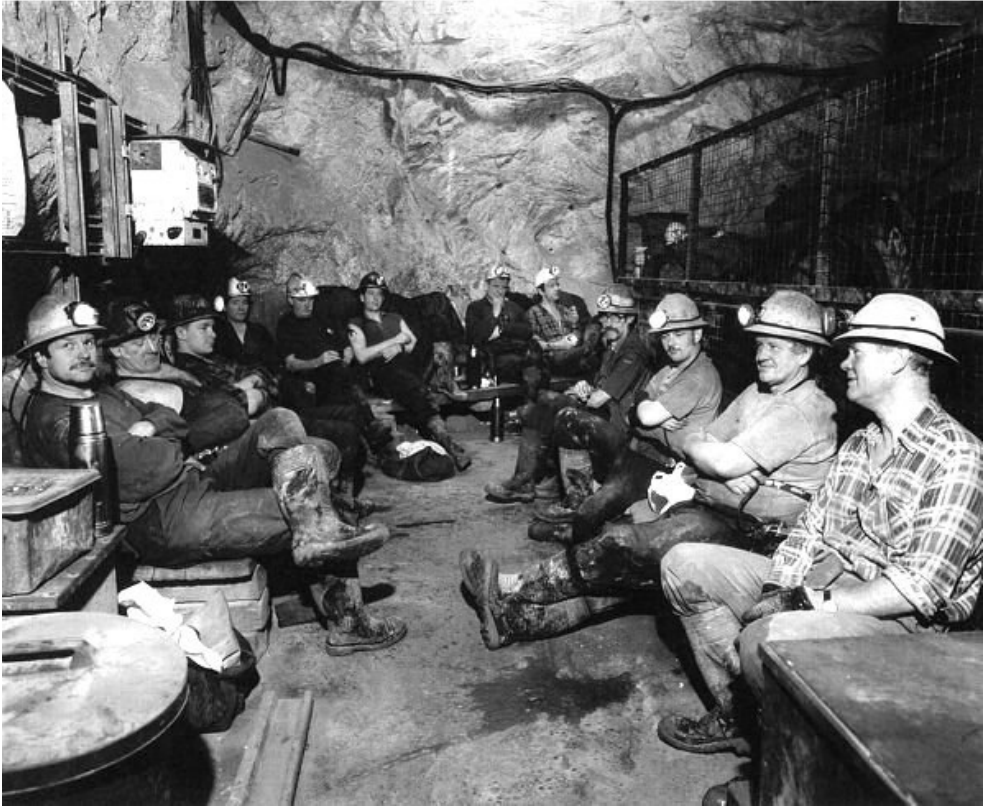


THE TREVITHICK SOCIETY



Will we see this scene again? Allen Buckley is on the far right.

CHAIRMAN'S ADDRESS

Will South Crofty ever...?

With the news that Baseresult has obtained environmental planning consent, the whole discussion about South Crofty's future has re-opened. In the six years since Baseresult Holdings Ltd bought the mine it has been unwavering in its stated intention to recommence mining. This has not been well received by the authorities at Kerrier District Council or the Camborne Pool Redruth Urban Regeneration Company (URC) who appear to have been thwarting the company's plans at every stage. Like most parties who express their opinions on this subject, we do not know the facts. We can only wonder why the authorities who are charged with the regeneration and economic recovery of the area are so against these plans to employ up to 200 workers. Cornwall's GDP is abysmally low. Mining tin is one of the few substantial ways to improve it.

Kevin Williams, the mine manager, has always said that it will take a further two years to reach the production stage. These are likely to be two difficult years. In addition to preparing the mine it is likely that he will have to face the continual attention of the environmentalists and the Health & Safety Executive.

And will the authorities stand back and let him get on with it? We don't know but they must have assumed South Crofty would not obtain the necessary planning consents. They have published their plans for the land surrounding Robinson's Shaft and capped a vital airshaft into the mine. They have re-named the area Heartlands, a name that has been done to death all over England. Heartlands has 1.2 million hits on Google. This name loses the vital distinctiveness that is so important for anything connected to Cornwall's recovery.

Kerrier District Council has recently received an award to continue the development of the former Robinsons Shaft area. It included planning control of a great part of South Crofty's land. Why are they so determined to establish what will happen across a busy road to the Tesco Extra store unless it is stop Baseresult developing as they wish? Does the South West of England Regional Development Agency really need to build thousands of houses in their own style? As we said, we don't know but the only people we can see coming to Pool to work in any quantity are likely to be miners; and they will probably come from Poland, it's happened before.

Kerrier says that mining will not affect their plans but there is talk of an attempt to acquire land by Compulsory Purchase Order. This will take about two years, the same two years within which South Crofty can re-start and employ their 200 workers. If Kerrier go ahead with a CPO they could make these workers redundant.

The irony will be that, if South Crofty re-opens the URC will inevitably claim the jobs created within their success figures. If SWERDA had heeded this writer's letter of six years ago advising them to purchase the whole area when it was on the market this would never have happened. But it has and now we think mining is natural for Cornwall. It will again provide jobs, raise Cornwall's GDP and strengthen its distinctiveness.

Many of our friends have again said they were disappointed not to find our splendid new exhibition tent at the West of England Steam Rally at Chiverton in August. We were there for three days and were sad to have missed you, too.

The W.E.S.E.S. has the opportunity and ability to run its show however it prefers, but it would be good if more thought could be given to the interests of the traders and stallholders who support it.

Philip M Hosken

ENDS

Copy date for next issue is November 15th, 2006

LETTERS TO THE EDITOR

Dear Editor,

I have just read the obituary of Justin Brooke in Newsletter 131. I question whether his interest in Cornish mining history began as late as 1965 (which is what the obituary implies). I remember him discussing Cornish mining in detail with my parents Doris and Arthur Treloar some time before my Father died in 1961 so he must already, by then, have been very knowledgeable on the subject. Perhaps someone can cast more light on when his interest began.

Peter Treloar

peter.treloar@ukgateway.net

Dear Editor,

I am concerned at the misleading entry, in the July Newsletter, regarding the Brunel Anniversary and in particular as regards Isambard's involvement in the Thames Tunnel.

The Thames Tunnel was the brainchild of Marc Brunel and was designed entirely by him years before Isambard returned to England from France, where he was completing his education. When construction began, Isambard was employed as a junior assistant to Armstrong, the Resident Engineer, until Armstrong was forced to resign through illness. His subsequent appointment as Resident Engineer was the result of Marc's intervention with the Company, and he was always under the supervision of his father.

When he was severely injured and almost drowned two years after the Tunnel had commenced, he was forced to accept that his tunnelling activities were over and he never again entered the workings, except possibly as a spectator.

To describe the Thames Tunnel as the result of 'the tenacity and sheer persistence of Isambard Brunel' is ludicrous. He was always working under his father's instructions, and was only employed on the project for the first two years of the sixteen it took to complete.

My book, *The Greater Genius*, published

by Ian Allan Ltd., in April, covers the story of the Thames Tunnel in detail, from its inception to the death of the inventor. It does not belittle the works of Isambard but puts the credit for many edifices attributed to Isambard firmly where they belong—his father.

Chapter 11 includes a lengthy section about Richard Trevithick which should interest members.

Harold Bagust

16A Abbotts Way,

Highfield, Southampton

SO17 1QT email: hbagust@tcp.co.uk

Guided walk from Botallack to Wheal Castle, Saturday November 11th. Meet at the Count House (NGR SW 367 332) at 1pm; the walk should last approximately

PROGRAMME CARD CORRECTION

Will members please note an error on your current yellow programme card.

The date for the January 2007 meeting at the Opie Building is incorrect and should read Friday, 19th January.

GUIDED WALK

two hours. Please note that this is NOT a Trevithick Society walk and that there will be a charge of £5, all proceeds going to the Penzance-Newlyn Scout Group.

The Society has purchased, at auction, a set of 22 drawings of South Crofty equipment by Nicholas Trestrail (some signed), dating from 1903. For example, a

TRESTRAIL DRAWINGS

drawing of a fend-off and an arsenic-plant scrubber tower.

GOONHILLY TO BECOME INDUSTRIAL HISTORY

BT is planning to scale down the famous Goonhilly communications site on The Lizard Peninsula and reduce the workforce from 120 to 30.

Kelvin Ball, head of radio, subsea and satellite communications for BT, said: "The view of the BT committee which considered this matter is that it is no longer commercially viable for satellite communications to continue at both Goonhilly and Madley [Herefordshire].

These recommendations have not been taken lightly. We need to reduce our running costs if we are to remain competitive in this fiercely competitive marketplace...Other activities carried out at Goonhilly, such as the sub-sea cable operations, project management and health and safety, will continue."

The first radio communication dish at Goonhilly, called Arthur and now a Grade II listed structure, was built to receive the first live television programmes from America by Telstar in 1962. It now handles 10 million telephone calls a week and data from the US and Indian Ocean area.

Although Arthur and the tourist centre will stay, the 960-tonne dish of the 1968 Antenna Two is being dismantled. This will take three months and it will be followed by the other dishes. The Lizard will lose the familiar communications dishes that have dominated its skyline for years.

Cornwall has played an essential part in world communications over the years. The first packet ship, carrying what was then known as the 'King's Post', left Falmouth for the colonies in 1688 and the service continued in the face of pirates and all weathers until 1851. It was transferred to Southampton because of its rail link to London.

Then came the international telegraph. In the beginning John Pender owned the Falmouth, Gibraltar and Malta Telegraph Company and it laid the first cable to Bombay in 1869/70. It came ashore at Porthcurno. Many more cables were to follow it and in the nineteenth century Porthcurno linked London to the world.



Guglielmo Marconi received his famous transatlantic radio message in what is now Canada from the cliff tops at Poldhu in December 1901.

Like the dishes at Goonhilly, all these ventures were at the very edge of contemporary technology and placed Cornwall in the very forefront of progress. Now Cornwall is losing what will probably be its last link to international communication, it can do this with the knowledge that it has worked hard and served the world well.

P.M.H. with thanks to the BBC

Planning authorities in Truro have approved an application by Baseresult Holdings Ltd in connection with the

SOUTH CROFTY TO RE-OPEN?

environmental conditions at South Crofty mine. Mine manager, Kevin Williams, said that they had always intended to re-open the mine and this will now take two years.

Baseresult reckon it will be viable to re-work some of the higher levels. Specialist equipment has been purchased and stored at the mine to facilitate this return to full mining operation.

South Crofty closed in 1998 and with it

KING EDWARD MINE

went the tradition of Cornish mining. Since Baseresult bought the mine in 2001 it has spent a great deal of money and fought local authorities to re-open. The Camborne Pool Redruth Urban Regeneration Company (URC) charged with creating jobs and prosperity in the area has said that tin mining was not the sort of industry a modern county needed.

County councillor Mark Kaczmarek was a former miner at South Crofty and its union convenor. He led the demonstrations to re-open the mine and chained himself to the headframe in protest at the closure. He is now a Kerrier District Councillor and has suggested that Baseresult does not have the wherewithal to recommence mining operations.

In reply, the company says its intentions are to return to full-scale mining. Its plans for housing and other developments on the surface are secondary.

The URC claims the resumption of mining will not interfere with its plans based on Cornish heritage and modern service industries for the regeneration of the Pool area. It remains to be seen whether the mine will obtain planning consent for its proposals from Kerrier District Council. There will also be interest in the numbers of new, full-time permanent jobs that are created by both parties.

P.M.H.

Can any member please help with a photo, print or good photostat, of the aerial ropeway terminal hopper at Clitters Mill, Gunnislake, 1918-20.

HELP NEEDED

Eric Edmonds

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Carnon Downs.
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The visitor season for 2006 has not been a smash hit for Cornwall in spite of the high temperatures but Kind Edward has once again increased its visitor figures. We have continued hosting committee meetings for other bodies in the survey office and one unusual group of weekend visitors was the local scout group who camped in the field. This all helps our visitor numbers and keeps the site alive. Our neighbour still continues to use the field for his ponies and donkeys. These are proving to be quite a hit with the younger element of our visitors.

Work continues on the building of the Frue vanner. David Blight has made parts and fitted shafts and bearings as part of the drive gear with Willie Uren as "apprentice". Gerald Bodilly has had a period of indifferent health but is now attending for short periods on Sunday mornings "in an advisory capacity" as he likes to express it. Good to see you back Gerald.

Until recently, to the right of the main gate was an area of scrub gorse and large stones. This has now been cleared with the help of Rod. Thompson and his tractor and is now being levelled preparatory to sowing with grass. This will make for easier maintenance, open up the view of the site from the road, and provide a more welcoming approach.

As part of the Free Events Heritage Open Days week in September King Edward was open on Saturday 9th. with all machinery in operation. Geoff Treseder of Pendeen brought along his smelting furnace and demonstrated his "Tin Smelting – Powder to Metal". This display always draws an interested crowd and Geoff has just the right touch with his commentary. There was also an art workshop "Drawing and Memory" in the survey office. Well over a hundred visitors were recorded with the shop doing a brisk trade.

K.J.T.R

SOCIETY PUBLICATIONS

You have not had to put up with much from yours truly over the past several months principally owing to the fact that the whole process of producing Society publications has been changed. Prior to now we were caught in the trap of having the printer's reproduction department produce a particular publication from such information as was provided to us. Even in this day and age, this frequently included hand written copy that had to be typed up by the repro. operator at Lord knows what cost. Over the past months dedicated publishing software has been purchased and Pete Joseph, our Curator, has compiled the various publications, as listed, and they now go to the printer in 'print ready' format thus eliminating the cost of typing up, typesetting, etc.

The principal benefit from the above is that we can reduce the number of copies printed. It does not necessarily affect the sale price but it does enable the available funds to be spread over a wider range of titles. Over the past twelve months the Society has published, excluding the Journal, seven titles. The bulk of these are reproductions recording Cornish industries that will not be seen again. As has been said on a number of occasions, it is an object of the Society to publish academic works that advance our aims and any potential material is welcome. With the new publication procedure much can be achieved that would have been difficult, if not impossible and extremely expensive, before.

The following are the new publications that will be in the shops by the early September, all of which will be available at your local bookshop and, if not, the proprietor can obtain them via Tor Mark of United Downs, St Day, Cornwall, TR16 5HY. Phone 01209 822101. Fax 01209 822035. Email <office@tormark.co.uk>. Your purchasing Society publications from your local bookshop benefits the Society by 'spreading the word'. On a number of occasions bookshops have started stocking our publications as a result of a single order.

You will notice that there are two ISBN numbers for new publications which will be the case until the end of this year, the first one being that which applies until then. After 31 DEC 2006 the thirteen figure ISBN will be the norm.

SOCIETY PUBLICATIONS

CLIMAX ILLUSTRATED. A publication issued by Climax Engineering shows their contribution during the 1939-1945 War years and after. Many local scenes and faces will be found in this book. For anyone with an interest in mining this fills another part of a picture that has gone forever. Black & white with copious illustrations in 44 pages. Soft cover £7.99 ISBN: 0-904040-66-6 OR 978-0-904040-66-1.

HOLMAN CRUSHING & DRESSING PLANT.

Illustrations of the numerous machines produced by Holman Bros. that were applicable to tin mining and processing in particular. This is a replica of a catalogue to demonstrate to the mining and processing industry that they could satisfy the bulk of their needs from one source. Black & white with detailed illustrations. 44 pages. Soft cover £7.99 ISBN: 0-904040-70-4 OR 978-0-904040-70-8

BICKFORD, SMITH & CO. LTD., 1831 - 1931.

The Society was most fortunate in obtaining a copy of this comparatively rare publication issued by Bickford Smith on the occasion of their Centenary in 1931. We were also fortunate in obtaining permission from ICI Ltd to publish this replica. It relates the history of Bickford Smith from its very first days. Issued as a unique, limited, hard covered edition of just four hundred copies. There will not be a further hard covered print of this volume. Black & white with coloured chapter headings and a hard cover in the original 'blue' with replica adhesive title label. 48 pages including 16 of photographs. Each copy individually

numbered. £14.99. ISBN: 0-904040-69-0
OR 978-0-904040-69-2

CORNISH EXPLOSIVES. 2ND EDITION. Having been absent from the bookshelves for several years Bryan Earl has produced a fully revised, updated and extended edition of his authoritative work on the history of the Cornish Explosives Industry. Included in this edition are many photographs that have not been previously published, some in colour. For all with an interest in hard rock mining and the history of Cornish Mining this is an essential publication. 393 pages; hard cover with coloured dust jacket. £35.00. ISBN: 0-904040-68-2 OR 978-0-904040-68-5

In addition to the above the following are Society publications available from any bookshop.

WILLIAMS PERRAN FOUNDRY CATALOGUE. Sixth impression. This volume has been out of print for some time with a continuing steady demand. Available from your local bookshop at £12.99. ISBN 0 904040 02 X

THE HARVEY CATALOGUE. For those of you who missed the hard cover limited edition of this volume this soft cover version contains the same historical material. £12.99. ISBN 0 904040 60 7.

HOLMAN – CORNISH ENGINEERING 1801 – 2001. Clive Carter's brilliant history of the Holman Company. This book is full of fascinating facts and anecdotes, and, considering the mass of historical detail, is extremely readable. This must be one of the value-for-money books currently in the shops. Buy it, you will not be disappointed. £9.99. ISBN: 0-904040-59-3

OUR WORK DURING THE GREAT WAR – HOLMAN BROS. An illustrated record of the valuable effort by Holman's in the Great War. It can be obtained from your local bookshop. Priced at £7.99. ISBN: 0-904040-64-X

VISIT TO HOLMAN'S BY EDWARD, PRINCE OF WALES ON THE 20TH OF MAY, 1926. This is a representation of a Souvenir volume issued on a limited basis by Holman to specifically record the event. Many members of staff are in the photographs. With the ISBN 0-904040-65-8 this is also available from your local bookshop at £7.99

CORNISH ENGINES & THE MEN WHO HANDLED THEM. A reprint of the popular and informative booklet recording the talk given to the Royal Institution of Cornwall by Jack Trounson in December 1966. The narrative is the same with a number of photographs now included. £4.99. ISBN 0-904040-63-0

MARCONI AT THE LIZARD. Courtney Rowe's brilliantly researched history of this particular phase of Marconi's work allied to the extraordinary history of communications from Housel Bay on The Lizard. It is a record of the first transmission of a radio signal "over the horizon" some eleven months before Marconi's epic Trans-Atlantic feat. Both for the radio enthusiast and industrial historian the interested visitor to the West Country this book has much to offer. £7.99. ISBN: 0-904040-49-6

Also from your local bookshop are Society publications as under.

<i>Cornish Pumping Engines</i>	£2.99
<i>Cunnack Manuscript</i>	£6.99
<i>Drawings of the Levant Whim</i>	£6.99
<i>Levant a Champion Cornish Mine</i>	£6.99
<i>Michell - family Cornish Engineers</i>	£4.99
<i>Mine Accidents in the St Just District</i>	£2.99
<i>Mr Lean & the Engine Reporters</i>	£4.99

Vernon Baldry

Publications Secretary

In conjunction with the Society Exhibition in November of this year, Bryan Earl will be lecturing on the subject of "Cornish Explosives". This occasion will also give those who attend, an opportunity to view Bryan's Second Edition of this important work which is described elsewhere in this newsletter. The lecture is to be held at the

CORNISH EXPLOSIVES LECTURE

Cornwall Studies Library, Alma Place, Redruth on Tuesday the 7th of November, 2006 at 7 pm. Other recent Society publications will also be displayed.

Vernon Baldry
Publications Secretary

Captain Josiah Thomas signed a contract for the trial of three Doering rock-borers in 1869, a fourth being added in the following year.¹ The trial showed that these machines were able to increase productivity and to decrease labour costs, but there were problems with wear and tear due to the hard rock. Many Cornish adventurers

THE CHAMPION AIR COMPRESSOR AT DOLCOATH MINE

were not convinced and still preferred hand-boring.²

Despite a slump, the development of borers and drills carried on. In 1875 Dolcoath decided on more trials, driving a 315 fm level, despite previous failures. They used a Barrow drill, made under licence by Michael Loam at Saltash.³ The first drill was a failure but the improved replacement proved 2½ times faster than hand labour.

Around this time there were nearly a dozen makes of machine available, mostly used by contractors. Holman Bros. ran a boring company and started their own brand of rock drills in 1880, soon to be exported all over the world.⁴

In 1886 Dolcoath contracted with R.H.Harris to sink Eastern Shaft from 145 fm down to the 254 fm level, using his own Champion machines and compressor.⁵ They also decided to try stoping with their own men and so ordered a new Champion compressor and boiler.⁶

The Champion rock-borer, designed by Dr G.S. Ullathorne, had been advertised regularly since about 1875 by Ullathorne & Co., but in 1879 the same advertisement

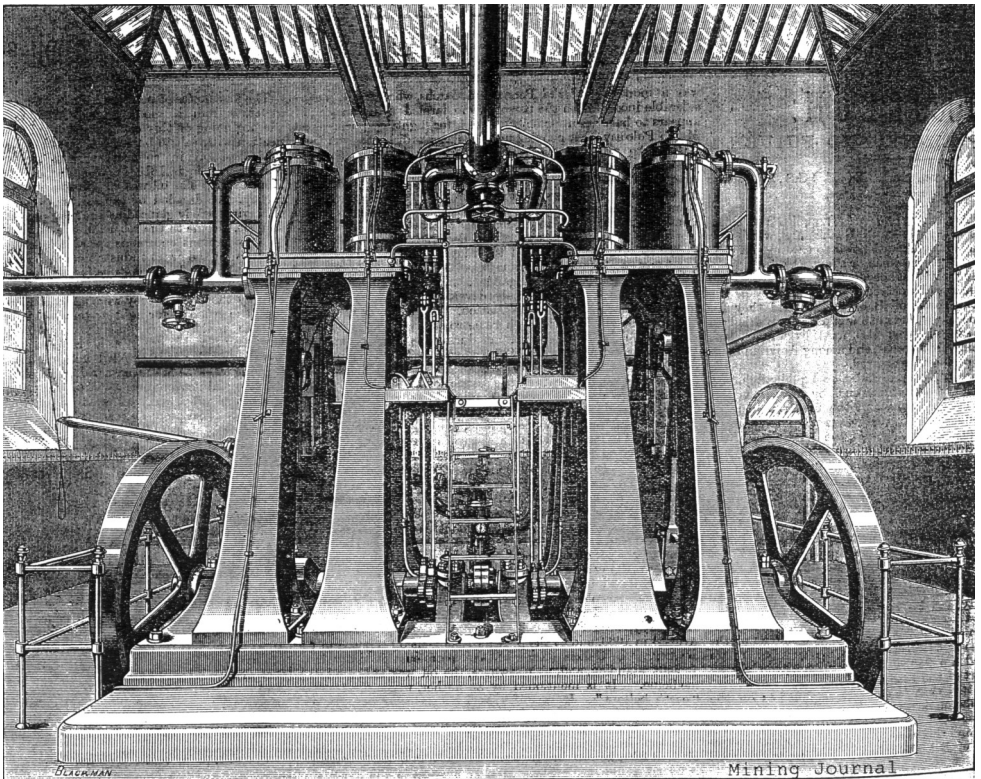
was in the name of R.H. Harris and a picture of the small Champion vertical air compressor was added around 1882. By 1887 the name had been changed to Champion Rock-borer & Air Compressor Co. of the same address, with Dr Ullathorne as manager.⁷

The small Champion compressor had the steam and air cylinders on a casting at the top of a single sloping cast-iron pillar, on the underside of which were two cross-head guides.⁸ On the opposite side of the pillar were two rods, about 2" diameter as supports, the whole mounted on a cast-iron base over the crankshaft, with a flywheel at each end.

The compressor and boiler were delivered, erected in a new building (SW65994039, to the south of the Counthouse), and running by May 1887.⁹ A photograph, in which the maker's nameplate reads R.H. Harris, was taken soon after erection, but it seems that it was not published at that time, nor were the technical details.¹⁰ However, in 1891 two articles appeared.¹¹ These were identical and each had the same drawing. This is clearly a neat and exact tracing of the photograph, showing not only the major components but also the minor details—bearing caps; linkages; all small pipework; foundation bolts; guard rails, ladder and platform; walls, windows and ceiling—every detail except the attendant beyond the ladder.

The new compressor combined two large versions of that shown in advertisements. The steam and air cylinders were on a casting on which the steam end had a guide for the two steam valve rods linked to the eccentrics. This casting was supported on four sloping cast-iron pillars, each pair forming an A-frame below the centre line of the cylinder, and each with a cross-head guide on the inner side.

The double-acting steam cylinder was 13"x 28" stroke, steam-jacketed and with expansion valves. The d/a air cylinder was 16½" x 24" stroke, with four inlet and two outlet steel lift valves working vertically in phosphor-bronze seatings, and which could be removed without disturbing the cylinder cover joint. The air cylinder and the outlet valves were water-cooled to reduce the



power needed to force the air into the receiver. As the strains on a compressor are greater than on an ordinary engine the bearings and surfaces are increased in length and strength beyond the usual for a plain steam engine.

The A-frames of the first unit were mounted astride one end of the base-plate, with the steam cylinder on the inside, and over the crankshaft, which had a 7' 6" diameter 32 cwt flywheel on the outer end and a coupling flange on the inner end. The second unit, of the same dimensions, was mounted on the other end, also with the steam cylinder on the inside. The coupling flanges, between the two inner bearings, were bolted together with the steam cranks at 90°. The base-plate was 15' 1" x 7' 4" and the height 12' 8", with a ladder to the platform below the steam valve.

Boiler pressure was about 75 psi, the steam being used expansively and passing into an ejector condenser. Running at 50 rpm this compressor, said to be the biggest yet in Cornwall, was rated to give 117 cfm

at 60 psi at atmospheric temperature, as confirmed in practice, and delivered into a 30' x 6" wrought iron receiver from which pipes went underground. The steam and air valves were arranged such that one engine only could be used after removing the coupling bolts.

By 1900 more rock drills were in use, mostly in Harriet area. The directors decided to centralise air supply, hitherto from five compressors between Harriet's and Valley Shafts, including the Champion. They ordered a large horizontal compressor from Holman Bros. and housed it in Dolcoath Avenue (SW66143992). It was in service by December 1901 working some 30 drills and other appliances. The exhausted air improved the ventilation and coal consumption on the mine was reduced by some 100 tons per month.¹² This compressor was in use until the mine closed.

In 1902 the Champion advertisement showed a vertical compressor with a different layout to that of the original and

the words "Sole proprietors E.P. & H.P. Vacher" of the same address.¹³ Another change was seen in 1908 when Champion & Vulcan drills were advertised by H.P. Vacher of Vulcan Works, Winchester.¹⁴

Eric Edmonds

References

1. (a) RCG 15.4.69 & 9.9.70. (b) *Cornish Engineering 1801-2001*, Clive Carter, p.15. (c) *Dolcoath—Queen of Cornish Mines*. T.R.Harris. p. 55 & p. 60.
2. *History of Tin Mining & Smelting*. D.B. Barton, p. 173. See General Index under Compressors and Rock Drills.
3. Ref. 2 p. 192. Ref. 1(b) p. 15. Ref. 1(c) p. 60.
4. Ref. 2 p. 192. RCG 13.7.83.
5. MJ 1886 26 June p. 731. MJ 1875 14 Aug. p. 882, Champion Borer.
6. Ref. 2 p. 192. MJ 1886 18 Sept. p. 1077.
7. Champion products—regular advertisements in MJ 1875 to after 1886.
8. MJ 1888 9 June p. 66, typical advert.
9. MJ 1886 11 Dec. p. 1437 & 1887 28 May p. 656, cost details.
10. *Mining in Cornwall*. L.J. Bullen (Landmark) p. 23, photo.
11. Engineer 1891 19 June p. 481 and MJ 1891 24 Oct. p. 1198 with same picture.
12. Ref 1(c) p. 86 & 87—500 HP cross-compound, steam cylinders 20" & 38" x 5' stroke, air cylinders 20½" & 32". Meyer expansion gear—Pumping Machinery by Henry Davey, 1900, chapter X p. 186 & 192. Ref 1(b) p. 30. MJ 1902 6 Sept p. 1210. *Mining in Cornwall* L.J. Bullen Vol. 1 p. 43.
13. MJ 1902 9 Aug. p. 1084.
14. MJ 1908 11 Jan. p. 58.

The Society has been loaned a beautifully carved bust of Richard Trevithick by David Orchard of Southampton. The piece stands ten and a half inches high with Cap'n Dick carved in beech and set in a gear wheel

carved in walnut meshed in a toothed base. The reverse has an illustration of a Trevithick Model held by the Science Museum. The legend "Richard Trevithick 1771-1833" is carved on a separate piece in beech. David, whose hobby is woodcarving, was apprenticed at Holman Bros, Camborne, moved to Canada, then came back and settled in Southampton where he was employed at the University. The carving will go on display at

TREVITHICK CARVING

Trevithick's Cottage, Penponds.



CAMBORNE ROAD LOCOMOTIVE

The 1801 Trevithick replica passed the annual boiler inspection in July and we are pleased to report that no maintenance work was required. She is starting to look her age and certainly many people are fooled into believing that they are seeing the original engine, until that is, they read the notice boards that tell of her recent construction. The engine is now in store for the winter where it will undergo an extensive refurbishment.

Fred Dibnah is currently getting a lot of coverage on the television and therefore numerous members of the public are mentioning his name in connection with the engine. In view of this, we hope for next year, to have an additional notice board displaying photographs of Fred and his visit to Trevithick Day when he steered the 'Puffing Devil'.

In the last Newsletter, it should have been mentioned that the 'Puffing Devil' was not a static exhibit at the Boconnoc Rally. Helpers included John Sawle, Sean Oliver, Mark Rivron together with the engines custodian John Woodward. That rally is one of the few with a road-surfaced area suitable for driving the engine. Consequently, it was great for the crew and visitors alike to see the engine driving along that section of road.

At the West of England Steam Rally at Chiverton, in August, the engine was part of the long, and impressive, line of traction engines that flanked the western end of the site. It was kept in steam as a static exhibit for the three days of the show by the helpers mentioned above, with the addition of Colin French, Arthur Young and Ben Maddocks. A new set of sheep fencing has been purchased to keep the crowds a few feet away from the moving parts. This had the advantage of giving everyone sufficient room to observe and photograph the locomotive.

John Woodward

The Society Management Council is sadly depleted but the workload still continues.

SOCIETY ASSISTANCE

We desperately require a minutes secretary for the management meetings. These meetings are held every two months on a Saturday morning at 10am. at King Edward Mine and are easy going affairs with plenty of light relief. You do not necessarily have to be on the Council to help in this matter but assistance is urgently needed. Similarly we require assistance with the programme and seek members' help to set up a small sub-committee for the 2007-2008 session. Once again membership of the Council is not necessary. Neither are we looking for technical expertise just common sense. If we get no help in this matter the lecture programme is likely to be cancelled. This has already happened to the East Cornwall Branch. It is your Society. It is up to you. For answers to questions and offers of assistance please ring the chatline 01209 716811 NOW.

In the last Newsletter we asked for a coppersmith to repair the Redruth Brewery lamp we have acquired. Member John Soper from Plymouth has volunteered to try

PLEASE HELP
YOUR SOCIETY CONTINUE
WITH A LECTURE
PROGRAMME

Join the sub-committee drawing
up the programme. We need
fresh ideas.

"LIGHT JOB"

his hand. Like a number of members who live some distance away from the action John feels frustrated at not being able to help more, but a job like this can be done at home in your own time.

Thanks John.

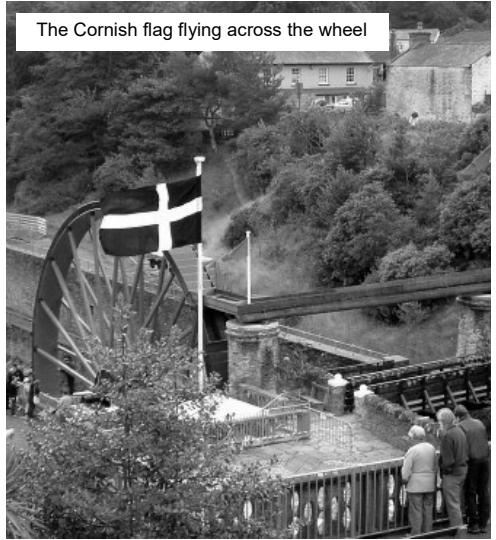
GAWNS WHEEL SAGA ENDS

On August 20th, members of the Trevithick Society attended a ceremony at Laxey, on the Isle of Man, where one of the Society's artefacts, a 50 foot 6 inch diameter water wheel, was handed over to the Laxey and Lonan Heritage Trust. The wheel had been the subject of a three-year restoration project by members of the Laxey Mines Research Group. The wheel has been restored to an extremely high standard by its dedicated team and the Trevithick Society is proud to have been associated with the project.

At the starting ceremony the wheel was officially named 'Lady Evelyn', after Evelyn Jones, a hard-working member of the project team. The wheel was handed over by Pete Joseph, the curator; other members of the delegation were Bryan Earl (President), Kingsley Rickard (vice-Chairman), Sue Maunder (Membership Secretary) and member Kevin Baker and his wife Chris. The wheel was accepted by the Hon. Steve Rodan MHK, Minister for Health and Chairman of the Laxey and Lonan Trust; the Master of Ceremonies was Laxey Village Commissioner Richard Henthorn while the opening was preformed by Antony Hamilton, Chief Executive of the Department of Local Government and Environment. Other invited guests were the three great-grandchildren of Gilbert Howell, who built the wheel: Anna Gappa, Jane Howell and David Keating.

The ceremony was overlooked by the flags of Cornwall, the Isle of Man and

The Cornish flag flying across the wheel



Wales, marking the wheel's travels through a small part of the Celtic Arc. There is now a permanent plaque, of black limestone, near the wheel which states: *Presented by the Trevithick Society as a gift from the people of Cornwall to the people of the Isle of Man.*

This was a major event for the area; it was the largest event to be held at Laxey for a number of years and the attendance was estimated by the local police to be in excess of 1,000 people.

The wheel was one of a pair made at the Hawarden Iron Works in Flintshire in 1865, built for use at the Snaefell Mine on the Isle of Man and used there until 1910. In 1920 it was acquired for pumping slurry from the Greenbarrow clay pit at Temple. To

provide water for the wheel the nearby Durfold China Clay Works was partly flooded as a reservoir. The wheel had been transported to Wadebridge in parts by rail and hauled by a traction engine to its new site. Initially the slurry was pumped using 1500m of flat-rods which ran through a tunnel beneath the A30. While in use the wheel was the largest then in use in Cornwall, but not the largest ever used in Cornwall, as has frequently been reported; this honour goes to a 65-foot diameter



wheel working near St Just-in-Penwith in the 1840s.

The unusual set-up at Gawns had a peculiar problem: the flat-rods were lubricated by grease which was popular with cows and constantly being licked off; consequently a man was employed to walk the line of flat-rods every day to replace the lost grease. The course of the rods can still be traced across Trehudreth Downs.

This system eventually proved too inefficient because so much of the power was lost through friction, and the flat-rods were subsequently replaced by a generator which was also run by the wheel. The generator fed power via a copper wire, mounted on the flat-rods which were pushed into the ground. It is rumoured that the voltage drop along the line was similar in magnitude to the loss of mechanical energy through friction; this became total one day when the entire cable was stolen. The wheel was disused by 1934 although the Temple Clay Works lasted until 1942 when it was closed by the Board of Trade. The Gawns Wheel, as it was called by then, was eventually disassembled in 1971 by its owners (English China Clays International, now Imerys) on behalf of the Trevithick Society.

For a while the pieces of the wheel were stored in a disused china clay dry but in 1975 it was loaned to the Llywernog Lead Mining Museum near Aberystwyth. The flat



-rods had previously been donated to a park in Lerryn (near Fowey) where they were used as railings. Attempts by the museum to re-erect the wheel came to nothing and the Trevithick Society decided to ask for the wheel to be returned to Cornwall. Negotiations were underway in May 2003 when the Society was contacted by Peter Geddes of the Laxey Mines Research Group who expressed an interest in returning the wheel to the Isle of Man and erecting it on the old lead washing floors. This enquiry was favourably considered and on 20th September 2003 groups from Cornwall and Laxey met at the Mid Wales Mining Museum to remove the wheel, which arrived on the Isle of Man the following day.

The Laxey Mines Research Group managed to attract a great deal of support from individuals, companies and, importantly, the local government. The story of the project to restore the wheel has yet to be put in print however it is known to have cost £97,000 and taken 7,000 man-hours. The wheel is presently the largest wheel in use in the country. A bigger wheel, the 72 foot 6 inch Lady Isabella, is about a kilometre away but at the present time is not in working order.

Pete Joseph



The restoration team surrounding Evelyn Jones, after whom the wheel was named.

REDRUTH BREWERY EXHIBITION

The Society will be staging an exhibition of Redruth Brewery artefacts and history at the Cornwall Centre, Alma Place, Redruth. This will open to the public from Monday, November 6th. until Saturday November 18th. 2006. Cataloguing the considerable number of items saved from the site through the kindness of Messrs BTB, the demolition company, is now virtually complete and, it was now felt an appropriate time to mount a display and, of course, advertise the Society and its work. For security reasons the display will have to be manned each day so volunteers would be appreciated. The down side to this is that the out of date beer mentioned in previous reports has now run out so volunteers will be responsible for their own refreshments! We also intend to have a sales point where "Redruth Breweryana" will be available. Setting up the displays will be done on Friday, 3rd. November and it will be dismantled on Monday, 20th.

The exhibition hall will also be the venue for the re-launch of Bryan Earl's book on the Cornish explosive industry coupled with a lecture on Tuesday, 7th. November details of which are elsewhere in this Newsletter.

K.J.T.R

The new sales tent and the Puffing Devil were at the Liskeard Steam-Vintage Club

OUTSIDE EVENTS

rally at the delightful Boconnoc Estate in July where business was good and interest in the Society and its work were well appreciated judging by the number of queries posed by the public. Society representatives at the tent were John Badger, Barbara Tripp and Kingsley Rickard

The sales tent then visited Godolphin House on August 12th. and 13th. Godolphin House were staging "One And All", a celebration of all things Cornish featuring, amongst others, wrestling, dancing, the Cornish language, pasty making, tin smelting and hedging. We went

along by invitation and as we would be facing a somewhat different audience than usual it was felt it could be an interesting new experience. It turned out to be a very successful visit with the tent doing extremely good business. The volunteers manning the event were John Badger, Colin French, Phil. Hosken and Kingsley Rickard.

The final outdoor event of the season was the West of England Steam Engine Rally. On the Thursday, when setting up, we suffered mud and slippery conditions due to the rain, however, this dried and during the public days the going was firm. The sales tent required the full weight of the volunteers hanging on to it on the Saturday as the brisk wind threatened to make the whole affair airborne. This was in spite of the retailers, Mastertent, assuring us that the weights supplied with it (30Kg. on each corner) would take anything the Cornish weather could throw at it. Little did they know, but then, they are in Birmingham! The Puffing Devil was stationed in the steam lines where it could receive full attention whilst the sales tent was in the commercial section. Sadly the layout in this area was not conducive to trade and we received few visitors and did little business. This seems to be the norm at this rally and thoughts will have to be given to this Society's future attendance. A disappointing end to a good summer. John Badger, Vernon Baldry, Phil. Hosken, Ann and Bill Powell and George Wilson were representing the Society at the tent.

During the season the Puffing Devil has been attended by Colin French, Ben Maddocks, Sean Oliver, Mark Rivron, John Sawle, John Woodward and Arthur Young.

The Society wishes to thank all volunteers who gave of their time during the 2006 outdoor season. Volunteers with a sense of adventure are always required. Why not come along – it's quite interesting. Ring the chatline, 01209 716811, and put something back into your Society.

K.J.T.R.

Mining in Cornwall, Camborne to Redruth.
L.J. Bullen. Landmark Collectors Library. 125 pages, softback. £9.99. ISBN 1 84306 212 7.

BOOK REVIEW

This is the latest in a long line of *Mining in Cornwall* volumes that was originally started by Jack Trounson (c. 1980) and resumed much more recently by Joff Bullen. The overall format has changed little which reflects the pleasing simplicity of design that ensured the success of the original two volumes. However, the publisher has changed twice, which essentially saw modifications in cover design and to the dimensions of the book. Indeed, this volume has involved the change of publisher from Tempus Publishing Limited to Landmark, resulting in a slight increase in size and a dramatic improvement in the quality of photographic reproduction.

This volume is split into three chapters, however, it is not at all obvious why. Initially I thought it was to keep Camborne and Redruth apart, except that photographs of Holman Bros. Ltd. follow those of Wheal Spannon. Chapter one consists of almost entirely Dolcoath Mine and includes a superb mixture of photographs, ranging from the 1890s until the early 1920s, soon after it closed. These include panoramic shots of various parts of the sett, surface buildings, mineral processing floors, underground workings and mining machinery, including the Champion Compressor (see page 8 of this Newsletter) and one, shot in the Holman Museum, of the Williams Shaft traversing winding engine model (now at King Edward Mine awaiting restoration).

Chapter two deals with New Dolcoath Mine and shows the construction of the site through a series of photographs taken in 1923 and 1924. These depict shaft sinking; building, headgear and stack construction and the equipping of the site with Lancashire boilers, etc.

Chapter three includes a selection of mines from Cooks Kitchen eastwards to Pednandrea. Of these Tincroft is given the fullest treatment, including an informative group showing the scrapping of Harvey's 70-inch pumping engine during WWII.

The Camborne Redruth area is undoubtedly the mining district best known

to the author and this is both expressed in the detail of annotation of the photographs and in the selection chosen. Most have not been published before, which is pleasing, given the finite number of historic photographs available.

Unlike previous volumes, this offering lacks a map showing the location of the mines dealt with. This would have been beneficial as would a short introductory paragraph about each of the mines. With the increasing interest in Cornwall's mining and industrial past generated by World Heritage Status, I suspect that the majority of readers of this book will have scant knowledge of the mines in question, and so more background information would have been welcome.

In studying the photographs, the extent and remarkable density of surface mining buildings, and related infrastructure, that once constituted the Camborne Redruth mining district becomes apparent. I cannot help thinking that what Camborne Redruth needs is a scale model of those surface workings, so that visitors and locals alike can appreciate the magnitude of what once existed and why World Heritage Status has been conferred. Certainly a greater understanding of past achievements is needed to counteract the loss of self-determination caused by the last century of industrial decline. How invaluable these photographs would be in such a quest.

CNF

PLEASE NOTE

The 2006 Journal will be sent out
with the December Newsletter

TREVITHICK SOCIETY EVENTS AND CONTACTS

Oct. 20th - C.C.

The St. Just Objective One Project.

By Adam Sharpe.

Nov. 17th - C.C.

The Cornish Milestones.

By Marilyn & Ian Thompson.

Jan. 19th - C.C.

The Redruth Brewery Project.

By Peter Joseph.

*Meetings are held in the Lecture Theatre,
Opie Building, Cornwall College at 7pm.*

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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.

The views expressed in this Newsletter are those of the authors and not necessarily those of the Trevithick Society.

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