

HISTELEC NEWS

NEWSLETTER OF THE SOUTH WESTERN ELECTRICITY HISTORICAL SOCIETY

No. 23

APRIL 2003

“GREENER” SPRING TO YOU ALL

With the Government’s Energy Policy now publicised, the future electricity generation seems to be devoted to a target of 20% renewables by 2020, particularly wind farms with nuclear out of the window for the present. What an opportunity missed! See the next page for information on the subject by member Bill Harris.

ANNUAL GENERAL MEETING

The Annual General Meeting went off well. We had a good turnout and the speaker, Alan Stansbridge, was most interesting on “World Heritage Railways”.

The Officers and Main Committee were elected as follows :-

Chairman : Chris Buck
Vice-chairman : Roger Hughes
Treasurer : Clive Goodman
Secretary : Peter Lamb
Committee : John Gale, David Hutton, David Peacock, Brian Grimshaw, John Heath

South Sub-Committee (SSC)

Chairman : Ted Luscombe (also Main Committee)
Committee : John Ferrier, David Hood, Keith Morgan, Roger Christy

We welcome a new Chairman in Chris Buck and a new committee member, John Heath, to the main committee and hope that they will enjoy their time with us. We thank John Gale, Paul Hulbert and Mike Wreford (on SSC) for their past services, although Paul has agreed to continue as Membership Secretary ex-officio.

BBC2 PROGRAMME

The filming at Cairns Road Museum for the BBC2 programme “Every Home Should Have One” did go ahead in February. Our involvement included an old (1929) BTH Refrigerator alongside a newer Lec Fridge, which the BBC shipped in and have left with us for use as an exhibit or to sell as a working fridge. The film will be screened in April sometime.

WEB SITE ENQUIRIES

History enquiries have been unprecedented for January and February reaching 13, including one from Greece. Have you tried Professor Knowall?

SAD NEWS

Before reading the review of our Annual Luncheon, I would like to report the sad news that our speaker on that occasion, George Ashwood, died on the 1st March. He so enjoyed our company on that day that he had decided to join. He was in such fine form and it is hard to imagine that he has died so suddenly. The funeral was attended by 300 mourners, including Ken Whittle, John Bee, Charles Isherwood and many more ex-SWEB.

ARCHIVES

There have been some exciting developments for our archivists. Peter Lamb and Roger Hughes travelled 160 miles to Amberley Museum, near Arundel, Sussex to collect 40 volumes of Garcke’s Manuals from 1904 to 1956. They are the “bible” of electricity researchers, since they contain a fantastic amount of annual information about electricity undertakings nationally. One thick volume (4inch wide) was produced each year and particularly they contain information on the non-statutory undertakings. You may ask where did they come from? They were part of a collection of CEBG at Paternoster Square and were cleared out of there, when the office closed, to a National Power store at Didcot. Now Innogy have decided to dispose of them and they were offered to Amberley first, who have taken 6 to complete their run. Peter and Roger were confronted with a roomful of boxes of books, mostly unwanted. We are contemplating a second visit to collect “Electrical Reviews” and “The Electricians”, after Christchurch have had their pickings. Many of you may be inspired to visit the Archive Centre, where we now have a pleasant office to carry out research, with a photocopier to take prints from these books.

POWERGEN

It has been reported recently that Powergen intends to invest £120 million in renewable energy sources. The Group proposes to set up a wood burning power station, two hydro stations, an off-shore wind-farm, and the mainland’s most powerful wind turbines. Powergen wishes to be Britain’s leading “green” electricity generator under the banner of Powergen Renewables, with aim of producing 1,000MW of electricity by 2010.

THANKS TO ALL E-MAILERS

The editor thanks all those for the great response to John Haynes e-mail following the problems experienced.

RENEWABLE ENERGY FROM THE SEA SOME RECENT DEVELOPMENTS

TIDAL CURRENTS

Lynmouth- "Marine Current Turbines" and "Seacore Marine Contractors" (Cornwall) and others have a £1.5m project off Lynmouth. The project funded by the EU and the DTI, comprises a 300 kW single rotor mounted on a steel column founded in the seabed and extending to a platform above water level. The work was due to start in Sept. 2002. By 2004, a 3MW underwater farm of turbines using a 2-bladed rotor at each end of a horizontal arm mounted on the steel column.

Milford Haven- "Tidal Hydraulic Generators Ltd" has a project comprising a seabed mounted sub-surface nest of small bladed turbines 80m x 80m x 15m high. The technique devised in 1998 is a hydraulic accumulation system using relatively small revolving blades, which gather power to a central collector where electricity is generated. A prototype is being trialled at Milford Haven. The units can run for 10 years without service and are designed to produce electricity for more than 20 hours each day requiring a tidal current of only 2 knots. The project has been partly funded by the Welsh Assembly Environmental Development Fund and has potential to produce significant power without 'visual pollution'.

Yell Sound, Shetland- The Northumberland marine engineering specialist firm "The Engineering Business" (E.B.) has constructed STINGRAY a radical £1.8m tidal flow generator to be installed in 35m of water at Yell Sound in September 2002. Resting under its own weight of 180 tons, it uses a horizontal 172m² hydroplane to lift and depress an oscillating arm sweeping 20m in 15 second cycles. The action mimics a whale's tail or perhaps a village pump with a fin across the handle. Movement of the arm pumps 6 hydraulic rams connected to a DC generator in the base. The computer controlled generator briefly switches over to become a motor to reverse the pitch of the hydroplane, when the oscillating arm reaches the top or bottom of each stroke.

It is expected to generate between 150-300 kW. If the single STINGRAY proves itself, in order to provide a constant steady flow of power, peaks and troughs in generation can be moderated by co-ordinating 6-10 STINGRAYS by the same computer.

Tidal Lagoons. These would consist of circular impoundments located where the tidal range is high and there are broad tidal flats at minimal depth. These could be offshore away from habitats, but currents and sediments may be affected. Swansea Bay (30 MW) and Rhyl (432 MW) are under consideration.

WAVE POWER

Dounray The 2 MW pilot plant OSPREY oscillating water column generator due to have been installed in 1995 was destroyed by the sea before it reached its operational site.

Portnahaven, Islay In 2001 "Wavegen" commissioned an on-shore oscillating water column 500 kW LIMPET generator, which is feeding power into the Grid.

Orkney- In 2001 following the installation of an experimental unit anchored 1/2 mile off the Breakwater at Plymouth, "Wavegen" secured £2.3m Government funding to support the development and demonstration of a new floating wave energy device to be anchored off Orkney. Rise and fall of waves will force air up and down vertical tubes housing Wells turbines and generators. The turbine having aerofoil shaped fins invented by Prof. Alan Wells of Belfast, turns the same way whatever the direction of airflow. Dr. John Chudley and Mr. Fraser Johnson from the Department of Mechanical and Marine Engineering, University of Plymouth have been involved in the design.

OFFSHORE WIND POWER

The UK's first offshore wind farm (2 x 2 Mw) at Blyth was established in October 2000 and the Governmental consent has been given for the North Hayle off-shore wind farm situated 7.6 km off the N. Wales coast - max. capacity 90 MW due for completion by the autumn of 2003. Consent has also been given for a 76 MW Scroby Sands wind farm, construction due to start in 2003.

In 2001 the Crown Estate identified 18 offshore sites where wind power could be considered, also names of wind farm developers, who had pre-qualified. One site being developed is 5 km off Skegness 60-90 MW.

Ireland- "Ocean Resource" a firm of experts in hi-tech buoys, is constructing an 80m high 100 ton wind tower to be anchored a mile off the western coast of Ireland. When tested and proved, it is hoped to construct a 200-unit floating deep-water wind farm. **Bill Harris**

ELECTRICITY ASSOCIATION

You may be interested to know that the EA, the residue of the Electricity Council, have joined the Society. You remember I welcomed Karen Carden amongst the new members in the AGM notice, she is the EA's representative. We look forward to an interesting and reciprocal involvement with the EA.

MEMBERS NEWS

John Gale

John has bought himself a Evesham.com computer. We hope he will enjoy many hours with it.

John Muggleton

John has agreed to lend us his light-weight scaffold platform to assist in decorating Cairns Road second room, for which we are most grateful.

Harry Cardy

Harry has had a hernia operation, but is bouncing back with his usual enthusiasm.

Bob Horn

Is busy refurbishing his son's flat.

John Ferrier

Has bought a steam engine, see article later.

John Ashton

I am sad to report that John's wife, Margaret, died recently. Our thoughts are with you, John.

Gareth Dodds

Gareth is a legal consultant, involved in renewable energy projects – see end of newsletter.

FURTHER PENISTONE EXPERIENCES

Tony Lounsbach, new member, read an article in the last newsletter, by Colin Hill, about Penistone Electricity. In this, he made several references to the railway between Manchester and Sheffield/Wath-on-Deerne via the Woodhead Tunnel, with which he was involved.

As a Junior Engineer (trainee), I worked on the 1500 volt electrification scheme, working for British Insulated Callenders Construction Company (BICCC), who had the contract for all the overhead line work (including support masts). Having started in October 1950, I realised that it wasn't an electrical engineer that they wanted, but a structures draughtsman and I was never strong in drawing! The work consisted of arranging the catenaries and running wires through overbridges, keeping the necessary clearances. British Rail had a rigid standard for hot-dip galvanizing, so that any cut steel on site had to be returned for galvanising.

The BICCC office on the Western side of the Pennines was at Dukinfield, another at Sheffield for the Eastern side and a large steelwork store in the marshalling yard at Penistone. I can vouch for Colin's comments about the bleakness of the area. The Western entrance to the tunnel was well above the tree line, and for some months in winter, above the snow line. Those were proper winters!

When I started, the old steam locos were operating via the old Woodhead Tunnel, a train every 7 minutes, on a steep gradient (blower full on, throttle full open) and the masonry, so rotten that stones often fell out. A repair gang worked continuously in the tunnel. A BR Engineer told me that they spent most of the time with their caps over their faces.

The new system would use 1500v D.C. locomotives. The overhead system was supplied with D.C. from trackside substations via a transformer and steel tank, mercury arc rectifiers (MAR). As far as I can recall, the locomotives were equipped for regenerative braking. The problem with this setup is that feeding back through MAR is not possible, so arrangements had to be made to absorb the energy of a descending train by ensuring that there was an ascending train of about the same weight if possible, on the same electrical section; a timetable problem. Even with the best timing there comes a time, when there was insufficient electrical load to absorb the energy from a descending train. In this case, an on-board cast-iron grid resistor was switched to absorb the excess energy. In the ultimate, the loco and rolling stock were equipped with the normal vacuum brakes.

I had some sad and amusing experiences during my short time that I spent on this job.

Sad Occasions

The office at Dukinfield was some distance from Guide Bridge railway station where every morning I alighted from my short trip from Manchester and returned in the evening. A short cut was through the extensive marshalling yard at Guide Bridge. Going to work was reasonably easy, and the driver of a shunting loco often gave me a lift. Returning at night was a different ball-

game. In those days, before the Clean Air Acts, heavy industrial fogs were common. A busy marshalling yard under dark, thick fog conditions was a nightmare. You didn't know whether or not you were between the running rails, which track you might be on or even, if you were going in the right direction. All around there was the noise of shunting and locos on the move and clanking of couplings. Fortunately, the gloom was broken at intervals by "fogmen" who kept a brazier burning to help disperse the fog and to place fog signal detonators on the track, when the adjacent signal was "on".

One winter morning, I arrived in the office to be told that a foreman at Penistone yard had died after an accident, under such conditions. This was particularly sad, since he was one of the few guys in the Company, who was prepared to help a novice (me). I must confess that this did not deter me from taking my short cut. At twenty three years of age, nothing could happen to me.

A tragedy did occur, which highlighted the dangers of railway work at that time. There was difficulty in obtaining electrical clearance under the road bridge at Guide Bridge station due to rivet heads. A BICCC employee was sent to accurately measure the rivet pitches. Times and dates were agreed with BR who also provided a look-out (flagman). The job was easy, erect a ladder to the bridge supports, measure half a dozen rivet pitches with a rule and come home. However, an unscheduled "light" engine came along, missed by the flagman, struck the ladder and the man thereon died.

Amusing Occasions

These only seem amusing from fifty three years on and were not so at the time. The first such incident occurred, when I was out with a draughtsman/surveyor. We were on the West-bound track some 1000 yards from the Woodhead tunnel exit, a stretch of track known to us as Torside, quite a steep gradient. The ground on the North side of the "road" slopes down to a long, narrow reservoir some 400 feet below. The land on the South side, the side that we were on, rises steeply to the top of Bleaklow Hill, some 2000 feet. Beside the West bound track, there was a deep gully designed to catch migrant boulders and avalanches of snow. We heard an express emerging from the tunnel, so we scrambled down into the snow gully. As the express passed by, my colleague collapsed on to the ground, both hands to his face. My first reaction was that he had been hit by a piece of ballast, but on reflection, I had noticed paper fluttering from the train. I went to his aid, fearing the worst. I couldn't drive in those days and he was the only way of getting help. He recovered and staggered to his feet, there was a bright red weal on his right cheek, and the remains of British Rail ham sandwich at his feet. His eye was already starting to close and by the time that we arrived back at the office, it was already turning blue and yellow. We did not report this accident because my colleague felt embarrassed, but it does show what damage a stale "butty" can do at 85m.p.h.

Another amusing occasion arose, when I could not get electrical clearance for conductors through an overbridge at Fairfield Station. This busy commuter station included

Penistone 2 continued

a brick and stone road bridge, a considerable sized structure. There was no possibility that BR could raise the bridge, the tracks had to be lowered by some 8". BR agreed and would inform me when the work was done.

Over a weekend 24hr period B.R closed the West-bound track. Imagine the scene, hundreds of men with shovels, picks etc., (like the building of the Pyramids) scraping out the track bed for some 800 yards to the East of the bridge. The work was done on time and the track returned to service for the early Monday morning trains. Now, as the older readers will recall, with the old slam-type doors, there were always impatient passengers who wanted to open the carriage doors and leap out, whilst the train was in motion. On this particular Monday, these characters received a surprise, BR had failed to lower the platform! Bits of running board littered the scene, doors were wrecked and passengers were forcibly returned to their seats. Some passengers were for taking action against BR, but it was pointed out that the passengers should not open doors with the train in motion. Isn't this the small print on the back of the old cardboard tickets?

Another amusing episode occurred, when I was sent across to Sheffield Victoria Station to verify the track cross sections at the Western end of the platforms. A surveyor and a chainman met me off the train from Manchester. We collected a flagman (BR) and set about the job. This consisted of measuring the distance between running rails with a steel tape (for accuracy), and their vertical positions. We were at the final stages of the job when we noticed that the Harwich to Liverpool boat train was at the platform. This was a "crack" express that collected passengers from the Continent at Harwich and took them, at high speed and in luxury, to Liverpool where they boarded ships mainly for North America. As we carried on with our measuring, I noticed that the loco driver repeatedly descended and used a track-side telephone, whilst the safety valve of the resplendent locomotive continuously lifted and feathered. We completed our work, and as the train was still at the platform, I boarded, seizing the opportunity for a luxurious return to Manchester, its first stop.

The following morning, I was summoned to the bosses office, who asked what had happened. It seems that our steel tape had shorted out the track signalling system, returning the platform starting signal to danger every time the driver got a green. I left BICCC soon after that!

There was also an incident of conductor stringing. The overhead current collecting system depends on a carefully designed pantograph and a system of support catenaries and a cadmium-copper running wire. So that the "pan" does not leave contact with the running wire, the latter must be maintained at an accurate height above the rails. This is done by having a main support catenary and an auxiliary catenary. (This is for a 25kV AC system, but the arrangement for 1500v was the same, but with smaller clearances). From memory, the main and auxiliary catenaries were H.D. stranded copper, the running wire was cadmium copper, which some of you may know, is difficult to handle. The stringing of all the

overheads was done from a wiring train. A drum of conductor was mounted on a flatbed wagon, fed up over a higher platform truck where linesmen would clip it into its fittings, hangers etc. There was an attempt to string main, auxiliary catenaries and running wire simultaneously, but, as I recall, the single conductor method was favoured. The whole train was moved along with a small loco (a "Jitney") and the work, normally, proceeded smoothly over many week-ends. The time came when the drum-watcher took his eye off the drum and the end of the wire pulled off the cheek of the drum. This sprang out and coiled up right down the track like a very long helical spring, trapping one or two stringing personnel within. It occurred on a Sunday afternoon and the lads had to work through the night. Those were the days when "Engineering Work" was not allowed to inconvenience the paying passenger. There seemed to be a continuous saga of comical near misses - a bit like Dad's Army!

Tony Lounsbach

ANNUAL LUNCHEON REVIEW

Saturday, 25th January, turned out to be a fine day for our Annual Luncheon, which this year was held in Topsham. This should be pronounced, "Tops-ham" according to Mr Roy Wheeler a local historian. Evidently the name derives from a person called 'Top', who lived in the 'ham'let hundreds of years ago. We were told this by Roy during the talk he gave at our first port of call, the Topsham Museum. It is located in a former 17C sail loft, which became part of a house. Then as the home of the late Dorothy Holman, who was related to the Cornish engineering family, she donated the house to the town for use as a museum. Following Roy's talk we were able to view the exhibits and though small, the museum holds more than you would expect and is well worth visiting.

After the visit it was off to the Globe Hotel just along the road. Here we had a good lunch followed by a talk given by our guest speaker, Mr George Ashwood. He outlined his career in the gas and steel industries, before joining SWEB, where he held a number of senior managerial posts before retirement. The talk included a number of anecdotes and there were a few wry smiles and chuckles, when he spoke of the former pay & productivity and job evaluation schemes, such as MBYO (Management by Objectives), all of which he helped to introduce. These times were recalled by many of the older members of his audience with much humour. It was pleasing that we were able also to entertain George's friend, Carolyn, the widow of the late Michael Harman, who died in harness as SWEB's Communications Manager.

To round off the visit in the afternoon some of us explored Topsham Town Quay Antiques Market, which is held in a former grain store. In total some seventy members and friends attended what was a great day out. Many thanks to all those, who made the arrangements.

John Redgrove

Letter from Geoff Hoyland thanking the organisers of the above event, included the following comment on George Ashwood's talk :- "we need to be reminded now and again of the times we all lived through".

(Interesting comment, how true Ed?)

HOW ONE THING LEADS TO ANOTHER AND WHY I NEED AN OLD METER ENGINEER

I have long been fascinated by Ferranti. They were based just “over t’ top” from us in Oldham and they made everything electrical from super-grid transformers to computers to missile systems to...clocks. Plain, ordinary mantelpiece mains synchronous motor driven clocks in all manner of styles. I have a few in the house. They are well made and look good. Imagine my pleasure when I found a 12-inch diameter Ferranti wall clock with a beautifully figured face in Halifax Antiques Centre. The glass was broken and it was knocked about but it was cheap. I managed to cut a circular glass from an old piece of window glass and I tidied it up so it looked like new. But not quite! Stuck to the back with a bit of tape was the large seconds hand. Why? Because the two necessary drive wheels were missing. Why? I’ve no idea. I put it together and set it to work without this hand and made a mental note that maybe a similar motor would one-day turn up in Oldham Second-hand Market. No such luck as yet.

Two years later I was contemplating a junk stall in Huddersfield second-hand market when I spied a book: “Electric Clocks and Chimes – A Practical Handbook on their Design and Construction” dating from the 1920s (well before the National Grid which brought mains synchronous clocks to the fore). I parted with £4 and, before the book was in my pocket, a voice said “I’d have bought that if I’d seen it before you. Are you a clockmaker?” This was Bob, who I discovered was over 80 and a horologist. He said, “If you need any wheels, I’ll cut you ‘em”. My thoughts turned Ferrantiwards. He was as good as his word and cut one wheel but the other was too small for his wheel-cutting machine, so I’m half way there.

One day the phone rang and it was Bob: “Can you pop into Revenue Chambers in Huddersfield for me, please? On the top floor is a clockmakers’ supplies store. Could you get me a price list please?” Of course. I went exploring to this fascinating place. “Are you a clockmaker?” asked the proprietor. “No”, I said, “but I collect old electric clocks”. I expected scorn but he responded “I’ve an electrical item here”. He dug into a cabinet and produced an amazing box of tricks. It is fairly well known that in the early days of electricity, Aron produced a clock-type meter, which, in effect was two spring driven pendulum clocks. There was one normal, free pendulum and one iron weighted pendulum swinging through the magnetic field produced by a coil in series with the supply to the premises. As the current increased this was slowed and the time difference between the two clocks indicated the energy consumed.

The thing before me had two pendulums with a coil on each one. There was a note in the box. It said: “Aron Clock Watt-hour Meter, circa 1890: The clock metering principle is based on two electrically wound pendulum clocks mounted on a common framework. The bob on each pendulum holds a flat circular coil, the two coils being joined in series and excited from the voltage of the supply. These pendulums swing back and forth over two fixed coils (these are missing) each connected in series

with the line but wound in opposite directions. If no current passes in the series coils the pendulums swing identically and their motion, transferred through ratchet drives to differential gearing and thence to a recording train, imparts no movement to the dials. If, however, current is flowing in the line then one pendulum bob experiences a force of repulsion and one of attraction. The result is a difference in the period of swing of the two pendulums, which is transferred through the differential gear to the register. This type of meter was outstanding from the very first by virtue of its straight-line characteristic and its maintained accuracy down to very low loads. The high accuracy is achieved by a high standard of workmanship and the clockwork mechanism and by elimination of errors due to inequalities in the two pendulum systems. To this end the meter mechanism includes a device for periodically reversing the direction of the current in the pendulum coils. At the same time the drive from the differential gear is reversed to prevent the recording train from running backwards”.

Fiendishly clever! As I look at this device I can see two pendulums two escapements, two differential gears, change-over switches and reversing gears with about 34 toothed wheels all crammed into a frame the size of a smallish clock. The connecting wiring is missing. Is there anyone in SWEHS with experience of these meters? Does anyone know where I might find some fixed coils? What is meant by “electrically-wound? There is no spring. Would the meter have worked on AC or DC?

Help!

Colin Hill

(Tel : 01484 666206)

BOOK REVIEW

“FARADAY A LIFE” by James Cameron

A new biography of Faraday has been published recently. It got a slating by the IEE, which inspired me to read it! It is both an interesting and a “heavy” read, because it is exceptionally detailed and analytical. The author is trying to get to grips with the mind of the man for two reasons. Firstly Faraday and his wife were both brought up in a little know Christian sect called “Sandemanians”, named after the Scottish founder, and continued all their lives with Faraday becoming an elder of his church. Secondly Faraday never patented his inventions, allowing others to take out patents in their name. He believed he was discovering how the world ticked and was doing a service to man. In order to understand Faraday’s motivation, the author details numerous letters to and from Faraday, which towards the end gets very tedious.

The most interesting parts of the book are the numerous contacts with the many well-known philosophers (scientists) and engineers of the period. He was in regular communication with both Oersted and Ampere. This period seems littered with “stars” of the industrial revolution, such as Humphry Davy, who was his mentor in the early years and Brunel as a young man, who came to listen to Faraday’s lectures. One thinks of Faraday as an electrical engineer, but then you realise that both Davy and Faraday were both chemists or chemical scientists working mainly with elements and gases. He was of course the first electrical engineer. *Peter Lamb*

FERRIER'S STEAM ENGINE

Its all Roger Christy's fault really as he sowed the seeds of an idea some years ago, that we should go halves in the acquisition of a 3.5 or 5 inch gauge steam engine that would run on trestle track and pull a few passengers.

Through my main railway interest - that of exhibiting a 3 Rail Hornby Dublo 00 gauge layout, which I built soon after I retired, I received an invite to a 7 1/4 inch gauge garden railway. A group of friends meet there about once a month for a "Running Day" when rides are given to friends and visitors and on other days for construction and maintenance purposes. I was immediately hooked on the scale due to its operating potential, real signalling system, viaduct and tunnel in a superb setting, and became one of the gang and joined the 7 1/4 Gauge Society, a National organisation. Shortly afterwards they held their AGM Festival, which luckily that year was at Pecorama in South Devon. I attended and became convinced that owning my own loco was achievable.

So last September I attended the next AGM Festival - in Scotland - where I located a suitable engine for sale. Its home then was in Cumbria, where it was built about 5 years ago, and the owner/builder needed the space to start another one - his fifteenth! On the way home from Scotland I viewed and test drove it and we subsequently did a deal. It was delivered a week later to the Tretheake Mill Railway, where it is now stabled, and where the photowastaken.

It is a quarter scale model of a French Decauville locomotive, an industrial shunting engine first seen and photographed about 25 years ago working in a Greek brickworks. Other locos were later discovered in a dilapidated state and also photoed and these were subsequently published in the Model Engineer (ME) magazine. A set of drawings based on these prototypes were made and published, and the model constructed from those drawings, which also appeared in the 'ME'.

My initial requirements were for 'something which I could transport in my Vectra Estate', and it does that with ease - it is small enough to fit into the boot only, including its associated driving trailer. This is the only significant way in which the model differs from the prototype, as the latter carried its only water supply in its side tanks, whereas the model has a 3 gallon tank below the drivers seat - a system common in this gauge. Boiler capacity is 1/2 gallon and the side tanks take 2 gallons, which is used as ballast for additional adhesion only. A normal day's running consumes about a large bucket of coal and when empty the loco weighs about 1 cwt. It steams at 85 psi max and has 1.5 inch diameter cylinders

The builder named it "Asterix" after a French cartoon character - short and strong - and as far as I am aware is the only one ever built. It runs beautifully and pulls 5 adults up a 1 in 100 gradient - on dry rails that is - and gives myself and others a great deal of pleasure.

Any member holidaying in this area would be most welcome to visit, please get in touch early so a suitable steaming day can be arranged. **John Ferrier**



John Ferrier on his steam engine enjoying himself

GARETH DODDS DOINGS! (from Member's News)
Gareth, a founder member, retired from SWEB then worked in Bristol as a solicitor for some years before retiring again. He is now a legal consultant on renewable energy projects, which is very relevant to this particular newsletter. His projects include cowshit/pig shit/chicken shit/Cornish pasty fat wastes for anaerobic digestion (Project 1 – 3MW) and commercial/domestic municipal wastes for gasification (Project 2 – 10MW). He says that he is therefore up to his neck in it, so there is no change!!

Gareth Dodds

FOR YOUR DIARIES – a Reminder PROGRAMME for the NEXT HALF YEAR

Sat. 26th Apr. VISIT BATH AT WORK MUSEUM

Bowler Collection -Lunch at a Pub followed by a conducted tour of this fascinating Museum.

Sat. 17th May VISIT MORWELLHAM QUAY

Meet between 10.30-11.30am for coffee and film and organised tour with stop for lunch on the Quay, also including train ride into the mine and maybe the hydro power station.

Sun. 29th Jun. VISIT GREAT WESTERN CANAL

2.00pm Enjoy the delights of a horse-drawn barge, beforehand lunch at the Tiverton Hotel.

Sun. 27th July SUNDAY LUNCH AT A SIDMOUTH HOTEL Meet 12.00noon – more details to follow.

Sat. 20th Sept. MEETING AT EXETER- “Redruth & Chacewater Railway & Mines it served 1824-1915”

A talk by Joff Bullen at the ISCA Centre 12.30pm for buffet lunch & talk starting at 2.00pm

NEXT EDITION

This newsletter is produced every four months depending upon material available. Please send information, articles, photographs or letters to :-

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REPORTED IN 1911

Hilaire Belloc wrote “Lord Finchley tried to mend the electric light himself, it struck him dead, and serve him right. It is the business of the wealthy man to give employment to the artisan”!