

# the Bulletin

**FRIENDS OF DISCOVERY MUSEUM (FODMS)**

**WINTER 2015/2016**

## **A Note From The Chairman**

We have now launched our new website at [www.fodms.com](http://www.fodms.com) which means that we are now equipped with an extremely powerful tool to reach out and make contact with members past, present and future.

We have also launched our new Facebook Page [www.facebook.com/friendsofdiscoverymuseum](http://www.facebook.com/friendsofdiscoverymuseum) and our new Twitter Account [@FriendsofDiscov](https://twitter.com/FriendsofDiscov) so please sign up to follow us.

I hope that you find it convenient to use and will enjoy the news that we are now able to bring to you so much more easily than before. This news includes our next quarterly open meeting, projects that FODMs have been involved in and our visit to Tanfield railway.

**Ian Burdon**

**Chairman, Friends of Discovery.**

## The History of Electricity Supply in North East England - A Project to establish an Archive



Many innovations during the Industrial Revolution were pioneered in North East England. One which is perhaps less-well known to the public at large than railways and iron ships is electricity supply.

One of the projects which the Friends of Discovery are involved with relates to a most important aspect of this Region's industrial development – the economic supply of electricity. Access to cheap and reliable electricity was to have massive effect, not only on the economic development of this part of the Country, but on many other parts of the Empire and its Dominions also.

A significant number of important features in large-scale electricity production and distribution were conceived and developed here in the North East. Aided by far-sighted and technically gifted engineers, inventors and entrepreneurs, the **North Eastern Electric Supply Company** (NESCo) grew from small beginnings in 1899 on Tyneside into a Company which led the field right up to Nationalisation and the integration of UK-wide electricity supply in 1947.

The abundance of coal in the region, supplemented by innovations such as the application of the steam turbine to electricity generation, the use of 3-phase supply systems, unitised boiler and turbine-generator arrangements, reheat in the steam cycle, centralised control of the transmission and distribution network, electrical protective systems for plant and transmission lines and Reyrolle's metalclad switchgear were responsible for the development of the electricity supply industry here in North East England. These were just some of the innovations that were first applied in the NESCo area of supply – which ultimately stretched from the Scottish border down through the industrial area of Teesside and into North Yorkshire – well ahead of the rest of the UK.

There is no official history of the Company, although some books have been written on the work of a few of the participants in the Company's activities. Much material is now lost due to the passage of time and the disappearance of many of the organisations involved pre-nationalisation. Research work I have undertaken in recent years has discovered that a not-inconsiderable amount of remaining archive material is fragmented and dispersed amongst former employees of NESCo and its post-nationalisation successor company NEEB, not just in the Region but much further afield.

I am increasingly concerned that much of this information, not just on the Company itself, but on the manufacturing companies which supplied plant and equipment, even the Company's lawyers, might be lost forever unless it is located, identified and catalogued in the near future.

The electricity supply industry can truly be classified as one of which changed the world in the late 18th and early 19th centuries. Companies and individuals in North East England were very important players in that industry and I believe that it is important that the major contribution made by NESCo and its associates should not be lost to future generations.

Please get in touch if you would like to support this project, maybe by donating relevant material or by getting actively involved in the pursuit, recovery and cataloguing of records and artefacts. I shall get back to you when I have a sufficient number of responses. If there is a reasonably positive response, I will organise a meeting where we can discuss how we might take things forward.

Ian Burdon (Ian.burdon@live.co.uk)

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## FODMs Quarterly Open Meeting and Costume & Textiles Tour



Agenda for Quarterly Open meeting --- Tuesday 8th March 2015 at 12-30 pm in the Carpathia Room at the Discovery Museum. (All FODMs members and public can attend)

- 1) Welcome & FODMs update - Ian Burdon
- 2) Discovery Museum update - Carolyn Ball
- 3) Feedback from the Christmas Gathering - Ian Burdon
- 4) Arcs and Sparks project - Ed Dinning & Chris Watson
- 5) Northumberland Young Engineer, Designer, Technologist Competition 2016 report – Graham Bradshaw
- 6) Visit to Tanfield Railway - Ian Burdon & Graham Bradshaw
- 7) Engines team report
- 8) Derwent Valley industrial history walk – E.Dinning
- 9) Future events and activities – G.Bradshaw
- 10) A.O.B
- 11) Date of next quarterly meeting & A.G.M – Tuesday 7th June 12-30

Quarterly Meeting Event

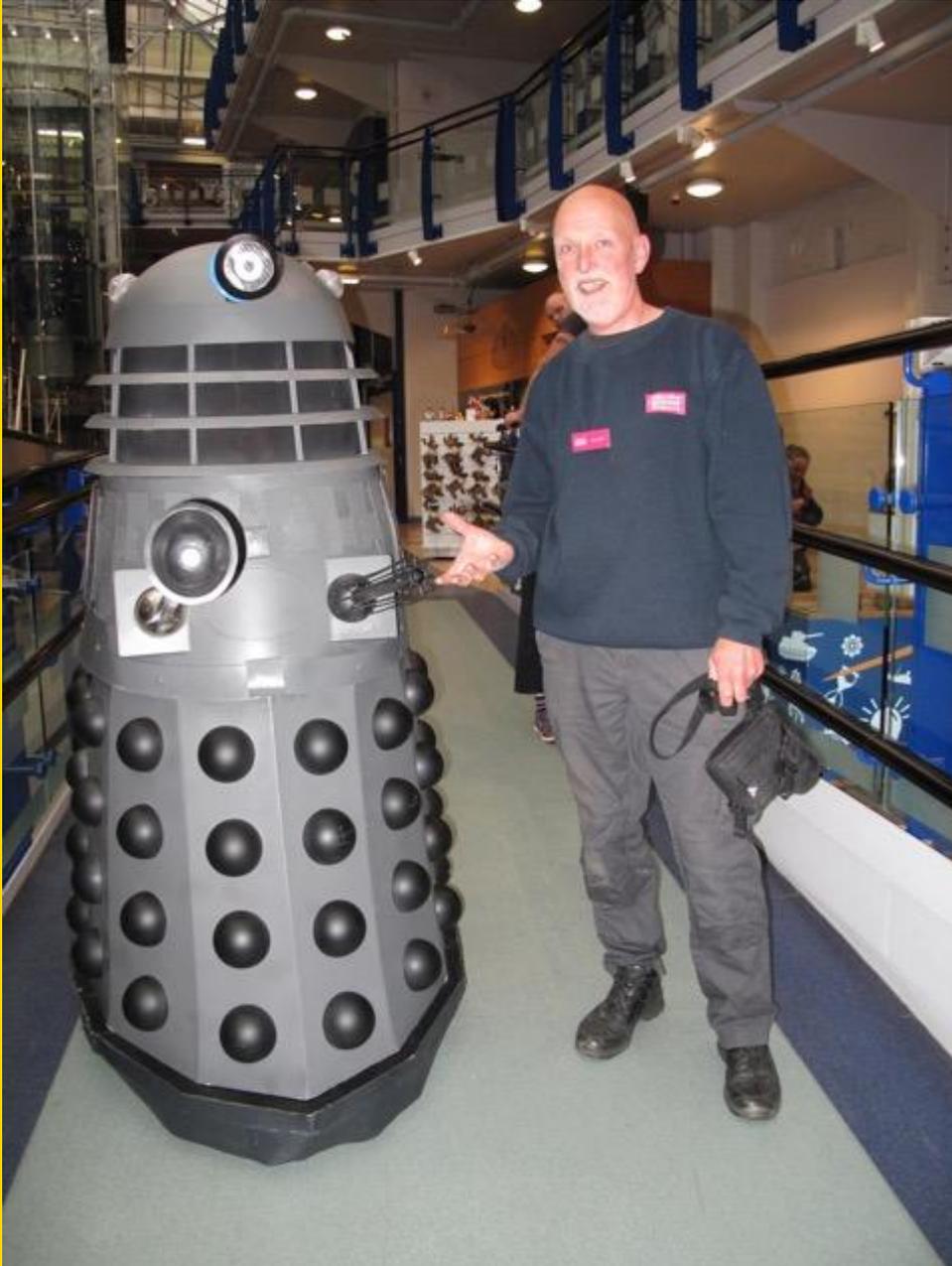
The meeting will be followed by a tour of the TWAM costume and textiles collection store with FODMs member and textiles conservation volunteer Joan Milne. Joan has kindly offered to take us on a behind the scenes tour of the costume and textiles store at the Discovery Museum. The collection spans several hundred years of garments and textiles and shows how fashions and styles have changed and repeated over the years. In addition to showing us the fantastic garments Joan will explain how the collection is cared for and conserved. To help preserve the collection only a limited number of items are on public display at any one time so this really is a great opportunity to see one of the U.K's best costume and textile collections.

The tour will start around 1-45pm and last about one hour. Please confirm attendance on the tour with Graham Bradshaw at [bradshawgraham@btinternet.com](mailto:bradshawgraham@btinternet.com)

Graham Bradshaw (Secretary FODMs)

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## Membership Notes



Hi everyone, just to let you know I will shortly be sending out the 2016 membership renewals. I do hope that you will continue with your membership of FODMs and also come along and join in with our activities at the Discovery Museum. Over the last year we have added members from a wide range of backgrounds and interests including costume and textile conservation, engineering, chemical engineering and teaching. We now have a broad armory of skills and talents to draw upon to help the Discovery Museum.

The photograph shows me with our latest member who keeps on muttering something about “exterminating” so be warned!

## RENEW YOUR MEMBERSHIP

Graham Bradshaw

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### Friends Visit To The Tanfield Railway



On a sunny but somewhat chilly day in November a group of FODMs members took to the hills above Gateshead. The purpose of this grand adventure was to visit the Tanfield Railway and find out how they operate and how they recruit new members.

We met Malcolm Sunter in the car park and after the usual formalities and a bit of hand rubbing (to get warm) headed down to the railway sheds and headquarters. Malcolm is a friend of FODMs member John Chaney and the visit had been arranged between them.

Unfortunately John was not able to attend on the day.

At the railway sheds we were taken into the "mess room " to meet the Tanfield team. Aided by tea and biscuits we had a really good exchange of information and advice. The Tanfield is a volunteer run railway that since it was set up in the 1970s has achieved some remarkable things. It is the oldest operating steam railway line in the world. The original tracks were laid in 1725 to move coal from the pits in the County Durham hills to the River Tyne for trans-shipment. To date the Tanfield Railway volunteers have rebuilt engine sheds, built a new carriage shed and repaired a wide range of industrial locomotives. This is in addition to operating a service for 80 days per year.

The Tanfield volunteers cover all ages and both sexes. The mix of people brings a wide range of skills and knowledge to the railway and it is this that creates a vibrant and active organisation. Their Chairman John Lennox told us that running the railway is an expensive activity. Locomotive repairs alone can be as much as £60-70,000. Currently the Tanfield are looking at Heritage Lottery grants to help them in the next stages of their development. He also told us that the pure railway enthusiast is not their main audience and that they are actively seeking to attract more family visits. It is obviously working because the upcoming Santa Specials were sold out.

After the luxurious heat of the mess room we were taken on a tour of the 'shed" site which is spread over quite an area. In addition to the locomotives we were also shown the workshops. It is easy to see why the Tanfield Railway needs heritage engineering skills but also how it can also develop those skills in the younger generation to help operate and maintain the railway in the future. The tour included a visit to the new carriage shed and much discussion about who remembered the famous "Marsden Rattler". As an incomer from Manchester I can only say that there was some obviously misspent youth that took place on said Rattler.

All in all it was a very enjoyable and inspiring visit which hopefully will lead to some more contact between FODMs and the Tanfield Railway.

*(Pictured are Tanfield Trust Chairman Derek Smith meeting FODMs Chairman Ian Burdon)*

Graham Bradshaw

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## All Spick and Span



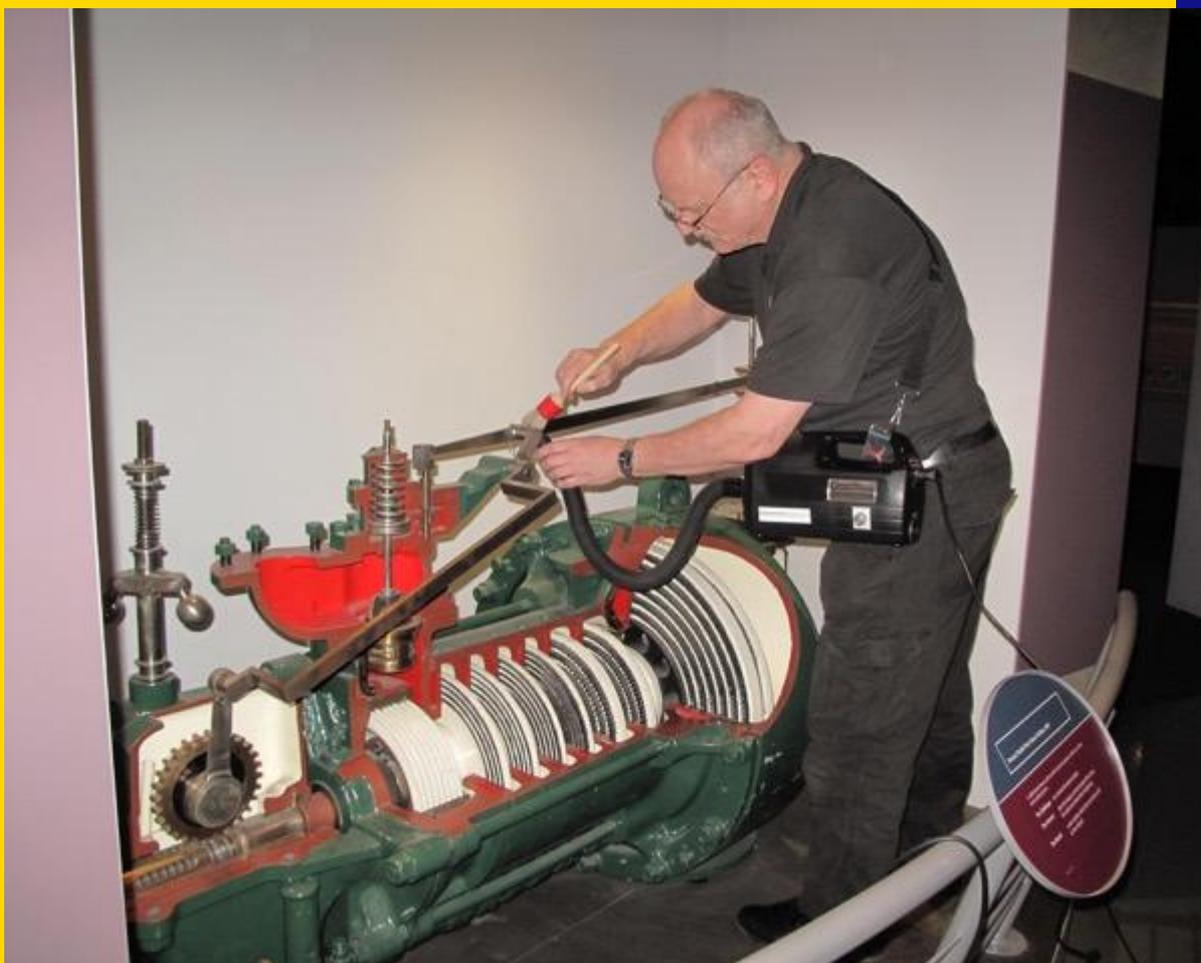
Whilst Discovery is a great museum it is unfortunately not housed in a purpose built hermetically sealed dust proof building. This means that the objects on open display need regular cleaning. Since December the Tuesday “engines” team have been helping the TWAM Conservation department with this task.

After a short training session with conservator Dawn Stoker the team has been let loose on the museum galleries. The cleaning process involves using a special variable power vacuum cleaner and a range of brushes. The technique is to brush the dust towards the vacuum cleaner nozzle. In this way the dust is gently removed from object and trapped in the vacuum cleaner as opposed to simply moving it around with a duster. The different shaped brushes allow the cleaner to get into the myriad nooks and crannies on the large engines. As you can see no mention is made of a wipe over with a damp rag. In fact Dawn has threatened to do painful things to anybody who even suggests this.

It is very rewarding to see the difference that clearing the dust makes. The exhibits take on a new appearance and really look cared for. However this is just the first stage in

maintaining the objects. The next stage is to apply a fine coating of micro-crystalline wax. This protects the metal surfaces and also provides a display standard sheen. So far the FODMs team have only tackled the dust removal, more training will be needed before Dawn trusts us with the wax.

So far we have cleaned objects in the Story of the Tyne Gallery and the Tyneside Challenge gallery. After that who knows – maybe Turbinia and the Forth Banks steam turbine. If you would like to help with this vital work please contact Graham Bradshaw at [bradshawgraham@btinternet.com](mailto:bradshawgraham@btinternet.com) or telephone 0191 277 2330.



The pictures show David Murray getting to grips with the Armstrong gun and Parsons radial flow turbine in the Tyneside Challenge gallery.

[Click here to see FODMs other projects](#)

Graham Bradshaw

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## Helping The Discovery Museum



FODMs members are helping the Discovery Museum team to index the collection of Parsons Company Heaton Works Journals. Science & Industry Curator John Clayson says that the “Journals” are a treasure trove of information that is really useful for answering enquiries and preparing displays and talks. FODMs assistance with the indexing work will make it much easier and quicker for the museum team to access the information.

[Further Information on FODMs Projects here](#)

Graham Bradshaw

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## Memberships

If you haven't already renewed your membership you can pay direct into our Bank Account (Sort Code 20-59-42 Acno 53813487). Please remember to put your name as a reference

Adults: £15

Family membership: £20

Students: £10

Corporate (11 members): £150

Schools: £15

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