

# NORWICH & DISTRICT SOCIETY OF MODEL ENGINEERS

Founded 1933

Incorporated 1967

## EATON PARK MINIATURE RAILWAY

# e-BULLETIN

**Feb-Apr 2020**



**A customised Romulus.**

**By Bob Webber**

## Romulus

By Bob Webber

As in a lot of projects this was started a fair while ago. I finished a 3 ½ "Maisie, then I was taken for a trip to Hemsby and needed a 7 1/4 "loco. in those days there was no question of me buying a ready to run loco. The Romulus looked easy and quick, the drawings were only six sheets of A1. How naïve I was. A lot later I saw the drawings for a 'Wren', a similar loco, with every detail shown and twenty-nine sheets of A1!

Anyway, the Romulus was started by making as many components as possible, even before the frames were assembled, alien to some people as they start with the frames first. When I did start with the frames, they were 48"x6" x ¼ thick. One piece was metric so I had to cut 1/10" off a 4" frame by hand, with no laser cutting in those days.

The loco construction was obviously going to be slow, so I shelved the project and built a GER Tram (subject of a future article)

I started the Romulus again, and I decided to incorporate everything I had learnt during my twenty years of model engineering, especially as this would be a loco for my old age.

- . Easy to control
- . Hydrostatic cylinder lubricator, adjustable from the footplate and don't get covered in oil
- . No cab
- . Bullied style injector layout, both on one side
- . Painted black (easy to touch up)
- . Vacuum brakes
- . Springs between the coupling and con rod, to stop the Romulus click
- . Tank loco for extra adhesion (4 gallons)
- . Three-point suspension to stop the 0-4-0 yoyo affects

- . Oil cups feeding axles via trimmings as per full size, to keep the dirt out
- . Steel brick arch for more efficient combustion
- . Proper blower ring & petticoat pipe, something most narrow-gauge locos don't have but again more efficient
- . Brass slippers in the cross heads, easy to change
- .Regulator-commercial ball valve fitted, cheap and easily available
- . One thousand clearance on horns (to stop rattling and last longer)
- . 1inch deeper firebox
- . Separate smokebox
- . Change handbrake design to clear the ashpan
- . Rear coupling assembly duels up for main attachment to road trailer
- . Steam operated Stuart boiler feed pump
- . O-rings seal all washout plugs and main filler on the dome to save thread wear, all parts in contact with the boiler water are bronze
- . Commercial isolating gate valves on steam fountain, blow down and pressure gauge
- . Extra bearings on brake cross shaft
- . Rods and where possible on motion sealed oil pots
- . Stainless steel ashpan
- . Whistle mounted between the frames (too noisy for me)
- . Boiler lagging, two layers of 3mm cork, best lagging in any gauge
- . Wheels attached to axles by keyways
- . steam operated drain cocks, no complicated mechanical linkage
- . Phosphor bronze piston rods, less wear on the glands

- . Top of cylinder steam chest O-ring plug to lubricate cylinder valves with anti-corrosion oil at the end of each run
- . Three cock water gauge frame to properly check water level, as per full size
- . Rear buffer beam reduced in width (due to my large feet)
- . The design used 20mm x 20mm angle riveted to the frames, personally I can't stand the noise of riveting so used M6 bolts and nuts as fitted bolts

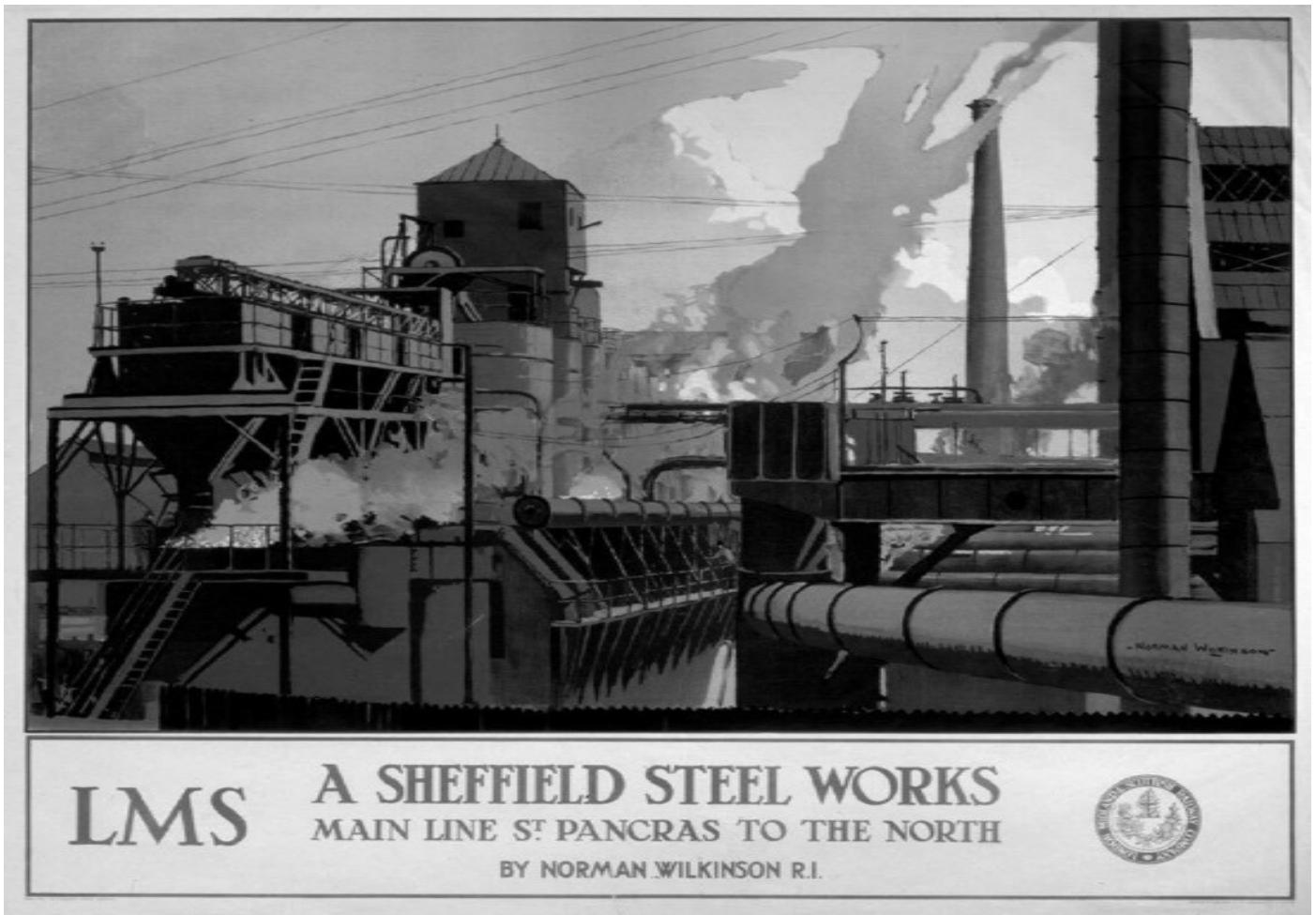
When I was at the Bure Valley Railway as a driver, I helped assemble a 15" kit-built tank loco, the frame bolts used were commercial M12 bolts, driven into a suitable hole as fitted bolts, I have found all modern bolts are very accurately made and consistent.

Finally, why the name 'CORBY', well my mother's maiden name was Corby, and every time I visited her in her later years, she insisted on giving me money so I bought the Romulus castings with the money given to me.

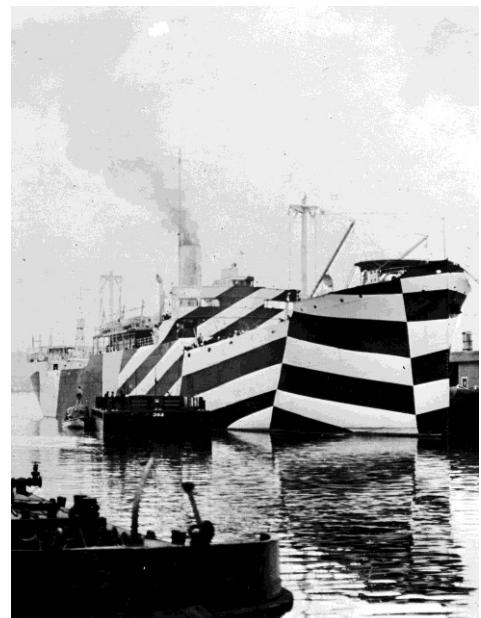
Plus, her father Frank Corby (my grandfather) was a GER engineman from 1882 to 1930 at Stratford.



## Engineering in Art



*A Sheffield Steel Works*, a poster by Norman Wilkinson CBE, RI, (1878 – 1971) for the LMS. Wilkinson was a British artist who usually worked in oils, watercolors and drypoint. He was primarily a marine painter, but also an illustrator, poster artist, and wartime camouflage. Wilkinson is credited with inventing dazzle camouflage (*right*) to protect merchant shipping during the First World War.



Left- A painting by [Norman Wilkinson](#) of a moonlit convoy wearing his dazzle camouflage, 1918

## **Spotted on YouTube**

### **How Were Swords Made in Medieval Times? – Metalworking from the past.**

Josef Dawes of White Well Arms joins Jason to talk about the creation of the knight's sword. Starting from a few billets of steel, Josef shows Jason some of the techniques to shape the metal and manipulate it to where it needs to be in order to create a well-balanced knightly weapon.

<https://www.youtube.com/watch?v=fCPN1Oslyw0>

## **Accessible Carriage Project**



Our new accessible carriage was live tested on Sunday 15<sup>th</sup> March and it performed flawlessly. Members who attended were trained in all aspects of safe and correct use of the vehicle. It is a robust and highly stable vehicle – it weighs a third of a ton and most of that weight is very low down. We were hoping to unveil this at Easter but this won't happen now, although we will invite all the sponsors and donors to come along later in the season. If there ever is a season this year



## **From the internet**

These pics show the effect of recent Storm Dennis at Andover MES. It turned their cutting into a canal! We in Norwich were lucky...



## Fun on the Net



A Software Engineer, a Hardware Engineer and a Departmental Manager were on their way to a meeting. They were driving down a steep mountain road when suddenly the brakes on their car failed.

The car almost careened out of control down the road, bouncing off the crash barriers, until it miraculously ground to a halt scraping along the mountainside. The car's occupants, shaken but unhurt, now had a problem: they were stuck halfway down a mountain in a car with no brakes. What were they to do?

*"I know," said the Departmental Manager, "Let's have a meeting, propose a Vision, formulate a Mission Statement, define some Goals and by a process of Continuous Improvement find a solution to the Critical Problems, and we can be on our way."*

*"No, no," said the Hardware Engineer, "That will take far too long, and besides, that method has never worked before. I've got my Swiss Army knife with me, and in no time at all I can strip down the car's braking system, isolate the fault, fix it, and we can be on our way."*

*"Well," said the Software Engineer, "Before we do anything, I think we should push the car back up the road and see if it happens again."*

### **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 directors 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 membership renewals are due. New cards will be sent out in early April.

## **NDSME directors (committtee) and officers as at Apr 2020**

President	vacant	Membership Sec	A Shirley
Company Sec.	J McDonell	Chair	vacant
Treasurer	C Eve	Publicity	M Rhodes
Other directors: M Riches, B Fane, P Moore (estates), J Horrex, P King (PW) R Henderik			
Other officers: R Montgomery (Rolling stock), H&S A Shirley, Meetings organiser M Fordham ( <i>pro tem</i> )			

Bulletin distribution: *digital* –A Shirley, *hard copy* - P Moore

There are other roles that need filling. Contact the Company Secretary if you are interested. Email [clubsecretary@ndsm.org](mailto:clubsecretary@ndsm.org)



## **Forthcoming Events**

08 April	<i>The Joint Strike Fighter</i> by David Morton CANCELLED
13 May	Monthly Meeting – CANCELLED
06 June	<i>Maxitrak Owners Club</i> visit to EP SUBJECT TO CANCELLATION
10 June	Monthly Meeting – tbc SUBJECT TO CANCELLATION
08 August	ndsm visit to Riverside Min Rly, St Neots. SUBJECT TO CANCELLATION

For other events, see [ndsm.org](http://ndsm.org)

**-PLEASE NOTE THAT ALL MEMBERS DAYS, MONTHLY MEETINGS AND DIRECTORS (COMMITTEE) MEETINGS HAVE BEEN SUSPENDED UNTIL FURTHER NOTICE, IN ACCORDANCE WITH HM GOVT DIRECTIVES**



## **NEWS FROM THE CLUBHOUSE**

Plaques for Neville Gower, Barry Steel and John Peterson are being organised. It is planned to name the tunnel after Neville.

The new boiler for the Dyak loco is finished and awaiting collection.

Work on the Superloo has been suspended due to the Coronavirus restrictions and this will resume when the situation improves. The base has been completed but the installation will remain at the supplier's premises *pro tem*.

An independent H&S assessment has been carried out by an outside contractor. It is clarified that the H&S W Act (1974) should be observed by *ndsme*.

Members will receive a list of all other members who have consented to have their contact details shared.

The Accessible Carriage has undergone live testing and found to be wholly satisfactory. The unveiling ceremony on Easter Monday has had to be cancelled and the carriage will enter service at the earliest other opportunity.

The society has taken part in the *Norfolk Railway Society* Annual Show at Poringland.

The contractors have finished with tree felling but their vehicles have left rutting in the parking area. R Henderick will investigate solutions.

There is now a suggestions box in the clubhouse. Sensible suggestions only please!

R Crook granted consent to store his new carriage under the clubhouse, subject to the usual standard conditions.

The loan from the Northern Federation has been delayed and we await further news.

Coal – it is not currently expected there will be any difficulties arising from the ban on domestic coal sales in 2021.

Rodents have been discovered to be operating in the signal box. R Crook is taking steps to eradicate.

It has been decided that anybody working solo in the former tennis courts should take a walkie-talkie with them and also ensure one is left switched on in the clubhouse.

New access codes will be issued with 2020-21 membership cards in early April.

It was noted that one of the guards trolleys has been equipped for a dual purpose role as driving/guards trolley. If the Malcolm Jay (yellow) loco is used then this dual-purpose trolley must be used in conjunction with a braked train. This is because the yellow loco has no independent brakes.

The membership list on the website (members area) is to be reformatted by the membership secretary to make it easier to use.

## **RAISED TRACK GROUP**

There is a thriving 5"/3½" raised track group, meeting on the first Saturday of each month, plus other Saturdays too. This is in abeyance whilst temperatures are too cold and will resume when the emergency is over. **CANCELLED TILL FURTHER NOTICE**



*ndsme Tours...*

Doncaster Exhibition Sat 09 May 2020

PLEASE NOTE THIS HAS BEEN CANCELLED

REFUNDS OR CREDITS TO BE ARRANGED

## A Short story about a Simplex 5" gauge called TEAL by Pete King

*Teal* began life as *St. Ella* in 1990 and was my first attempt at building a steam loco. She was built at the end of my garage in Buckinghamshire using a very elderly Myford ML7 lathe, a very basic bench drill and a selection of hand tools. She took about 6 years to complete and the first boiler test was on 31<sup>st</sup>. March 1996 at Milton Keynes MES track at Deanshanger (long since dismantled). I joined Northampton SME at about the same time and *St. Ella* did many miles of public running both on their raised and ground level tracks whilst I spent 10 years building my Hunslet *Elidir*.



*Above - First boiler testing at Milton Keynes 1996*

In 2005 Northampton SME hosted IMLEC which is a competition run every year in July at different Model Engineering Society tracks around the country and is a test for both loco and driver. *Below - During the IMLEC run 2005*





Above - Ready to go again 2012

The winner is calculated from a large number of factors collected by a dynamometer truck on which sits an observer to check for foul play (some people do take it very seriously). Each competitor runs for 30 minutes non-stop (if possible) and the calculations are based on:-

Average drawbar pull    Overall run time    Weight of coal used    etc. etc. etc.

The locomotive returning the highest thermal efficiency is the winner.

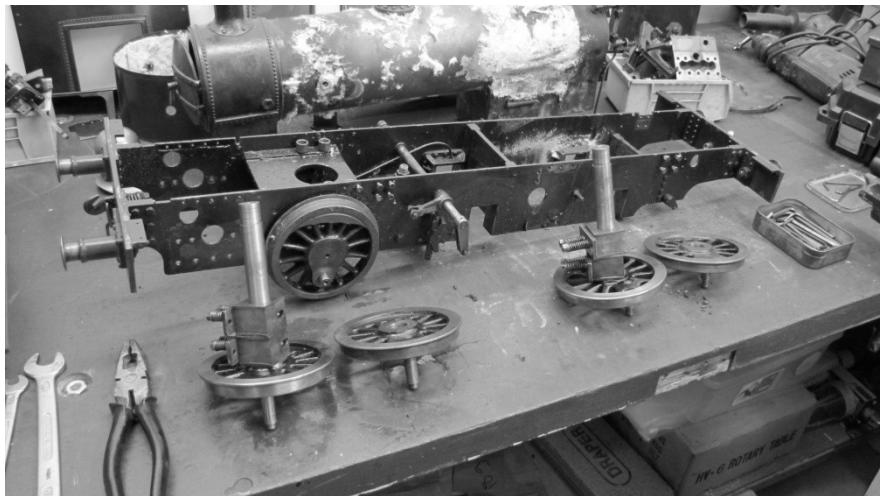
The driver chooses how many trucks and passengers to pull at the beginning of the run and can use as much coal and water as necessary and these are handed to the driver or observer on the run, hence you can see the white funnel in the side tank on the photo which makes it easier to get the water in whilst running. At the end of the run any coal not used is collected from the tender and accurately weighed then the calculations begin. I didn't win!!

Almost 10 years to the day and *Elidir* had its first fire lit which meant that *St.Ella* was put on a shelf in the workshop. After moving up to Norfolk I decided to brush off the dust and did an overhaul which included reboring and sleeving the cylinders etc. And then she was ready to go again with her new name (I had gone through a divorce but needed to use the same letters ☺).

One day soon I hope she will come out of retirement. We shall see.

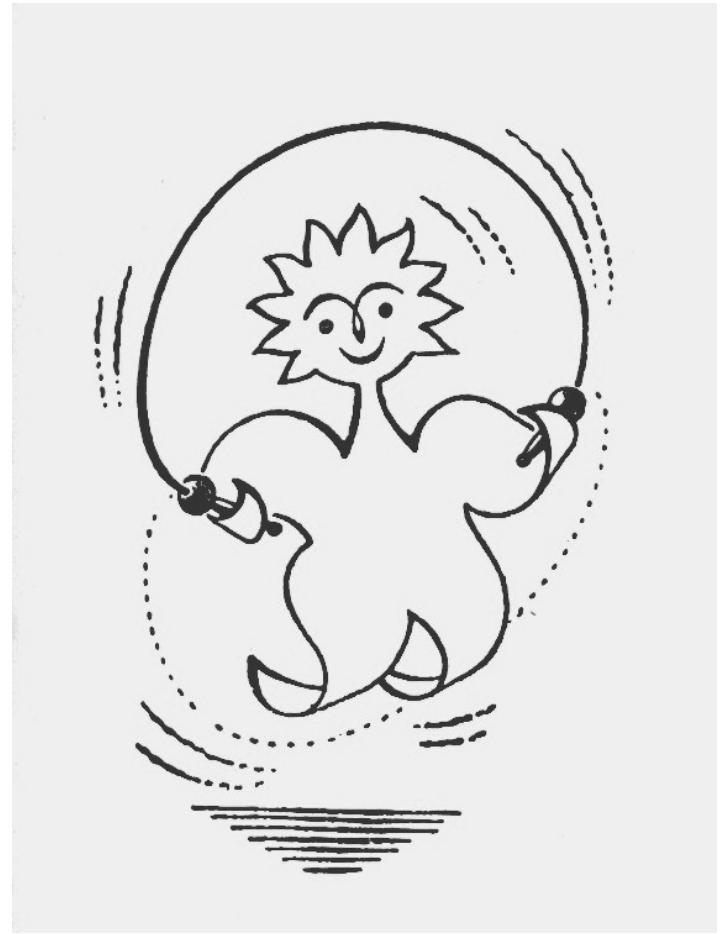
*Right -Rebuild in Brancaster Staithes  
2011*

*Pete King*



## **Who remembers.... Mr Therm?**

In 1931 the London based Gas Light & Coke Company instituted a Publicity Dept headed up A P Ryan (who joined them from the Empire Marketing Board). Ryan introduced Mr Therm, having commissioned the work from the London Press Exchange for whom Eric Fraser devised the figure. Although done for the GLCC Mr Therm was so successful they allowed the British Commercial Gas Association (the industry's trade association) to use him and so he became synonymous with the gas industry. After the nationalisation of the industry in 1949 the cheery Mr Therm carried on and was still in use up until the 1970s before fading out with the move to natural (North Sea) gas.



Eric Fraser was a well-known artist and graphic designer - possibly best remembered for his striking work in many editions of Radio Times for the BBC.

First illustrated by Eric Fraser in 1931, Mr Therm was the poster boy of gas supply across the UK. He first appeared on publicity material for the Gas Light, & Coke Company. The red character resembled a gas flame, with a hairdo similar

to Tommy Boyd's 1980s look (when he presented the *Wide Awake Club*), or Lisa Simpson. After the Second World War, he became the mascot of the Gas Council. Eric Fraser's work was also seen in the *Radio Times* where he worked on the magazine's graphic design.

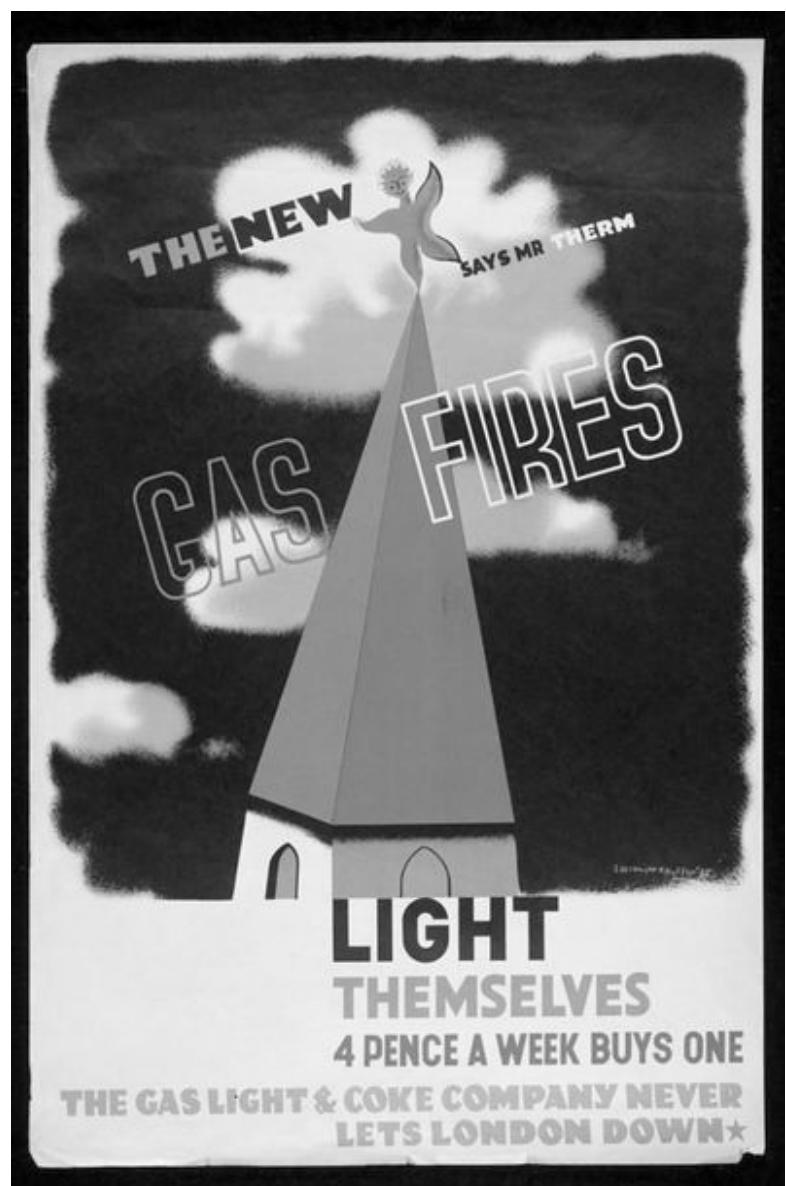
Mr Therm became a national figure. He was the face of many cartoon strips, telling people how to use their gas supply wisely. His face was seen in DIY tips – well before the popularity of home improvement programmes on terrestrial and satellite television channels. He featured in numerous publicity items in gas showrooms throughout the UK.

In 1962, thanks to advertising agency, Colman Prentice & Varley, Mr Therm went into retirement. Some gas boards used the flexible fellow in their publicity material till the 1970s. The name of the character refers to the Therm itself, a unit of gas measurement. A UK therm is equivalent to 29.31 kWh.

By the time he was retired, the Gas Council had changed their focus to "high speed gas": the arrival of natural gas from the North Sea. Sadly, Mr Therm had no place in an era when Britain switched from town gas (made from coke) to the cleaner natural gas.

*Right-* a 1935 colour lithograph by Edward McKnight Kauffer for the Gas Light & Coke Company advertising gas fires. '*4 Pence a Week Buys One - The Gaslight & Coke Company of London Never Lets London Down*'. The design shows an orange church spire, with the Mr Therm figure as a fiery sprite standing at the top on one leg, against a dramatic backdrop of a black sky with white clouds.

Contrary to popular belief, Mr Therm is still alive and well. The name lives on as a central heating installation company in Scunthorpe.



## Ndsme out and about

On Saturday 14<sup>th</sup> March ndsme was represented at the NRS Annual Show in Poringland for the first time. Organised by Roger Montgomery, the society put on an impressive show of ME bits and pieces.

*Exhibits included stationary engines from Robert Bailey...*



*...and also Pete Kings loco Teal, referred to earlier in this edition.*

# **CORONAVIRUS EMERGENCY**

- From 24 March, people in Britain will be allowed to leave their homes for only “very limited purposes” – shopping for basic necessities; for one form of exercise a day; for any medical need; and to travel to and from work when “absolutely necessary”
- People are warned not to meet friends or family members who they do not live with.
- All gatherings of more than two people in public – excluding people you live with – are banned
- All social events are banned.
- Police have powers to enforce the rules, including through fines and dispersing gatherings.

**IN CONSEQUENCE OF THESE DIRECTIVES FROM H.M. GOVERNMENT MEMBERS SHOULD NOT ATTEND EATON PARK EXCEPT IN EXCEPTIONAL CIRCUMSTANCES**

**Monthly members meetings have been cancelled until further notice. Private members days, including Tuesdays and Saturdays have been suspended until further notice. The public operating season is also suspended until further notice. Check [ndsme.org](http://ndsme.org) for any updates**

**NOTICE – ACCESS CODES FOR THE GATE WILL CHANGE SOON. YOU WILL BE NOTIFIED OF THREE NEW CODES WHEN YOUR NEW MEMBERSHIP CARD ARRIVES.**