a derailment. The secretary of the C&OR, John Anderson, devised a system that would detect falling rocks and provide a warning to drivers. A screen of wires, linked to semaphore signals, would be erected on the mountainside alongside the railway. In the event of one or more wires being broken, signals in each direction would be automatically placed at 'danger.. The remarkable thing about the Pass of Brander system is its age and the fact that it is entirely mechanical in operation.



Membership rates for 2021-22, were due to have been increased following suggestions from members. In the light of the restricted activities available to members for the past year (and possibly longer) it was decided not to increase fees at this time and they remain at 2020 levels. When compared with other SMEs these rates still represent excellent value, thanks to the contribution made by the railway to society funds.



Two reminders here of just how important tourism once was to our railways, Hunstanton (now rail-less) in the 1920s and Cleethorpes in the 1950s. Cleethorpes, once the terminus of multiple lines Cleethorpes is now on a single track line from Grimsby.

Remembering those we have lost this year



Bernard Ambrose, remembered by Janet Steel

I have been meaning to write you for some time now to say that sadly Bernard Ambrose had died. Following a stroke six years ago, he was paralysed down one side. I never once heard him complain about it and he was well-cared for at Saxlingham Hall residential home.

Bernard and his late Wife Gwyneth were very good friends of Barry and myself. He was a very talented, quiet and unassuming gentleman, with a dry sense of humour. He was a Physics Teacher with an enquiring mind. He had a great interest in many things and enjoyed belonging to both the Model Engineers and the Engineering Society in Norwich. He was also invited to become a member of the Royal Society, something he was very proud of.

Members will I am sure, remember the fascinating talk he gave on the making of the automaton depicting the inventions of Leonardo da Vinci? He made the entire working model from scratch and gave talks about it at many venues, raising money for Cancer charities in memory of his wife Gwyneth. The model worked by putting in a 2p coin, but Bernard would always say a £1 would give you the "feel-good factor"! He raised over £6000 for the charity in her memory.

One of his other projects was the amazing barrel organ, complete with music and a monkey sitting on the top. He also devised the punch-card scroll of music which played a variety of tunes. The barrel organ took pride of place at several Model Engineer Exhibitions and Open Days. It also gave pleasure to the residents at Saxlingham Hall on a variety of occasions.

Like so many other members before him, he will be much missed.
Janet Steel

Andrew Burr

4th May 1947- 12th March 2021

Andrew had only been with us a few years and had big plans for his new locos. He will be remembered by many of us as Land Rover dude, and his vehicle got us out of one or two pickles in recent years. Here, he is remembered by his son Colin, who has since joined ndsme to carry on with Andrews projects.

Married with three children, Andrew worked on a farm in Kent until aged 35 before moving to Norfolk in 1981. From then until retirement he worked as a HGV driver.

Andrew always had keen interests in WW2 planes enjoying many days at Duxford and Biggleswade museums.

He enjoyed also his vintage tractors and ploughing rallies with friends, was a keen radio ham (er)(?) in later years and enjoyed greatly his days at Bressingham Steam Museum and Mid Norfolk Railway as a volunteer. (After retiring)

He lived latterly for his grandchildren of which he totally adored.

Sadly Andrew was unable to run his loco with the club but certainly the thought of it cheered him in lockdown and with his health ailing.

Andrew died in his home suddenly and is missed by many.

New Members

Since the beginning of the year, we have welcomed the following as new prospective members

Kei-Tao Ma, Peter Pank, Colin Burr

Robert Fowkes, Ian Smith

James Smith

Out and About at EP



Brian Baker on his A3 which had just had a steam test

Head Gardener
Richard Crook
dealing with some
of the weeds that
have flourished
during lockdown





Clint Ballard having a test run of Brian Bakers new CI 08 batt-elec loco

Brian Sayer and Richard Henderick working on the new toilet block



From the Archive

Two pics from the raised track, probably in the 90s but if you can date them more precisely do let us know.



A young Steve Mitchell driving with Dick Stockings observing

Brian Reading driving his 5" GWR Manor class 4-6-0 which, he informs, was built around fifty years ago, ran for seven years at EP before being sold to a chap in Hull. It then ended up at Station Rd Steam (dealer) when it was sold to a member of the 7¼ Gauge Society member in Suffolk who ran it for a time before selling it, at which point the trail runs cold.

Note the old turntable which would have been in front of where the traverser shed is now.



You've got to laugh!

This time with an IT theme...

-Hello, would you like to hear a TCP joke?

+Yes, I'd like to hear a TCP joke.

-OK, I'll tell you a TCP joke.

+OK, I'll hear a TCP joke.

-Are you ready to hear a TCP joke?

+Yes, I am ready to hear a TCP joke.

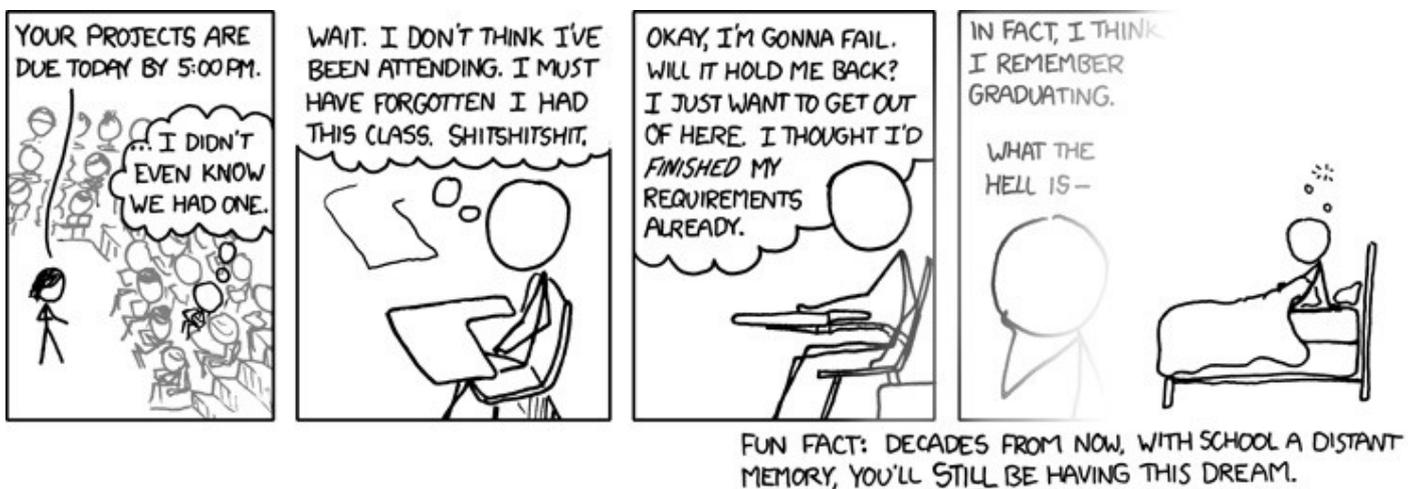
-OK, I'm about to send the TCP joke. It will last 10 seconds, it has two characters, it does not have a setting, it ends with a punchline.

+OK, I'm ready to hear the TCP joke that will last 10 seconds, has two characters, does not have a setting and will end with a punchline.

-I'm sorry, your connection has timed out... ..

-Hello, would you like to hear a TCP joke?

The Engineering student's dream



Maths in Engineering

The Mathematical Bridge, Cambridge



Photo Rafa Esteve - Own work, CC BY-SA 4.0, <https://commons.wikimedia.org/w/index.php?curid=51077253>

The **Mathematical Bridge** is the popular name of a wooden footbridge in the southwest of central Cambridge. It bridges the River Cam about one hundred feet northwest of Silver Street Bridge and connects two parts of Queens' College. Its official name is simply the **Wooden Bridge**. It is a Grade II listed building.

The bridge was designed by William Etheridge, and built by James Essex in 1749. It has been rebuilt on two occasions, in 1866 and in 1905, but has kept the same overall design. Although it appears to be an arch, it is composed entirely of straight timbers¹ built to an unusually sophisticated engineering design, hence the name.

The original "mathematical bridge" was another bridge of the same design, also commissioned by James Essex, crossing the Cam between Trinity and Trinity Hall colleges, where Garret Hostel Bridge now stands

The arrangement of timbers is a series of tangents that describe the arc of the bridge, with radial members to tie the tangents together and triangulate the structure, making it rigid and self-supporting. This type of structure, technically **tangent and radial trussing**, is an efficient structural use of timber, and was also used for the timber supporting arches (centring) used for building stone bridges. Analysis of the design shows that the tangent members are almost entirely under compression, while the radial timbers are almost entirely subject to tension with very little bending stress, or to put it another way, the tangent and radial elements elegantly express the forces involved in arched construction.



The tangential members of the tangent and radial trussing are highlighted.

Photo by Cmglee - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=15226721>

A popular fable is that the bridge was designed and built by Sir Isaac Newton without the use of nuts or bolts. Various stories relate how at some point in the past either students or fellows of the University attempted to take the bridge apart and put it back together, but were unable to work out how to hold the structure together, and were obliged to resort to adding nuts and bolts. In reality, bolts or the equivalent are an inherent part of the design. When it was first built, iron spikes were driven into the joints from the outer side, where they could not be seen from the inside of the parapets, explaining why bolts were thought to be an addition to the original. Newton could not have been directly involved since he died in 1727, twenty-two years before the bridge was constructed.

Storage Space at EP

The Society is currently reviewing the use of the underfloor storage by members for their private rolling stock. We are not, for the time being anyway, accepting any more items for storage. Chris Eve has offered to assess the situation and to report back to the committee shortly.

We will almost certainly have to create extra space sometime in the future, possibly by making separate accommodation for the raised track stock currently in tracks 1 and 2.

Spotted on YouTube



<https://www.youtube.com/watch?v=k1wj34iTTDE&t=6s>

A Check Valve With A Difference. Keith Appleton's Large Showmans engine has two check valves, one on each side. The one featured in this video is from the left hand side of the engine and admits the water from the crankshaft driven pump into the boiler. The problem was that the check valve was leaking around the mounting flange so he decided to remove it and take it apart to see what was inside this special check valve...

Raised track group

Just a reminder that the first Saturday of each month is allocated specifically to 5" and 3.5" locos on the raised track. Other Saturdays are also general members days for running locos on either of the two tracks unless otherwise required. Subject to coronavirus rules!

News From the Clubhouse

Tuesday gangs have resumed fully now and members are working on various projects including the A3, private engines, track laying and painting of infrastructure. Following an unfortunate collision between the extra wide car No7 and a canopy support as it was being propelled by members who had not remembered its limitations, the track between the turntable and the exit points at Parkside station is being slewed over to allow No7 to clear.

Following a spate of derailments of vehicles with non-standard tyres, it has been decided that prior to public operations, the track must be inspected by a walkaround check and corrected if necessary. The current problem is sleepers that have had a lawnmower strike and are skewed over, narrowing the gauge, causing problems. Until ballast is laid, which will largely obviate this problem, a visual check for skewing must be made and any appropriate action taken.

The tunnel, opened in 2013, will, during the summer BBQ, be named "*Gower Tunnel*" to commemorate Neville Gower who designed and oversaw the project. We are currently sourcing two cast plates, in the style of bridge number plates.

NDSME SUMMER BBQ AT EATON PARK

Wednesday 11 AUGUST @ 1830

All members welcome

NDSME in the community

In April, Stuart Beard from the *Friends of Eaton Park*, asked if it would be possible to put on a train for some pupils from Bluebell Primary School who were engaged in a conservation project in Eaton Park as a part of their studies. Naturally enough we were delighted to do so and they came along for rides on Wednesday



19th May during the afternoon. Volunteers Mike Fordham, Richard Wells and Philip Moore put together a train powered by the society bat-elec Cl. 42 loco and gave them trips around the track for half an hour or so. An enjoyable time was had by all and this reinforced the society's historic close links with local schools.

Stuart Beard, who is also a photographer, had his cameras and drone out for the afternoon. His footage can be seen here

<https://www.youtube.com/watch?v=iLEfnjR1edQ>



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BRITISH RAILWAYS



NDSME directors (committee) and officers as at June 2021

Company Sec.	J McDonell	Chair	vacant
Treasurer	C Eve	Publicity	M Rhodes

Other directors: , B Fane, P Moore (estates), J Horrex, P King (PW) R Hendrick, B. Fraser, R. Wells

Other officers: R Montgomery (Rolling stock), H&S, tbc Meetings organiser M Fordham (pro tem) A3 Support Group J Horrex coordinator

Hard copy bulletin distribution: - P Moore

There are other roles that need filling. Contact the Company Secretary if you are interested. Email clubsecretary@ndsme.org



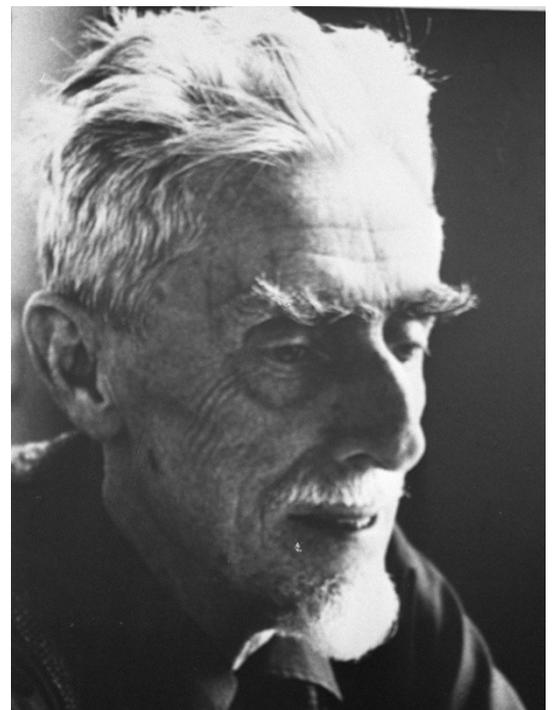
Forthcoming Events

PLEASE NOTE THAT ALL MONTHLY MEETINGS HAVE BEEN TEMPORARILY SUSPENDED UNTIL FURTHER NOTICE, IN ACCORDANCE WITH HM GOVT DIRECTIVES. WE ARE INVESTIGATING WAYS THESE COULD BE HELD OUTDOORS LATER THIS SEASON, INCLUDING THE AGM IN AUGUST.



In the next edition.....

Who and what is the connection?



Don't Forget...

The ndsme summer BBQ returns on Weds 11th August at 1830. We have booked the same caterer that was such a success in 2019, the last BBQ before the lockdowns. There were good reports of this so don't miss out. All members are welcome to this, whether you're a Tuesday or Sunday regular or not. The only qualification required is a desire to eat burgers!

TAILPIECE

By Chris Eve



Sun, Steam and Speed (after Turner)