

The axle for the Gawns wheel is carefully lowered into position on the prepared concrete base at Laxey on the Isle of Man.

CHAIRMAN'S ADDRESS

It is no secret that this Society is accumulating an increasing stockpile of artefacts from Cornwall's industrial past. From the more easily kept coins and medallions to a beam engine and winding gear, the collection includes a tremendous variety of items that were the links between the developing world and Cornwall's engineering and mining skills.

In virtually every case the particular item is unique. Whether it is a book, a picture, the painstakingly made model of a long since scrapped mine engine or the product of one of Cornwall's fine engineering companies, it is important that it should be preserved and, where necessary, renovated to reveal its importance to the public.

At the moment there are literally tonnes of such materials stored, some in the open, at King Edward Mine and many of the remainder are in the homes of members. A meticulously prepared, illustrated register of this collection is kept by the Society's curator.

There is no place where this collection and the 1801 Trevithick replica loco can be properly stored, renovated and displayed to researchers and the interested public. Old workshops and barns are being demolished throughout the country to provide more residential accommodation. Numerous preservation societies like ours, some with access to land and all with voluntary skills, are left with simply no place to go.

Societies can make use of any well-founded building whether it is part of an existing period establishment or a factory unit on an industrial estate, each will become the home for quality work from a group of devoted enthusiasts.

As Chairman of this respected Society, I intend to write to the Heritage Lottery Fund and seek its assistance. This would involve a change of attitude on behalf of the HLF to provide suitable workshop and storage accommodation.

It has been the recent policy of the HLF to shy away from the renovation of particular buildings or artefacts towards projects that involve communities and the wider participation of the public in the country's heritage. By providing accommodation for the most needy preservation bodies the HLF would achieve substantial returns on its investments.

These would be achieved by way of community participation and the preservation of a wide range of the country's heritage that is presently deteriorating for want of accommodation and attention. The buildings would have the added element of activity and similar establishments have been shown to provide for their upkeep in a way that is not usually possible with museums.

We know that many other bodies, in a similar plight to this Society, read this newsletter and we would ask them to join us in a general approach to the HLF. We believe that the situation can be summed up in the well-known adage:

*Give a man a fish and he will feed his family for a day,
Give a man the means to catch fish and he will feed his family for a lifetime.*

Thank you

Philip M. Hosken



Copy date for next issue is July 12th, 2005

LETTERS TO THE EDITOR

Russ Webber kindly forwarded this letter:

Dear Russell,

I read with great interest your article in the Journal about the Harvey wastrel cylinder (T.S. Journal No. 31, 2004, p. 66-86). For many years my main interest has been the Haarlemmermeer drainage, and its three steam engines. I was fascinated by the many details you provide about moulding and casting techniques. Pity, that no further details can be found about how Harvey tackled this gigantic job, and precisely why and how it went wrong (apart from the late-tapping furnace). It is at least something that we have the two photos. I have the advantage of intimate first-hand knowledge of the surviving Cruquius engine, and of having access to some of the contract drawings of the engines.

I have a few comments about the drainage history and the cylinder. The Haarlemmermeer was not a tract of flooded land. It was a genuine lake, about 15ft deep, the result of the merging of several smaller lakes, which were essentially pits left after peat extraction. Many such lakes, up to 20ft deep, remain in Holland and the west of the province of Utrecht. The soil of their shores is often soft and weak peat, and apart from the continuing cutting of peat, the waves would nibble at these shores—or, during storms, devour great chunks of them. When, during the 18th century, the Haarlemmermeer had grown into a vast and dangerous inland sea, the best that could be done was to strengthen its east shore with pileworks etc. From the 17th century many schemes had been drawn up for partial or complete drainage (not primarily to gain land, but to remove the dangers). None went further than paper due to conflicts amongst the authorities and groups involved decision making, and the cost. In the 19th century we had become a unitary state, and public money could be used for the public interest. The agricultural value of the reclaimed soil helped defray the cost.

The dual flange shown in both

photographs, is the bottom one. The thirteen lugs have (presumably cast) holes for 1.5" holding-down bolts with nuts at their top ends and cotters at the other end, about 15' lower down in the brick foundation. Interposed between the cylinder and the loading slab is an intricate bottom casting with many stiffening ribs and two steam conduits cast in (fresh steam in and equilibrium steam out). That is why this cylinder end has no nozzles. The holding-down bolts are spaced too far apart to ensure a tight connection, the smaller holes (also cast in, but probably bored for better accuracy) would take the extra bolts to improve that. The second flange carries the sectionalized steam jacket. The "flange" we see at the far end is the top wall for the steam jacket. It needs no holes. It goes around the two nozzles at the top end of the cylinder, of which one is visible in each photo—incidentally showing that the position of the cylinder in both photos is quite different—as is, obviously, the location. The actual top flange is slightly smaller and completely invisible in the photos. The top cover is fitted to it with many short bolts.

I have long thought that the cylinder was bored on the giant faceplate lathe, but have always felt a bit uneasy about this. The overhang seemed excessive and hardly manageable. Jack Trounson was also convinced that the faceplate was used, and he once told me that the cause for the wastrel was probably a machining error. In fitting the casting to the lathe it would, he thought, have been inadvertently distorted, and when it was taken off after machining, this would have caused a warped bore. Years later I visited the CRO and found a note that in 1842 (almost two years after the visit of the Dutch committee), Harvey took delivery of a 150" boring frame. This is a device consisting mainly of a hefty vertical spindle which carries an arm with a cutting tool at its end. There are provisions for vertical and radial feed of the arm-cum-toolbit. The spindle is installed inside the standing cylinder. The spindle is driven by a steam engine. A smaller version for re-boring in situ is illustrated on p. 9 of the Harvey 1884 catalogue. I think it is beyond reasonable doubt that the newly-acquired

TOLGUS

150" frame was used for the Haarlem engines. It seems possible, that Copperhouse also used this frame for the Lynden cylinder. The giant faceplate would be used for the top cover, the bottom casting and the piston.

An additional riddle is the hole visible at the top in the pony trap photo. One is tempted to think that this had to do with the mis-casting, but it seems very large for that. I was told once (I don't remember by whom) that it was the result of a clumsy attempt to break up the cylinder with explosives. Surely the Cornish would know better than to botch a straightforward blasting job like that. I just don't know what to make of it. Another uncorroborated (but not impossible) story is that the wastrel was for a time used in the foundry as a lining for a casting pit. To add speculation to speculation: could the hole then have resulted from a stream of molten iron hitting the pit liner?

Jan Verbruggen,
Kruidbergweg 109,
2071 RC SANTPOORT,
Netherlands.

Dear Editor,

I wish to make the following observation about Damian Nance's article in the last Newsletter.

The transposed views of Fig 5 and 4 per the Vauclose engine sets me to thinking in that the West Point engine appears to lack a conventional condenser and, through the editor, are there additional drawings from Damian Nance and his colleagues?

Peter Stokes
peterstokes@bushinternet.com

Tolgus Mine, Redruth

This property is on the East side of East Pool and Agar, and had been worked extensively for many years at shallow levels for copper, but as the tin zone was never reached it was abandoned in 1871.

Tolgus Mines Ltd

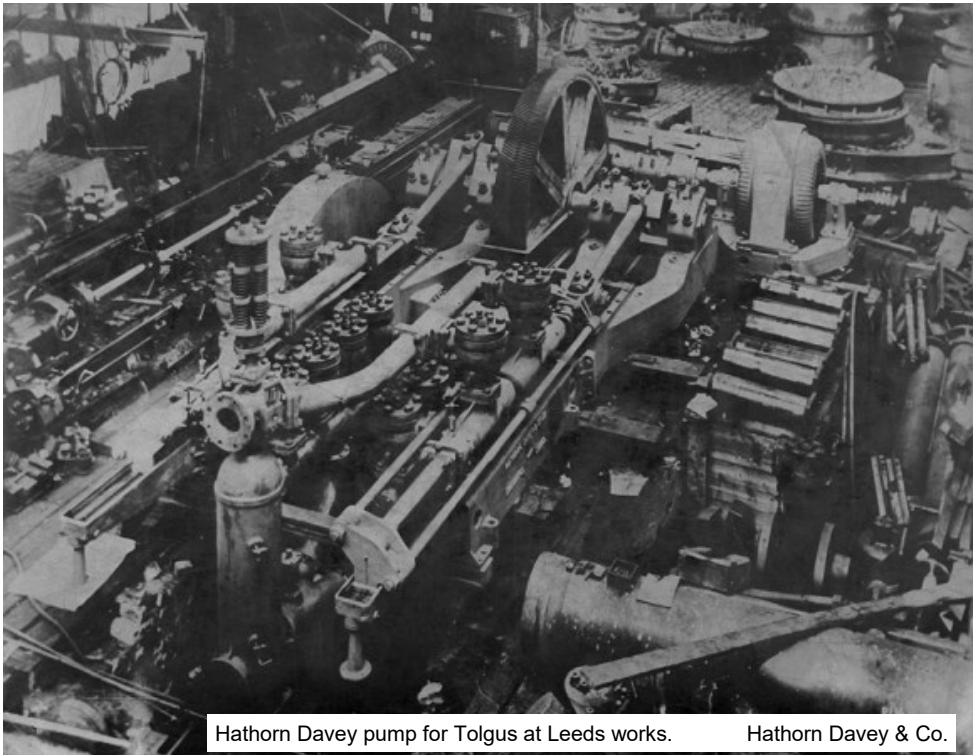
Messrs Bewick Moreing and Co, the Managers of East Pool and Agar Ltd formed this company in 1919 to acquire the property and to develop the four principal lodes of East Pool known to traverse Tolgus. They planned to drive a tunnel, 10' x 8' and 2200' long, from 225 fm level in East Pool and Agar (starting at SW 67674175). ¹

The collapse of Engine Shaft, which was the main winding shaft, in May 1921, put an end to this project as the pumps were lost and the mine flooded. They had driven about 1000', to a point about 100' NE of the junction of Chili and Chariot Roads (SW 67904190).

Tolgus Shaft

On 2nd May 1923 a start was made on sinking a new shaft (SW 68604231), the dimensions being 17' x 8', the same as at Taylor's Shaft, East Pool. This was described as a unique occasion, being the first time in over 100 years that a new shaft had been started on new ground in the district (SW 68604231 - OS 6128). ²

A supply of electricity was provided by the Cornwall Electric Power Company. A standard substation was erected (SW 68574230) with a bank of 125 kVA 10kV 440v transformers and OCB fed by a 10kV line. This was from the white side of the line to Tolskithy, as the mine had declined to pay for the alternative supply from the Black line. This supply was available in December 1923, the Supply Agreement being finally signed on 23rd December 1924 for 350 kW, minimum payment 80 kW, at 440v. ³ A bank of 150 kVA 10/3kV transformers was soon added.



Hathorn Davey pump for Tolgus at Leeds works.

Hathorn Davey & Co.

Air was provided by two Holman high-speed compressors, but these were soon replaced with an Alley and MacLellan 2-stage compressor of about 2000 cfm output.

By January 1924 they were down to 580', using a temporary winder, and had completed the first Pump Station, with two Hathorn Davey 3-throw ram pumps with 60 and 100 HP 440v motors and single gearing, each 500 gpm to 500'.⁴

On 2nd March 1924 severe snow storm interrupted the supply at 7.45pm. As there were no workings to absorb the inflow of water it immediately rose when the pumps stopped. Power was restored at 3am on the following morning, but unfortunately by that time, the water had risen up over the pumps and put the two motors out of action. It rose to 320' above the Pump Station, and it took three weeks to lower it by air pumps to below that level. The motors were removed and dried out by CEPCo, who had such driers, at Carn Brea; both being back in service by the end of

April.⁵

The mine management now realised the value of an alternative supply, which would have avoided this flooding, and paid for the second 10 kV line with inter-locked change-over facilities.

A heavy inflow of water around the 580' mark was over-come by the new cementation process in May 1924.

The second Pump Station, at 1000', was completed by March 1925, with two Hathorn Davey 2-throw double-acting pumps. All four Hathorn Davey pumps had Guttermouth valves, and were second-hand from Giew Mine.⁶

Progress so far created an air of confidence, and at the 4th OGM on 23rd June 1925 Mr C A Moreing said, "it is, one of these days, going to be the foremost tin mine in Cornwall".⁷

By November 1925 the shaft was down to 1710' and a third pump had been cut out at 1960'. A Mather and Platt Plurovane 6-stage Turbine Pump, 260 HP 3kV motor @ 1470 rpm giving 600 gpm to 1000', was

installed here, pumping to the 1000' station. There, an identical Plurovane pump was added, pumping to surface. The Hathorn Davey pumps at 580' and 1000' then became the stand-by system. ⁸

Plurovane pumps had accurately machined single entry impellers which in conjunction with the balancing disc kept the complete rotating element in perfect hydraulic balance. Heavy duty pumps had an oil-lubricated thrust-bearing on an extended shaft with a water jacket around it and the oil-tank also water-cooled. ⁹

An electric winder was installed in the same month supplied by CEPCo for £4000 by four annual payments of £1000. At first the wooden headgear was used without struts on the winder side, but it swayed about despite the stays, so struts were added.

The 2000' mark was reached in May 1926, incoming water being lifted by air pumps to the pool at 1690'. Cross-cutting was then started, looking for the lodes, but despite considerable work no ore bodies were found. ¹¹

In February 1928 all operations were suspended and the pumps withdrawn. The surface plant was gradually removed and the shaft fenced - a sad ending after the hopes raised at the 4th AGM, though there had been reports that more capital was needed. It was then announced that all further development of Tolgus would be from East Pool and Agar. ¹²

The quarterly MD had always been over 500kW and reached the highest, 696kW, in the March quarter of 1928, just before closure.

CEPCo released the mine of their obligation to pay the final £1000 installment on the Electric Winder. ¹³ It was taken back and soon went to Jantar, Porkellis.

The substation was kept in service and in 1926 the 10kV line was built from there to Wheal Kitty and on to Trevemper and Retew to link with the line from Bissoe to Truro. The transformers were moved to Wheal Kitty. CEPCo eventually vacated the substation site c 1959.

Bewick Moreing and Co had opted out of the Combined Pumping Scheme with South Crofty as they envisaged a link between East Pool and Tolgus in their own scheme.

A second pump would be necessary if the combined mines expanded. Taylor's Shaft could not take a second line of pitwork and rising main, and they also had to allow for the total loss of the 90" engine, so an electric pump was the only option.

Bewick Moreing and Co ordered a large pump from Hathorn Davey and Co of Leeds. Photographs of it have appeared in publications, but hitherto devoid of technical details, which are:

Order Number 7392, March 1923, Horizontal electric pump, overall dimensions 30' x 16', two-throw double-acting 71/8" x 3' stroke, 11" suction and 8" delivery. Motor 420 HP 3kV 25 cycle @ 360 rpm on 12:1 double-helical oil-immersed gearbox and rated at 600 gpm to 1700'. Delivered in November 1923. The smallest shaft in which the parts could be lowered was 6' 6" x 3' 9". The price was £3,800, based on labour costs for a 47-hour week of 55 shillings for a fitter and 52 shillings for a labourer; pig-iron at £5.10.0 per ton and copper £72.5.0. per ton. ¹⁴

The pieces remained in store at Taylor's and the pump was acquired by East Pool in December 1929 when they took over complete control of Tolgus Mines Ltd. ¹⁵ At Change of Frequency in 1932/33 they claimed free conversion of the motor in accordance with the Electricity (Supply) Act 1926 and a new rotor was provided.

In 1947 East Pool closed and the pump was sold to South Crofty, who had acquired the rights, and was kept in case of the failure of Taylor's 90". The parts would not go down Robinson's or Cook's Kitchen, both being 6' x 2' 10".

Taylor's 90" was finally stopped on 28th September 1954 after the first stage of the new South Crofty scheme had been brought into service. ¹⁶ The final stage was completed in 1974, all in Cook's Kitchen. South Crofty no longer required the Hathorn Davey pump and all the pieces were sold for scrap together with the Holman Steam Winder (ex Botallack) and the remaining Holman Compressor. ¹⁷

The pump had never been assembled in Cornwall - indeed it had never pumped a pint. The scene at Tolgus in 2004.

There are no signs of mining in OS 6128, which is still used by South West Water as

a depot. The asbestos-clad substation building has been removed and the shaft is capped below ground level and not shown on the current OS map.

The only other big Hathorn Davey electric pump to be used in Cornwall was the horizontal 3-throw ramp pump with 71/4" plungers driven through gearing by a 350 HP 440v 25 cycle motor and capable of 450 gpm to 2000'. It was installed in Tresavean in 1912 on 248 fm level. It was sold in 1929 to South Crofty and installed on 140 level in Willoughby's Shaft. ¹⁸ It appears that the crankshaft was dropped somewhere between dismantling at Tresavean and 140 level. There was continual trouble with a bearing and it could only be run with that cap loose. The new 50 cycle motor in 1932/33 had to be dismantled in order to get to get it down he shaft.

Eric Edmonds

Written 7th November 1983.
Updated November 2004.

References - Tolgus Mine, Redruth

- 1a History of Tin Mining and Smelting - D B Barton, pages 255 and 270
- 1b International Mining Exhibition, London, 1923, Cornwall section, page 28
- 2 RCG 9th May 1923, page 8 and MM 1923 July, page 8. CRO Truro 1336 No. 1, 25" map
- 3 SWEB Cornwall collection
- 4 MM 1923 July, page 39 and 1924 January, page 38
- 5 MM 1924 March, page 166 and May, page 288. Edmundson's Monthly Magazine October 1924, page 65. Details of storm damage and drying-out procedure
- 6 MM 1925 March
- 7 MM 1925 27th June
- 8 MM 1925 November, page 295
- 9 Mather and Platt Ltd letter dated 25th June 1979 with leaflet P809 and drawing of thrust-block, Engineer 1st April 1924 page 124 - Plurovane Pump,

- 10 CEPCo Minute Book 6th November 1925
- 11 MM 1926 May, page 264
- 12 MM 1928 March, page 164, MJ 28th February, page 155 and MW 18th February 1928 Ref 1a above, page 275.
- 13 CEPCo Minute Book 5th July 1928
- 14 MM January 1922 page 8 and May 1922 page 288. MJ 14th January 1922 page 35 - Government inquiry completed. CRO Truro DD X172/1-29 - Report on Joint Pumping Scheme by Controller of Department of Development and Mineral Resources (Cd 9184) 1918 recommended that the Government help with joint scheme. RCG 11th April 1923 - AGM and report that electric pump ordered as stand-by, Sulzer Bros (London) Ltd letter 17th March 1975. They had taken over Hathorn Davey and Company and all their pump records, steam and electric, had been deposited with Western Yorkshire Archive Service, Leeds LS7 3AP.
- 15 Ref 1a above, page 275
- 16 Cornish beam Engine - D B Barton, page 243
- 17 Western Morning News 22nd August 1974, page 9
- 18 South Crofty Mine - J A Buckley, page 129. CRO Truro X234/7, note dated 10th December 1929.

THE TRIALS OF MR TREVITHICK

In the two recent editions of its bi-monthly Journal the Stephenson Locomotive Society has carried lengthy accounts of the activities of Frederick Harvey Trevithick (1852-1931), son of Francis Trevithick (1812-1877).

Christopher Walker, the author of these carefully researched pieces, eloquently tells how Frederick H Trevithick, the grandson of Richard Trevithick (1771-1833) was carriage and wagon superintendent on the Great Western Railway in the London district in 1880. He then became chief traction engineer and subsequently Chief Mechanical Engineer of the Egyptian State Railways between 1883 and 1912.

Walker details the comparisons between the British, Belgian and American locomotives supplied to the Egyptian railways. His well illustrated and documented story details the variations in design, performance, fuel and oil consumption, quality of build and even delivery times of the engines that were supplied to Trevithick's specifications.

At the time of Trevithick's arrival in the country, the Egyptian railways were in a parlous state. His work over the next thirty years set standards and led the system through the jungle of efficient design, industrial intrigue and political gerrymandering.

It would be impossible to meaningfully attempt a précis the wealth of information in the little space available here. I recommend that railway historians and Trevithick devotees contact the editor of the Journal,

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E-mail. Bruce-Nathan@btinternet.com
for their own copies.

Many readers will be mystified by news of this son of Francis Trevithick working in Egypt when they believed that his sons

were working for the Railway Department of the Japanese Government. This confusion is caused by the similarity of names and occupations.

Richard Francis Trevithick (1845-1913). In Japan from 1874. Locomotive superintendent at Kobe Works.

Francis Henry Trevithick (1850-1931). In Japan from 1877. Chief Locomotive Superintendent, Shinbashi Works (Tokyo)

Frederick Harvey Trevithick (1852-1931) In Egypt from 1883.

To add to the confusion, their uncle, brother of Francis was called Frederick (1816-1881) and was a Locomotive Superintendent in Canada.

There maybe more! I will have to consult Francis (Frank) Trevithick Okuno on his return from Japan.

P.M.Hosken.

The Society is sad to record the death of member Russell Bayles on February 17th. at his home at Chester at the age of 94. He

DEATH OF MEMBER

was well known in the world of industrial archaeology particularly in connection with the Dorothea Restoration Engineers and steam pumping. He also assisted D.B.Barton in helping with technical details in a number of his publications. Latterly he gave time to the restoration of the Queen's Mill in Lancashire.

All members are reminded that their subscriptions are now overdue. Please check you are paying the correct amount to

2005 SUBSCRIPTIONS

ensure you receive all your publications and information.

Sue Maunder,
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Penzance.
TR18 2AQ

K.E.M. OPEN DAY

King Edward Mine Open Day. Sunday 1st May 05.

The Preservation Group have arranged the following attractions:-

Camborne Youth Band.
Male Voice Choir.
Radio controlled model aircraft display.
M.G. Car club.
Model mine engines.
Children's art exhibition on a Cornish mining theme.
Tin vanning demonstrations, - try it for yourself.
Working demonstrations of the Mill, comprising Californian stamps, Round frame, Rag frames, Rotary convex buddle, and Shaking sand tables.
Sulzer diesel engine.
Model traction engines.
Vintage stationary engines,
Vintage tractors and cars,
Great Flat Load pasty race.

The programme of the main attractions is:-

10-00 Gates open.
10-30 Camborne Youth Band.
10-45 Sulzer engine fired up.
11-00 Start of Great Flat Load Pasty race.
11-45 Mill and stamps in operation.
12-00 Camborne Youth Band.
12-15 Sulzer engine running.
13-00 Mill and stamps.
14-00 Longships Choir.
15-00 Judging of children's painting competition.
16-00 Close

The Volunteers would be delighted to receive any offers of help from members during open day to make it as successful as possible.

Please spread the word to all your family, friends and acquaintances to help publicise your open day.

In early April of this year the first of a succession of publications will be in the

SOCIETY BOOK LIST

shops - a soft cover version of the Harvey Catalogue.

Further publications are in the pipeline and information on these will appear in the newsletter. As these become available visit your local bookshop and ask them to obtain a copy for you. If you use the internet you can order from Willow Books <www.willowbooks.co.uk> and obtain the members 10% discount. Willow Books will obtain any in print book for you and have a search facility for out of print volumes that is available to members. The discount applies to any publication ordered from Willow.

The success of Society publications depends on new works. The policy is to make the sale of publications self supporting but that does not mean that everything printed has to make a vast profit. The publication of books or papers of academic merit will always be considered and there is a Publications Committee that considers all prospective works. If you have or know of what might be a suitable book or pamphlet please contact the Society and it will be presented to the Publications Committee for consideration. Whilst the Society can not publish everything that comes its way, funds being available, it looks to produce, for Members and the industrial archaeological field in general, works that will further the aims of the Society.

Vernon Baldry

Publications are soft-back unless stated otherwise. All books are available from your local book seller or, if you use the internet, from Willow Books

PUBLICATIONS

www.willowbooks.co.uk. Willow Books give Trevithick Society members a 10% discount on ANY book ordered from them.

Holman - Cornish Engineering 1801-2001 £9.99

Cornish Pumping Engines £2.99

Cunnack Manuscript £6.99

Drawings of the Levant Whim £6.99

Levant a Champion Cornish Mine £6.99

Marconi at Lizard £7.99

Michell - family Cornish Engineers £4.99

Mine Accidents in the St Just District £2.99

Mr Lean & the Engine Reporters £4.99

Trevithick: First in Steam 1801-2001 - (CD-Rom) £7.99

Journals & Journal Index £6.00

Newsletter Binders £4.00

Holds 12 of the present-style newsletters of the Society.

Society necktie £5.00. Dark blue with the Society's engine house motif

in silver (Members only from Publications Secretary).

COMING SOON

For those of you that missed the limited, hardcover edition of the "HARVEY & COMPANY Limited" catalogue a soft cover version will be out in early April available from your local bookshop, priced £12.99.

The Society Newsletter will bring you information on further publications.

Vernon Baldry

SECOND HAND BOOKS

Through its involvement in the charitable company, King Edward Mine Ltd, the Society is committed to supporting the museum at King Edward Mine.

In the museum shop we are dedicating a corner to second-hand books on Cornwall.

Whilst our first wish are Cornish mining books, magazines, journals, and other mining related publications, we would also like to be able to offer publications on other aspects of Cornwall, be it history, travel, maps etc.

Clearly to make this work we need a source of shop stock. This is where you, a Society member can help. Have a look through those books 'stored' in boxes the attic, or those that you never read that are cluttering up the bookshelf (we have all got them!), and either give them to us, or sell them to us for a nominal amount. **All proceeds from the sale of this material will go towards helping to preserve KEM.**

Members are reminded that they get free entry to the museum and 20% off all shop purchases.

In the first instance please contact me on 01209 713506 or email t.pbrooks@tiscali.co.uk, or Kingsley Rickard on 01209 716811 e-mail k.rickard@trevithick-society.org.uk

Tony Brooks

The lagging around the cylinder of Michell's Winding Engine at Pool is painted

SIMULATED BRICKWORK

to resemble brickwork. Some 20 years ago, the Curator told me that the brick simulation had been done by one of his predecessors. How authentic is simulated brickwork? Are there any other examples of it? Should the cylinder lagging be restored to the usual whitewash? Members views and comments would be appreciated.

Bill Newby MBE (Tel: 01736 754358)

Chylason, 3 Fairfield Close, Lelant. St Ives, Cornwall. TR26 3JY.

CAN ANYONE HELP?

I am currently gathering information that will enable me to build a faithful working model of the Penyardarren engine. Can anyone help?

Mr. P. Hartshorn,
1 Bridgevale Road,
Leicester,
LE2 8DA

Further to my paper that appeared in the

IT HAPPENED AGAIN

2004 Trevithick Society Journal No. 31 concerning the interrupted pour of a very large cylinder required in Holland for pumping a very large expanse of water away to enable the dry land to be used for agricultural purposes, I found a letter that shows that Messrs Harvey and Co. made a smaller but similar cylinder for the East London Water Works Company. The letter clearly shows that during the pouring of the mould, for some reason the pouring of the molten metal was stopped and then restarted, and this interruption left a large number of holes in the casting, which were filled in by hammering pieces of wrought iron into the cavities. This cover-up was not discovered on the delivery and building of the pumping engine at the water works in London.

After a length of time in pumping service a re-bore of the cylinder was required. It was then that a number of holes were revealed and up to 40 of these, which had been previously concealed with wrought iron, required attention. They were dovetailed and refilled with pieces of solid copper, which were hammered into place. George Seaton, the water works engineer made the comment that Messrs Harvey's "work is anything but creditable".

Russell Webber

From East London Water Works Company. Office. 16 St. Helen's Place, EC.

9th June 1880.

Gentleman, the Directors of this company instruct me to hand you a copy of Mr. Seaton's report on the Prince Engine and request to be favoured with your remarks thereon.

Yours faithfully,
E. Bates (Secretary)

To Messrs. Harvey and Co.

Copy.
Engineer's report upon Prince Engine.

To the Chairman and Court of Directors—
Engineer's Office, Old Ford, 3rd June 1880.

Gentlemen, on Tuesday night the second cut off the re-boring of the cylinder of this engine was completed. I carefully examined it yesterday and find that the engineers have made an excellent job of it so far as lies in their power, but as I verbally stated some time ago, the cylinder has been cast in two distinct runnings, which is shown at about a distance of 8 inches above the bottom, and a large number of small pieces of wrought iron have been let in, some of which have come out during the process of turning, there are upwards of 40 holes which will have to be dovetailed and filled up with solid copper well hammered in, in several places. I was able to insert a steel ruler quite 1/2 an inch. When the work has been properly executed, I think the cylinder will stand for some time to come. The cylinder is now about 7/8 of an inch larger than it was previously.

At the same time the work is anything but creditable to the manufacturers. I hope to get the engine to work in a fortnight.

I have the honour to be, gentlemen, your obedient servant,

(signed George Seaton).

GAWNS WHEEL

Very good progress is being made on the Isle of Man at Laxey, where the Gawns Wheel is being refurbished and restored to its original site.

The front cover photographs show the axle being lowered into position on the prepared concrete plinths and the photograph below shows the arrival of the axle on site.

The massive axle has been restored at Ramsey Shipyard and has a combined weight of 7.5 tonnes. The bearing blocks each weigh a quarter of a ton. The timbers have been coated in grease to preserve them.

Thankfully for all concerned, the measurements have all been perfect and everything lined up correctly.

see www.snaefellwheel.com for further details.

SOCIETY WEBSITE

Various updates have been made to the new website (www.trevithick-society.org.uk) including some free downloads (screensavers and wallpapers) for members. For those members who have internet access this should be your first point of contact for the Society; any news will be posted here before it appears in the newsletter. All contact information for Council members is also here. Please use this facility for letting us have your views on what we do, don't or should; please also let us have your feedback on the website.

Pete Joseph



THE NATIONAL LIGHTHOUSE MUSEUM

Trinity House has decided to close its museum at Penzance and move it “up country” where it is hoped it will attract larger visitor numbers. Although the Trinity House records were lost during the Second World War it is known that it first leased the site at Penzance in 1861, when it was used to prepare the stone for the building of the Wolf Rock lighthouse. The current building is listed, dating from 1898, and in recent memory the site was a busy one, its workshop and buoy store bustling with activity supplying lighthouses with their needs and servicing buoys and other equipment from the Eddystone right round the Westcountry coast to Lundy. A short tramway crossed the road from the depot to the quay where, often to be seen moored alongside, was the THV Stella, the workhorse of the station, and much associated with the Society’s late Membership Secretary Capt. Mike Tarrant. The Museum was established some fifteen years ago and was an asset to the maritime history of Penzance. The Society paid a visit there a couple of years ago and the curator, Alan Renton, also provided a memorable lecture at the old School of Mines on lighthouses and their evolution giving special emphasis on fog warning machinery, his special interest. Never before were such peculiar noises heard from CSM!

The Society wishes the Museum well in its new location, wherever it goes, but a site with the appropriate architecture and provenance which will surpass, or even equal Penzance, surely cannot be found.

K.J.T. Rickard

CAMBORNE TREVITHICK DAY AND THE TREVITHICK LOCO

Thanks to the offers of assistance in response to frantic pleas for volunteers in the last newsletter, the Camborne Road Locomotive will make an appearance in Camborne on Trevithick Day (Saturday April 30th).

It is, however, very unlikely that it will take part in the procession of engines Up Camborne Hill due to the lack of a fully trained crew.

The volunteer assistance has also made it possible to have a larger tented stall, which will be more comfortable for staff and visitors alike, and will allow for a bigger exhibition of Society projects as well as the book stall.

The next major event in the Society’s calendar, that will need just as many volunteers (if not more), will be the West of England Steam Engine Rally at St. Agnes on 19th, 20th and 21st August. That event will celebrate the 50th anniversary of the West of England Steam Engine Society and the 70th anniversary of the Trevithick Society. It promises to be a very special rally, and we are planning to erect a marquee to display a sizeable exhibition concerning the history of the Trevithick Society and projects it has undertaken. The Camborne Road Locomotive will also be at the rally provided there are sufficient volunteers.

Both of these events are tremendous show-cases for the Society, where we meet many members of the public who are not only keen to learn more about our industrial heritage but often have fascinating stories to tell of their own experiences as miners, engineers or whatever. These are fun days and the satisfaction to be had from volunteering is very rewarding. So, if you feel that you would like to help out at either event do contact Kingsley Rickard on 01209 716811.

Colin French

ROWE HILLMASTER

Rowe '50' Celebrations: 20th March 2005

On a beautiful spring Sunday several hundred Cornish vehicle enthusiasts, including your Chairman, flocked to Dobwalls to mark the 50th anniversary of the first production Rowe Hillmaster lorry.

There they were rewarded with an exhibition of over 400 photographs as well as plans and memorabilia, many hidden away on closure of the company and only recently revealed. Most importantly three of the surviving trucks were on display.

The Vercoe family had brought their 'flagship' truck 798 AAF from St. Stephen – this is the vehicle restored by Brian Honey at the behest of Maurice Rowe. 161 LTW, which spent its working life in East Anglia, arrived from Leicestershire on a trailer. Owner Grahame Voss, who drove Hillmasters for Hollingsworth of Melton Mowbray, intends to start restoration soon. On the Rowe garage forecourt was 246 ACV now owned by Colin Pitt of Otley and driven down by him the previous day, taking 10 hours for the journey.

20th March also saw publication of the first Rowe history by Peter Tutthill. All available copies sold out on the day but copies are obtainable from local shops and Peter himself on 01208 812358.

Ironically the very first published information on Maurice Rowe and his vehicles was an article in this Newsletter by the Rev. Colin Short nearly 30 years ago in August 1976.

Graham Thorne



Photographs from Peter Relf

BOOK REVIEWS

Rowe Hillmaster, The Cornish Commercial Vehicle, by Peter Tutthill, A4 72pp, just £9.99 + carr.

Peter Tutthill is a well known author of books on Cornish localities and his particular hobby, motor vehicles of all kinds. 2005 is likely to be his most prolific year with several books reaching the publication stage.

This book is the story of the Maurice George ('M.G.') Rowe who purchased a small garage at Dobwalls near Liskeard in 1932 and developed a successful taxi and coach business alongside his day to day servicing of motor vehicles.

Peter recounts in considerable detail with some 200 illustrations to delight transport enthusiasts everywhere how 'M.G.' developed a remarkable series of truck and omnibus chassis to offer his customers a variety of 126 specifications.

'M.G.' and his team built 120 vehicles that became a common sight on the country's roads. They were also exported to Spain, Canada and New Zealand. His particular development was the adaptation of the vertical Meadows 4DC engine to lie horizontally within the chassis. This enabled many special bodies to be built and all are detailed in Peter's book.

The book celebrates the 50th anniversary of the first Hillmaster to be built and provides an amusing but detailed account of one of Cornwall's considerable industrial achievements. It will provide invaluable reference for future researchers into Cornwall's transport industry.

Members who went to Penydarren last year will be interested by the three coaches built on Hillmaster chassis that were supplied to Morlais Services. The book contains pictures of them standing in their home yard, the one used for the Merthyr Tydfil MBC Trevithick 2004 celebrations.

Several Rowe Hillmaster vehicles still exist today and are to be seen at displays throughout the country. For those interested, the West Country Historic Omnibus & Transport Trust, www.buseum.org.uk, has a project in

its infancy to restore a Hillmaster bus.

Peter is finishing his book on Cornwall's motor industry, a little known but very important part of its industrial history. We look forward to this contribution to the further understanding of our engineering competence.

Copies of this book maybe obtained from:

Peter Tutthill
Woodcott
Trevanion Road
Wadebridge
PL27 7PA
Tel. 01208 812358

P.M.H.

Stationary Steam Engines of Great Britain. Volume 10: Marine Engines, by George Watkins. Landmark Collector's Library. 192 pp. hardback. £29.99. ISBN 1-84306-107-4

This, the final volume in the series, contains approximately 200 black and white photographs taken by George Watkins, who bequeathed his vast collection of photographs to the English Heritage National Monuments Record Office. This volume is in alphabetical order of towns and cross referenced to engine maker.

Volume 10 also includes Steam Engine Record Vols 1-9 Additions; Subscribers contributions and ISSSES list of preserved engines.

The series editor is Tony Woolrich who has been cataloguing the collection for the last ten years.



TREVITHICK SOCIETY EVENTS AND CONTACTS

May 20th — 22nd
AGM weekend in West Penwith.

June 17th. C.C.
Hosken, Trevithick & Polkinhorn Co. Ltd.
by Phil Hosken & Ian John.

June 18th. Field Trip
Wheal Fortune & Cusvey
by Pete Joseph.

July 15th - C.C.
Members evening

August 13th - Levant
Birthday celebrations

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

*East Cornwall Branch meetings will be held
at the Public Hall Complex, Liskeard at 7.30pm.*

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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.

Subscriptions 2005:-

Single members	£15
Family (husband & wife)	£18
Overseas members	£18
Corporate members	£18
Student members	£5

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