THE TREVITHICK SOCIETY

KOWETHAS TREVITHICK

NEWSLETTER 168 SUMMER 2015

AGM 2015: Chris Quick and Kingsley talk about Levant (top)
Boys' toys at Moseley Museum (bottom)

Reg. Charity
No. 1,159,639

EDITORIAL

This newsletter has been delayed whilst Council has been deliberating the need for successional change. At the Council meeting in January, Phil Hosken announced that he was going to retire as Chairman. He has repeated this assertion several times since, most recently clarifying that he “intends to leave at the end of the year”. Clearly, this means Council urgently needs to sort out a successor to ensure this transition has been seamlessly completed before the end of 2015.

Phil has done an extraordinary amount of good for the Society since becoming a Council member in the late 1990s. He soon joined the team that were planning the construction of the Puffing Devil, proving to be one of its key members, such that he can justifiably claim to be one of the people without whom the engine would never have re-enacted the epic journey “Up Camborne Hill”. Subsequently, when he became Chairman he, through considerable effort on his part, steered a number of other projects to fruition and modernised many of the activities of the Society. We owe a great debt of gratitude for the good things he has done. However, after more than a decade as Chairman, Council fully appreciates that the time is right for change and fittingly, the end our 80th anniversary year, is the most appropriate time for this to occur.

The Trevithick Society can undoubtedly look forward to a new era with the prospect of a period of rejuvenation, whilst at the same time re-focusing on its core activities, to ensure it continues to build on the tremendous legacy bequeathed by 80 years of serving, and in some respects pioneering, the field of Industrial Archaeology. There is certainly much to discuss at Council as we reformulate and plan the way ahead.

Colin French
Copy date for next newsletter: October 15th 2015

I apologise for the delayed appearance of this newsletter, which is too late for some of the events it was meant to advertise, such as those at Levant. Upsetting as this is, I hope that, following the recent extraordinary events at Council, the reason for this delay is understood and the apology accepted. Normal service will be resumed.

TM

Established 1935

KING EDWARD MINE

The season is now well under way and we have welcomed a number of new volunteers who are settling in very comfortably and proving to be an asset to the site. As I write this we have had one of the busiest days we have ever had. Long may it continue.

Work continues to keep the site in order with the ground crew continuing hedging, trimming grass cutting etc. Within the last couple of weeks we have had felled fifteen trees which lined the public road on the approach to our site. These had become dangerous with large pieces regularly dropping off and after examination by a tree surgeon felling was the only option. These will be replaced with indigenous species.

The archaeological dig is still ongoing uncovering more of the stamps engine house and we have discovered a stone built culvert which is thought might be the boilerhouse drain but more excavation is needed to prove the point. Member Graham Sowell continues to delve into the Brunton calciner site and is currently tracing the remains of the flue.

In the boilerhouse area, behind the shop, preparations are being made to display the Restowrack beam engine and also the china clay skip winder engine. The boilerhouse has now been entirely cleared in preparation for the installation of the new displays and audio visual to introduce visitors to the site and its story.

At the top or north end of the site the builders are nearing completion of the refurbishment of the counthouse block. The scaffolding has just been removed and the buildings are beginning to look quite attractive.

K.J.T.R.

REDRUTH BREWERY EXHIBITION

I am sure readers will be familiar with the fact that a replacement record office for the Truro office is currently being built on the site of the old Redruth Brewery. This will be a much needed improvement as the current office is too cramped and outgrown its usefulness. Cornwall Council have been holding public consultations and had many discussions with a variety of groups to get the feel of what the public requires. To assist the Council in their endeavours the society is staging a display at the Cornwall Centre, Alma place, Redruth to promote the new venture. When the brewery closed the Society was allowed to remove many artefacts that were of historical importance. In fact a large number of Society documents pertaining to the brewery are now held by the Record Office. The display at the Cornwall Centre will be of Redruth breweryana with some promotional material for the new office. The display will be mounted during the last half of September and any members willing to help should contact the Society chatline on 01209 716811. Unlike when we cleared out the old brewery site there will be no free beer!

K.J.T.R.

2015 AGM WEEKEND
15th - 17th MAY

In recognition of this being the Society's 80th anniversary year, the AGM Weekend was arranged with reference to sites and areas with which the Society had been particularly involved. Appropriately events began on the Friday afternoon at Levant where an enthusiastic party were given a conducted tour by volunteer and Society member, Chris Quick with assistance from Ron Flaxman. The weather was glorious and such was the level of interest that only part of the site was covered in the time available. Some lucky souls were able to drive the Levant engine under supervision. The saving of that engine is the act from which we trace our history and that evening Kingsley Rickard took up the story in a detailed survey of our first 80 years; this also benefited from a number of contributions from the floor, notably from our Chairman, Phil Hosken.

Saturday morning saw some 25 members gather at West Basset Stamps for a Field Trip led by Kingsley, which benefited also from the presence of Allen Buckley whose new book, Wheal Basset: Five Centuries of Mining at Carnkie, is an essential companion to any visit. The West Basset site is a mineral processing site of national importance

Rampant undergrowth at West Basset

and cannot fail to impress but we were saddened by its overgrown state. The valuable conservation work done here over the years is now seriously at risk from encroaching vegetation. So often, it seems, no provision is made for ongoing maintenance of these sites, or, where it is, it becomes an easy victim of spending cuts. Lyle's Shaft was also explored. As at Levant, time pressures prevented a look at the Basset Stamps across the valley and so the party moved to The Countryman Inn at Piece for a hasty lunch.

Kingsley evangelising! Photo: Diane Hodnett

A grey morning gave way to a fine afternoon and those still standing gathered at King Edward Mine from where some cars departed to begin the afternoon session at Marriott's Shaft, South Wheal Frances. Following a detailed examination of this monumental late nineteenth century site, we processed via Pascoe's and Daubuz Shafts towards King Edward with a final stop at Fortescue's Shaft, Wheal Grenville. Sadly time pressures prevented a call at the Grenville New Stamps. King Edward Mine

then hosted the Society AGM, chaired in his inimitable fashion by our President , Bryan Earl. The meeting formally approved the Society's change of status from Registered Charity to Incorporated Charitable Status and adopted the new Constitution as approved by the Charity Commissioners. Chairman, Vice-Chairman and Treasurer were re-elected but sadly no candidate for the vital role of Secretary appeared. An excellent day ended with a most enjoyable Annual Dinner at The Lowenac Hotel for 27 members.

Sunday found us at King Edward where Allen Buckley was signing copies of his Basset Mines book. An outdoor tour of the site enabled members to see the major investment in the buildings and to be updated on the significant archaeological activity in the vicinity of the South Condurrow stamps engine house. A comprehensive tour of the mill was led by member Nigel MacDonald with the Californian stamps roaring and all the processing plant, various tables and the Frue Vanner in operation. This made a valuable contrast with the set-up at West Wheal Basset. The final session of the AGM Weekend took us to Moseley Museum at Tolgus Mount, Redruth. Here thanks to Colin Saxton and his volunteers, we were given full range to explore the wonderfully quirky collection of historic toys, see the Murdoch Flyer in steam and ride in a colliery carriage behind a two foot gauge battery locomotive on almost a half mile of track. Here again a few brave souls, your writer included were able to indulge their engine driving desires.

The Moseley Museum visit made a splendid end to a weekend which all seemed to find enjoyable. It was, as always, good to meet old friends and make new ones. If you weren't there and would like to know more, the now traditional Tour Notes are still available from Kingsley Rickard at a cost of £3.00.

The 2016 AGM will take place in Mid Cornwall over the weekend of 13/14/15 May.

Graham Thorne

Real industrial archaeology at King Edward Mine

CARBON NEUTRAL STEAM PROPULSION

Not far from Ding Dong mine there's a secluded little green oasis where trees grow in abundance and provide more than sufficient fuel for Graham to feed his steam engine with bio-mass. Graham and his pals have been engineering a remarkable combined heat and power unit. Based on theoretical understanding, engineering skills and a passion to create power from the abundance of nature's rich store of energy that grows all around them, this has been a labour of love with an aim to reduce fossil fuel emissions and provide the world with cheap, sustainable transport. Created by trial and error the engine that is evolving impressed the Crowd Funders who attended its workshop demonstration. The speed it achieved 1000 deg. Centigrade captivated the little crowd.

The objective of Graham Waldren, Mat Thompson & Richard Blackborow is a modern, efficient Rankine Cycle engine to follow in the footsteps of Cornwall's inventive genius. This has included the 'shoestring durch technik' manufacture of a water tube boiler, the creation of a compressed air propelled bicycle to test the engine and the adaption of a recumbent tricycle.

See the videos for yourself at http://zennorphoenix.org.uk

P.M.H.

TORPEDOED OFF THE NORTH CORNISH COAST

During the course of research into the Cornish shipping industry that kept the mining, manufacturing and clay industries in production for two hundred years, we have come across the Shipping Index in Kresen Kernow, the Cornish Studies Library in Redruth. Prepared by Richard and Bridget Larn it contains thousands of cards detailing shipping losses around the British coast. It was the North Cornish coast that caught our eye, especially a period during the Great War.

The following is not a concise record of the details contained in the index during the period 1915 to 1917 but reveals something of the dangers from enemy action faced by shipping in Cornish waters. It is clear that German submarines caused havoc among the local and international shipping fleets. While there are the usual, but sad, accounts of ships that foundered, were abandoned or involved in collisions, the numbers that were lost to enemy action is quite staggering. In many cases the numbers of those drowned are also recorded.

The records do not always use the same description of a ship's fate. For instance there is 'shelled by submarine' or just 'gunfire'. Very often there is the one word 'torpedoed' or 'mined'; whether the latter means that the ship struck a mine or was hit by an unseen torpedo is not clear.

Some ships were described as 'bombed' although it's not clear what that means as military aircraft were in their infancy. Whatever the reasons, a great number of small ships and fishing boats were sunk off the Cornish coast. Many were wooden sailing boats. Locations are given as '6 miles off Trevose' or 'close to Pendeen lighthouse'.

In the two years 1915 and 1916, nine ships were described as shelled by submarines, four were torpedoed and one mined. It was in 1917 that it became extremely dangerous to venture out of harbour but ships continued to carry coal from South Wales to Spain or little fishing boats sought to catch food for the Cornish markets. During that year fourteen ships were sunk by torpedo, four were mined and no less than 39 were shelled. Of these, seven were wooden smacks sent to their doom on the 30th January and another eleven on the 12th March.

These were little Cornish fishing boats. Whatever did the enemy think they would achieve by sinking these harmless fishermen? One can only imagine that a submarine would have risen in the midst of fishing fleets and fired at will, rather as one does at defenceless sitting ducks. The impact of these sinkings in the communities and the losses of their crews must have been tremendous.

The story of local shipping has received little attention alongside the land based industries but it was essential to Cornwall's prosperity and livelihood. A study is being undertaken by the Institute of Cornish Studies at Exeter University, Tremough in conjunction with this society. In a recent presentation, two students of local history, Alexa Bowden and Oliver Steer, explained their research into the history of a Cornish owned ship, its crew and activities.

Clearly, locally based shipping has been an essential part of Cornish life and industry. It is a complicated subject that requires examination and research. There are many opportunities for people to choose whatever aspect they would like to examine. They are welcome to share the work that has already been done. Their contribution will be interesting, rewarding and much appreciated.

If you are feeling the call of the sea, please make contact with Dr Garry Tregidga at G.H.Tregidga@exeter.ac.uk or me.

P.M.H.

... IN THEM THAR HILLS!

In the six years prior to my involvement with the Trevithick Society I published and edited a magazine for the Cornish Diaspora called Cornish World. That has continued to provide me with links to the overseas Cornish and an opportunity now to republish an item from the Chemical & Engineering News, a publication of the American Chemical Society. It was sent to the Southern Sons of Cornwall, based in NSW Australia, by Bill Curnow, a former chemist who lives in Port Charlotte, Florida, US.

'Designed around 1600 B.C. 'The Nebra Sky Disc' is the only representation of the cosmos from prehistoric Europe. Its 13-inch wide (33 cms) bronze base is inlaid with gold representations of celestial bodies, including the Pleiades constellation, the moon, and what is thought to be a solstice (depicted by several curved gold bands). After resting underground in the German countryside for nearly 4,000 years, the disk was dug up by looters in 1999, sold on the black market, then retrieved in an international sting operation two years later. It now resides at the State Museum of Prehistory, in Halle, Germany. Martin Radtke of the Federal Institute for Materials & Testing, in Berlin, has also played host to the disc, focusing synchrotron radiation on the gold inlays to learn about their purity and trace elements. These analyses revealed that the gold decorations were added in various stages during the disk's fabrication; in particular, the curved bands that surround the disk were added last. Additional work revealed that the gold originated from Cornwall, an example of early European trade between Germany and England [sic].'

Bill Curnow added, 'The disk weighs 2.2 kilograms (nearly 5 pounds). So it's a good sized chunk of metal. In addition to being made with Cornish gold, Cornish tin was used to manufacture the bronze used for the disk backing. Since 1600 B.C. is roughly one millennium before the Celts arrived in Cornwall, this remarkable artifact [sic] provides good evidence that the early Briton people – the original inhabitants of Cornwall – knew all about the mineral wealth of their land.

While we tend to think of Cornwall's mineral wealth in terms of tin and copper, other metals (gold, silver, lead, arsenic, etc.) are part of the bounty within the granite backbone of the Cornish peninsula. Marie Curie discovered radium while working with a sample of uranium ore from a Cornish mine.'

See also
http://www.celticnz.co.nz/NebraSunDisk/NebraSunDisk.htm

P.M.H.

DID YOU KNOW ... ?

According to Trevor Simpson in his book *Diary of a Cornish Fisherman: Newquay, 1962-1967*, Jimmy Treloar, who 'stood tall and straight' and had 'been born in the reign of Queen Victoria', always had a great fund of stories about how he handled a four-in-hand and had been the chauffeur to Jack Trounson of Camborne. Apparently, Jack had a 'Sleeve Valve' Daimler, one feared by mechanics of the day for its silent operation and dastardly

Guillotine treatment of their fingers. Daimlers were the choice of the Royal Family, possibly because of their mutual German ancestry.

P.M.H.

NEW BOOK FOR AUTUMN

Our autumn book this year is the definitive history of Wheal Vor by Tony Bennett. This is one of the great untold stories of Cornish mining and is part of our continuing mission to fill those gaps. Great Wheal Vor is a substantial volume and publication has been possible thanks to generous support from the Cornish Mining World Heritage Site, which is gratefully acknowledged.

It will be published as a large format paperback at around £25.00 but there will be a limited edition of 100 hardbacks at around £45.00. There will be quite a demand for these and so I am happy to take reservations from Society members for the hardback edition, preferably by email or by post at the address on the back cover of this Newsletter.

Graham Thorne

DING DONG

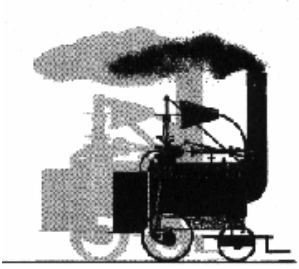
Douglas Cook, who lives at Ding Dong Cottages, got in touch with an enquiry about our Ding Dong book. He has holiday lets up there, details of which can be found at his website http://www.dingdongcottages.co.uk/Info/wherearecottages.html or telephone 01736 363677. His website has a link to ours. A good place to stay and explore some of Penwith's mining past.

Graham Thorne

ALAN THOMAS 1931-2015

From Ireland comes the sad news of the death of Alan Maclean Thomas, the last Cornish Mine Captain to work at Avoca Mines, thus bringing to an end a line stretching back to the mid 18th Century. Alan was born in Pool; his father had worked at East Pool from 1912 and later became Secretary of South Crofty. Alan graduated from CSM in 1953 and spent much of his early career in South America. After a spell in Derbyshire he arrived in Ireland in 1970. He was to spend the rest of his working life there, bar a short time in the Sudan. He never lost touch with Cornwall, retaining a deep interest in its mining history, particularly East Pool and Agar which he researched and wrote about. The Society hopes to publish some of his work on East Pool in the near future. Alan's was a very Cornish life and career and he clearly was much loved in his adopted country. The Society sends its sympathy to his sons, Alan and Michael, and daughters Ann and Mary.

Graham Thorne



SOUTH CROFTY INCLINE CONVEYOR

During redevelopment at the South Crofty mine in the late 1970s it was decided to install an underground conveyor in the First Stub Decline roadway to transport ore from the 400/420 levels up to the ore pass at 380 level.

The decline had a gradient of 1 in 4 with the conveyor installed on the eastern side and a track for the movement of material on the western side.

The conveyor belt width was 30 inch (750mm) and equipped, from new, with National Coal Board (NCB) type Solid Woven Flameproof underground belt supplied by Scandura Ltd. of Cleckheaton in West Yorkshire, my employer, and was to full NCB specification Type 4 with PVC covers. The Type 4 belt had a tensile strength of 4000 pounds per inch width, i.e. for every inch of belt width the breaking strain is 4000 pounds or 1.8 tons. Therefore, for a 30 inch wide belt the breaking strain would be 120000 pounds or 53.6 tons.

As supplied new, the belt was made windless with the Scandura Vee Butt joint installed by a local belt maintenance company based in St. Austell. One of the advantages of endless belting is the elimination or ore fines and moisture dropping through the joint onto the return belt strand which can cause problems with belt tracking, etc.

With a conventional plied type belt the endless joint is made by stripping the plies in each belt end in a step formation and bonding them together in a heated press to form the endless joint. Solid woven belt is woven on a loom, similar to those used to weave cloth – but much bigger, therefore the belt ends cannot be stripped back as in plied belt. The splicing technique with sold woven belt is cut fingers in each end, with one end offset to the other to ensure joint centralisation when the joint is completed. The finger length depends on the strength of belt being spliced i.e. the greater the belt static strength the longer the fingers. The finger width at the base of the belt end is 2 inches tapering to zero at the tip. After both ends have been prepared they are then placed between two heated radiators, a bonding agent is added and heat applied to the radiators for a specified period of time dependent on the static strength of the belt being used.

At the time of the initial installation in the late 1970s the type of mechanical joint suitable for an underground incline conveyor similar to the South Crofty incline drift was the NCB Approved MRE fastener developed by the NCB at their Bretby research establishment and supplied by two belting accessory suppliers. These joints usually gave a static tensile result of about 50% of the actual belt tensile. A Scandura Vee Butt endless joint usually gave a static tensile of 80+% of actual belt tensile, and static tensile strength results over 90% have been achieved quite often during routine testing.

The only problem with endless joints is the down time required to complete a joint. This is up to 12 hours on large underground installations, and once removed a joint cannot be used again. With a hinged mechanical joint the installation time is short, usually well within an hour, and, if in good condition, the joint can be used again. With endless joints spillage through the joint is eliminated, but not with a conventional mechanical joint.

Cost wise endless jointing is expensive compared to the installation of a mechanical joint. Besides the extended down time required to make the joint, the initial equipment costs are high, and if only used periodically it amounts to a costly item lying idle. If jointing is to take place underground in a FLP mine the equipment will have to be full FLP approved, which increases the cost tremendously. Usually endless belt jointing is carried out by conveyor maintenance companies who have the necessary equipment and expertise. Mechanical fastener installation costs are relatively low compared with a splicing press and can be used on a variety of conveyors by the mine work force.

In the early 1980s Scandura

started to supply a high quality stainless steel belt fastener to the UK coal mining industry which was manufactured by Mato industries Ltd. of Germany. We achieved considerable success with the fastener throughout the UK coal mining industry and I was requested to install a trial joint on the South Crofty incline conveyor with a view of supplying equipment to enable the mine to carry out its own jointing. The trial joint was a success and the mine did purchase Mato 750mm wide air operated belt joint maintenance equipment together with a set of 750mm wide Mato belt clamps.

When the Mato jointing equipment was delivered to the mine, arrangements were made to carry out training programmes underground with the mine maintenance staff in the junction area just below the 380 level. Jointing procedure was to clamp the belt on the bottom strand each side of the joint area, the old joint cut out and a replacement installed using the air operated lacing head in a safe working environment.

With a mechanical joint the two belt ends are connected together with a connecting pin, usually manufactured from a twisted wire material. One of the problems with mechanical fasteners is leakage of material fines and liquids through the joint area of the belt. The Mato fastener and joint connecting pin are manufactured from high quality stainless steel which has a high resistance to acidic materials and liquids. Due to the design of the fastener spillage through the joint area is minimal and to reduce spillage even further joints can be supplied with a PVC foam bonded within the fastener hooks which nearly eliminates spillage through the joint area.

One of the benefits with most conveyor installation is its adaption for “man riding”. Installing the necessary Health and Safety equipment can be used for the transport of men, especially on incline installations similar to the South Croft incline conveyor. This system was widely used in the UK coal mining industry to transport men in both directions from the pit bottom to the coal face saving many man hours and effort. I have visited many coal mines throughout the UK equipped with man riding conveyors from 1 in 4 drifts to level coal carrying trunk conveyors in excess of 4000 yards in length. I can certainly vouch for the saving in man hours and effort in riding these conveyors, especially up 1 in 4 drift roadways. The conventional conveyor structure can, at minimal cost, be modified with the appropriate safety equipment to transport men in one direction. To be able to transport men in both directions entails a different type of conveyor structure, double the amount of safety equipment and possibly an increase in roadway dimensions, which may be necessary to accommodate the two way man riding structure, increasing the initial installation costs tremendously.

Norman Tarry

NEW SURVEYS AVAILABLE

Over the years the Historic Environment Service of Cornwall Council has published reports on the work it has undertaken. These are available at Kresen Kernow, the Cornish Studies Library in Redruth and have ranged from St. Just Mining District to Cornish brick making and an archaeological assessment on the wave hub at Hayle.

A number of new reports have recently become available including:

Geevor Mine
Redruth Tin Smelting Works
King Edward Mine, various
The Quarry, Castle an Dinas
China clay bearing grounds, UK
Landscapes, World Heritage Site
Tolgus Arsenic Works, Redruth
New Cook’s Kitchen Shaft, etc.
Trease, Pendeen

For more details, contact:
cornishstudies.library@cornwall.gov.uk
or 01209 216760.

P.M.H.

LEVANT REPORT

The summer season is now well under way with the engine in steam six days a week. Recently the submersible electric pump that supplies water from the cooling pond to the condenser cistern failed. This had been in service since the initial refurbishments were completed by the Greasy Gang in 1993. For the short term we filled the cistern with mains water to enable the engine to run for very brief periods, but unfortunately the engine did not steam fully for four days until a temporary pump was sourced and fitted. A permanent pump has now been placed in the cooling pond and the engine is in full steam.

The replacement steam pipework needed to be modified to ensure a good seal against the engine regulator valve. It is now fitted and all joints are steam-tight, thanks to Penzance Dry Dock working on a Saturday with their coded welder. Corrosion to the condensate pipework in the boiler house has now also been rectified.

Work is progressing well to reconstruct a dressing floor adjacent to the newly finished working jig.

Despite efforts to preserve the Engart upcast fan fitted by Geevor some 45 years ago, it has now reached a dangerous condition due to salt air corrosion as numerous pieces are falling off. Our custodian is currently writing a management plan to consider various options.

The number of visitors continue to increase compared to previous years, and several school trips and events with Geevor have been organised. The screening of the new Poldark series has certainly boosted interest in the area.

Events at Levant:

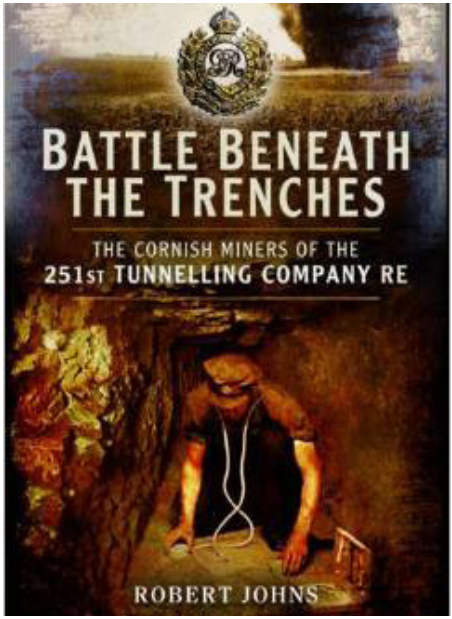
- The Fathers Day event with Neil Burridge smelting bronze was well received and will be repeated on Sundays 9th and 30th August 11 - 4pm. Neil will be smelting tin and copper and turning it into bronze artifacts. No booking necessary.

- Wednesday 12th August 6.30pm - 10pm - 'Close to the Edge'. An evening walk from Levant to Botallack with Mark Harandon telling tales of mining carried out under the sea. Ideal for children and families. The engine will be in steam by candlelight and booking is essential. Places can be booked at Levant on 01736 786156.

A word of appreciation to Kingsley Rickard and Graham Thorne for organizing a great Trevithick Society AGM weekend. The notes prepared by Pete Joseph were exceptional and very well produced.

I gave a lift to someone who left their OS Explorer map No. 104 in my car. Please contact me on 01736 364757 if you would like it returned. Finally, rumour has it that next year the AGM weekend will be in the china clay area of St. Austell. It is hoped that with the co-operation of Imerys, that they may permit us to run the Parkandillick Engine. Early days yet but this would be a rare opportunity to see a pumping engine working that has not run now for very many years.

Ron Flaxman



Battle Beneath the Trenches: The Cornish Miners of the 251st Tunnelling Company. Robert Johns. Amazon and Kindle

If he had to go, what would be the best way for a brave Cornish miner to go war? Burrowing underground. The following is taken from the Amazon review.

'Undermining the positions of the enemy is one of the most ancient activities. For almost 3000 years even before 1914, it was a popular siege-breaking technique. During the Great War it presented a conflict environment that perfectly favoured the skills of the military miner.

Royal Engineer tunnelling companies were specialist units of the Corps of Royal Engineers within the British Army, formed to dig attacking tunnels under enemy lines during the First World War. The Cornish Miners were one of these specialist units recruited from the tin mines of Cornwall. In February 1915, eight Tunnelling Companies were created and operational in Flanders from March 1915. By mid-1916, the British Army had around 25,000 trained tunnellers, mostly volunteers taken from mining communities.'

P.M.H.

200TH ANNIVERSARY PLEA

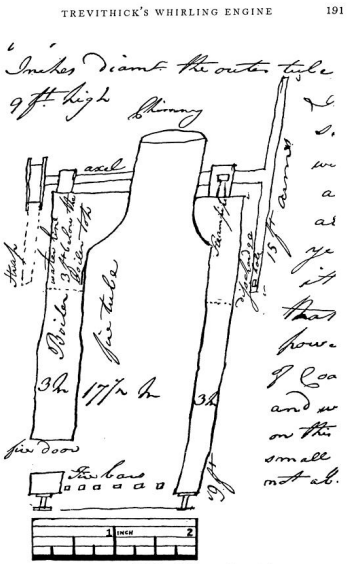
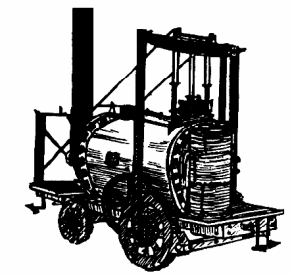

TREVITHICK'S WHIRLING ENGINE 191

Fig. 58. Trevithick's whirling engine, 1815.
From the Enys Papers.

James Rumsey asks through our website if there are any accurate drawings of Richard Trevithick's Whirling, 'Whurling', engine that he patented in 1815. Its bicentenary is this year and we have the opportunity to make something of its creation in the world of steam turbines. Research can start from page 190 of Dickinson's *Short History on the Steam Engine*. We'll be pleased to support any endeavours in this direction.

P.M.H.



SOCIETY MEETINGS

Society Programme

The West Cornwall Branch meets at King Edward Mine (KEM) at 7.30pm on the 2nd Friday of the month.

The East Cornwall Branch (ECB) meets at the Public Rooms at Liskeard and start at 7.30pm, unless stated otherwise.

Saturday 5th September (ECB).
Visit to the Herodsfoot Gunpowder works remains at Deer Park Forest Holidays. A chance to view some newly discovered Edwardian Artefacts, and view the industrial archaeology. Meet at the Cafe SX206608 at 11.00 am.

Friday 2nd October (ECB).
7:30 at the Liskerrett Centre
"Tin"- A showing of this new film by the Miracle Theatre. A joint event with the Liskerrett Centre. Contact teammanley to reserve a seat. The Liskerrett Centre is in Varley Lane Liskeard, PL14 4AP (near to the Cattle Market Car Park).

October: Date to be confirmed.
Visit to Hemerdon Mine.
An opportunity to visit the newly opened Tungsten mine on the outskirts of Plymouth.

Friday 11th December (ECB).
Christmas quiz - Back again this year by popular demand, Come along for an evening of pre-Christmas fun with a Cornish history slant. Composed and hosted by Richard Humphrey.

The West Cornwall meetings will take place at King Edward Mine (KEM) at 7.30pm on the 2nd Friday of each month except December. See website for details of speakers, etc.

Contacts

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For up-to-date news follow us at:
http://teammanley-ts.blogspot.com

Non members are welcome to all talks.

MEMBERS' BENEFITS

Trevithick Society members are entitled to free entry (on production of the membership card) to the following attractions:

- King Edward Mine
- Cornish Engines at Pool (East Pool Mine and Michell's Whim)
- Levant
- Geevor Museum

Also:

Members are invited to visit Poldark Mine free of charge on production of a valid membership card.

10% off book purchases at Tormark.

20% off purchases at KEM shop.

TREVITHICK SOCIETY OFFICERS AND OTHER REPRESENTATIVES

President: Bryan Earl

Chairman: Philip Hosken
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The Trevithick Society, a registered charity, is a recognised body of the study of industrial archaeology in Cornwall. Membership is open to all who are interested in the region's great industrial past, whether or not they live in Cornwall. The Society takes its name from one of Britain's foremost inventors and pioneers of the Industrial Revolution, Richard Trevithick, a Cornishman whose name is inseparable from the development of steam power. This newsletter is published quarterly and, together with the annual journal, is distributed free to members. Letters and contributions are always welcome and should be sent direct to the editor.

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