

THE TREVITHICK SOCIETY

NEWSLETTER No. 42

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CORNISH WATERWHEELS

On Friday evening, 20 May, Alan Stoyel gave a lecture on waterwheels to a large audience of members and friends, using colour slides throughout the talk. Mr Stoyel began by showing examples of the various types of waterwheel and went on to show the development of the wheel and the gradual replacement of wood by iron and of stone bearings by metal. Examples of mills were shown, from simple early mills with direct drive to a single pair of stones, to a particularly Cornish layout using a horizontal layshaft to drive two pairs of stones.

Mr Stoyel—who was a founder member of the Cornish Waterwheels Preservation Society, went on to show examples of the many industries which used waterwheels. These ranged from sawmills and Serpentine works to gunpowder mills and spade works. The major developments in waterwheels were in the china clay and mining industries where wheels of up to 50 ft in diameter were used for winding and pumping, often the same wheel performing both functions and often remote from the workings, the power being transferred by reciprocating flat rods. The tin dressing mills used large numbers of waterwheels with systems of launders to convey water from one wheel to the next.

Many farms used waterwheels to drive machines like chaff cutters and threshers. Ingenious systems of drive shafts were sometimes used to convey power from the wheel to the farm buildings.

On Saturday 21 May, a group of enthusiasts travelled by coach and car to visit seven different waterwheel sites, a carefully chosen and representative selection to show the diversity of style and use of waterwheels. This was a most enjoyable tour and Mr Stoyel is to be congratulated on his superb planning—there was ample time to explore each site and yet the tour kept right on schedule.

The following are Mr Stoyel's notes on the places visited:

Wheal Prosper stamps, Lanivet (032642)

One of the most impressive stamps in the County to have survived, although its condition has deteriorated considerably in recent years. There are 16 heads driven by an overshot waterwheel, 15 ft by 5 ft 9 in, by Oatey & Martyn of Wadebridge. This is reputed to be the last Cornish stamps to have been built with wooden lifters.

The tin ore was trammed down the adit from Wheal Prosper and straight out to the stamps. The site of a second set of stamps can be seen nearby.

Laveddon Mill, Bodmin (052659)

An attractive corn mill that retains a waterwheel, iron machinery and a single pair of stones. Work ceased in the 1930s

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Additional visits

Two informal visits are to take place around the time of the AGM, which are additional to those given on the programme card:

Friday 23 September: Boswedden and Wheal Castle, led by Kenneth Brown. Meet at 12 noon in Kenidjack hamlet (where limited parking is available). This visit involves a lot of walking and climbing and is not suitable for the elderly. Stout footwear and sandwiches. The area to be visited includes some engine-house remains and the best waterwheel pit in Cornwall; it is under threat because Geevor mine has applied for permission to work the burrows. (Meeting point is at Grid 365323). Note: in the event of continuous rain, this visit will not take place.

Sunday 25 September. Meet at 1 pm at the Jamaica Inn on the A30 on Bodmin Moor. Mr Sandy Gerrard will lead a visit to recent excavations of early tin workings.

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Editorial

Compared with recent Newsletters, this one may be regarded as a Waterwheels issue. Not only do we cover a waterwheel-driven set of stamps in the main feature but we also have a full account of what was seen on the waterwheels visit on 21 May. All this will help restore the balance because while there always seems to be plenty of Cornish engine material available, this is far from being the case with Cornish waterwheels.

It is with some sadness that I pen this editorial—I refer of course to the retirement of our Hon Secretary, Mary Smyth, which takes effect from the AGM. Many members may not realise how Mary has worked long hours and against many difficulties to spearhead a more dynamic and efficient operation of the Society's affairs. With her total dedication, coupled with business acumen and experience, and with powerful support from our Membership Secretary, Treasurer and the rest of Council, she has raised the Society to a much better position for tackling the problems of the mid-eighties. For the age of enforced leisure into which this country seems rapidly to be moving will demand more from the purveyors of all recreational pursuits—which include industrial archaeology—than ever before. Our membership figure will reflect the standard of service we provide. Happily Mary is to continue to serve on the Council where her voice of wisdom will be valued by her successor, and by us all.

No adverse comment concerning the new typeface in the Newsletter having been received, this issue is being produced in the same style as the May issue. We can now fit more words on a page than we did, which represents an 8-10 per cent increase in reading matter. However we have found that with the transmission to and from Cornwall, the printing operation takes longer. The Editor is hit particularly hard because every scrap of matter has to be Xerox copied before despatch, to guard against loss: something that never had to be done when we were printing literally round the corner.

Thanks to an indulgent employer, this incurs no cost to the Society. But it inevitably involves waits before readied copy can be posted. Copying cannot, for example, be done at a weekend or when the machine is busy on the firm's work. Nor can the copy dates of 1 July, 1 October etc be brought forward because otherwise we would be unable to report the events of the AGM weekend in the following issue (November). Then there is always some late copy—for example, an important write-up for this issue was not received until six days after the 1 July so-called deadline. Under these circumstances, I am going to make no more promises regarding publication dates, other than saying that every endeavour will be made to get the newsletter into members' hands before the end of the month printed on the cover. For announcements of visits, and meetings, members should now place reliance on the blue programme card.

One last point. Many individual members know of particular places of interest to them which would probably interest a wider circle, and these members are now to be encouraged to lead a visit. It is stressed that the leader does *not* have to be a complete expert on the subject of the visit; it is often beneficial in site interpretation work to have a wide range of opinions. These additional visits will not, of course appear on the programme card, so the dates must be planned so as to allow plenty of time for prior notice in the Newsletter. Two such informal visits are detailed elsewhere. I shall be pleased to hear from members wishing to lead further such visits.

Finally, members are asked to read carefully the Minutes of last year's AGM and the Nomination notice on page 8. These will NOT be circulated again at the AGM. Members requiring tea before the AGM should use the order form on page 8.

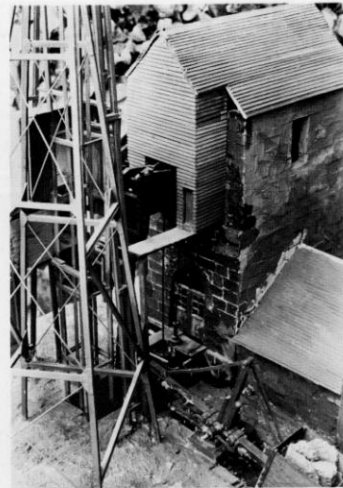
Kenneth Brown

Hon Secretary's column

Referring to my column in the May Newsletter, I regret that we have been unable to influence the authorities with regard to the Hornblower Cottage, Salem. The District Council has consent to restore, improve and add to the building, making it into two dwellings.

British Rail held a commemorative day at Dartford, Kent, on the 150th anniversary of the death of Richard Trevithick, and our Chairman, together with some other members, was present. Mr Law helped to lay a wreath, with the Mayor of Dartford, and spoke on the achievements of Richard Trevithick. (This event is referred to elsewhere).

In April 1984 the Camborne Traders' Association propose holding a 'Trevithick Day' and the Council of the Society hope to take part. Mr Clive Carter will put his Dolcoath model on display, and Mr Eric Edmonds will provide a full exhibition of the Society's publications in Camborne Library. A lecture on



Clive Carter's Dolcoath model centres on New Sump Shaft and its 85-inch engine at the turn of the century.

Richard Trevithick may be arranged, together with a short article on him if the organisers require it for a brochure.

Mr Jim Hodge has written an article on Richard Trevithick which it is hoped will appear in *Cornish Life* later on this year. Your Society has joined the Historical Metallurgy Society and hopes to take part in blowing house excavations in West Devon and Cornwall.

Clive Carter is producing suitable pictures for Christmas Cards and it is expected these will be on sale at the AGM this year. It is hoped that members will buy packets of them as they will help to advertise the Society and bring in more members.

This will be the last Secretary's Column that I shall prepare as I am retiring at the AGM, and my successor will be responsible for the column in the November issue. MS

Mineral statistics on computer

Mr Justin Brooke wishes to inform members that he has a preliminary computer print-out of MINERAL STATISTICS: Tin/Copper/Lead/Iron/Zinc. Cornwall, 1845-1913, which is available for consultation. See with postal enquiries, please, to him at Chymorvah Vean, Marazion, Cornwall.

The work is part of Dr Burt's scheme to get the whole of the UK mineral statistics on file and then to publish them. He started in the north of the country and is gradually working his way down to Land's End.

Coming events

AGM Lecture and Field Trip 23-24 September

On Friday, 23 Sept, Tony Brooks will present a lecture entitled *King Edward Mine, 1896-1921* at the Camborne Community Centre, South Terrace at 7.30 pm.

The field trip on Saturday afternoon, 24 Sept, meets at King Edward Mine site (664388) at 1.45 pm. The mine lies ½ mile north-east of Troon. Driving from Camborne to Troon, turn left at the Grenville bus garage, just short of the enginehouses at South Condrurrow, and the mine is ¼ mile down on the left. The trip is primarily an underground visit to the adjacent Great Condrurrow Mine which is operated as a field station by the Camborne School of Mines.

Access to the levels is by 100 ft of ladders. Stout footwear or preferably ribbed-soled wellingtons are essential. Hard hats and lamps will be provided but visitors are advised to wear old clothes or at least an old jacket. All visitors (who must be over 16) will be expected to sign an indemnity form. Those between 16 and 18 will be required to have the form signed by a parent or guardian.

On surface, there will be the opportunity to visit the buildings at King Edward, which date from 1900 or earlier, and the Californian stamp battery which is probably the finest surviving example in UK.

Inquiry from Down-under

Can anyone help with information about the descendants of the children of William Clemence and his wife Elizabeth (nee Jenkins)? Their son, Richard William Clemence, one of several, was born around 1858, probably in Cornwall. He left ship in Victoria, Australia around 1878 and his descendants are still living there.

Any information about the descendants of the brothers and sisters in England would be much appreciated by Mrs K M Fawcett, 35 Barkly Street, East Brunswick, Victoria 3057, Australia. She is a great grand-daughter of Richard William Clemence.

Gawns waterwheel

The following letter has been received by our Secretary from the Mid-Wales Mining Museum, Llywernog Silver-lead Mine, Ponterwyd, Aberystwyth:

"Thank you for your letter and the continued interest of your Council in the Gawns (Blisland) or Snaefell Water-wheel.

"Although the wheel remains in a dismantled state at the present time, a considerable amount of work has already been undertaken in cleaning up the shroud sections prior to re-erection. All un-reclaimable bolts have been cut out, together with rotten ladle boards and raisers. The wheel has been surveyed and a quantitative analysis made of missing parts, and parts which are sound enough to be re-used. Metallurgical studies of the multiple fractures (caused by spoke removal and settlement at Blisland) have indicated that the cast-iron is, in some instances, too coarsely crystalline and brittle to be the subject of effective re-welding and, even with such processes as the 'metal-lock' system, jointing could prove weak in the long-term.

"Of the 44 shrouds which went to make up the circumference of the original wheel, only 30 are thought to be in any way reusable, with two thirds of these requiring extensive cast-iron welding. Thus in the finished restoration some 14 new castings will have to be grafted in to complete the wheel.

"Detailed costings for this work were obtained as far back as 1978 and many discussions were held with specialist timber importers for the supply of taper-sawn pitch-pine spokes (44 of approx. 22"4" x 8½" x 6½"). Considerable quantities of elm still exist in the present time and this was agreed as being the most suitable timber for the ladle boards, sole boards and raisers. The main axle requires lathe turning to skim the irregularities caused by 'dry' running when the wheel was in position in Cornwall. An engineering workshop capable of handling this 3½ ton axle has been located, and that same organisation can supply new brasses for the two plunger blocks.

"In 1978 all this added up to £21,000 and current updates have taken the figure over the £30,000 mark. The on-going development plans for the Llywernog project embrace the wheel reconstruction as a major, short-term item, together with a new underground display gallery and reception building. With a total budget of around £80,000, this capital investment will make Llywernog Mine Museum one of Britain's major centres for the interpretation of our metal mining heritage. We make no apology for remaining a truly private museum and feel that Trevithick himself would have admired our independence and determination!

"With the recession showing distinct signs of being over, the Museum's planned time-scale for this new phase indicates a commencement in July/August 1984. The officers of your Society, together with members of Council, will of course be invited to attend a 'Count House Dinner' in honour of the recommissioning ..."

Peter Lloyd Harvey, Mine Manager

Sesqui-centenary of Trevithick's death

A commemoration of the sesqui-centenary of the death of Richard Trevithick at the Bull Hotel, Dartford, Kent, on 22 April 1833, was organised by the Southern Region of British Rail on Friday evening, 22 April, 1983.

A small exhibition at the hotel (now styled the Royal Victoria and Bull) included a children's painting competition, a working model railway and a display by Kew Bridge Engines Trust at which the Trevithick Society's publications were on sale.

Mr Terry Warburton, Public Affairs Manager, Southern Region, welcomed the Deputy Mayor of Dartford, Councillor Mrs R.L.F. Povey and invited Mrs Cherry Michell to lay a wreath beneath the plaque to Richard Trevithick in the courtyard. This plaque carved in Cornish slate by Dicon Nance was unveiled some years ago. Mrs Michell is the grand-daughter of our late President, Captain R.E. Trevithick and therefore a great-great-grand-daughter of the inventor.

The Deputy Mayor made a well-informed speech on Richard

Trevithick and his connection with the town. She was thanked by the Chairman of the Trevithick Society for attending the proceedings and for carrying out the delicate task of judging the children's paintings. He went on to point out that Trevithick not only built the first railway locomotive, but also the first Cornish pumping engine at Wheel Prosper in 1811, though both were developed by others. The high duties attained by the steam engines in Cornwall burst upon an astonished engineering world in the 1830's. In the 1840's, the atmospheric system revived interest in fixed engines for railway traction as it seemed to promise a means—"a rope of air"—of employing highly efficient engines working on the Cornish system. Now we have a rope of electricity generated by steam turbines, which like the Cornish are also high pressure, expansive condensing engines. Richard Trevithick was therefore the source of the competition between fixed and locomotive engines, which still poses a dilemma for the railways.

RJL

Editor's note

Despite our Chairman's participation, the Society was unfairly criticised in the Cornish press and on the local radio for not taking more interest in this event. To set the record straight:

- The offer by British Rail of free travel from Cornwall to Dartford and assistance with accommodation was limited to Council members, all of whom were contacted;*
- BR never informed us about the event until too late for inclusion in the February newsletter.*
- The newsletter editor took it upon himself to circulate several members living on the right side of London (we have none living in Kent), some of whom did attend;*
- Our Secretary, Mary Smyth, also spoke on Cornish radio outlining the Society's position regarding the event.*

From the letter from Mrs Tomalin (published on page 7 with British Rail's reply) it would appear that our Chairman's support of the event was fully adequate, especially considering the short notice given to the Society for something which BR must have been planning for the best part of a year.

Waterwheels weekend (continued from pg 1)

and the layout suggests that there was once a second water-wheel.

The main item of interest is the waterwheel, which has been widened at the shrouds by about 6 in, but not at the naves! It is overshot, 12 ft by about 3 ft 5 in, by T. Fisher of St Austell and the wheelshaft, like many in the Bodmin area, appears to be a reused section of cast iron pump column.

West Ruthern Farm, Withiel (012669) Illustrated

This is a farm wheel but it is unique in having a set of wooden stamps with a wooden barrel that was used for crushing bone. The overshot waterwheel, 15 ft 6 in by 3 ft 6 in, is by G.H. Harris of Wadebridge and it drove a fascinating series of gears on both sides. One of the belt-wheels incorporates half of a very small waterwheel. The use of a long rotary shaft to transmit power from a waterwheel is well seen here, too.

Hingham Mill, Egloshayle (020725)

Hingham Mill is probably the best-known example in the County and was the last to remain in regular use. It is far from typical, however, with its 16 ft 6 in by 2 ft undershot waterwheel. There are two pairs of stones driven by iron counter gear and the mill is also unusual in having a basement below wheelshaft level. The machinery was renewed in about 1910 by G.H. Harris of Wadebridge.

Lemal Springs, Egloshayle (018733)

An overshot farm wheel, 14 ft 3 in by 2 ft 9 in, of relatively recent date exists here beside some stone walling that was intended to become a barn. The wheel is in fairly good condition but was never used.

Lemal Quinneys, Egloshayle (023728)

A fine survival of a farm wheel, complete with a barn thresher. An attractive long slate launder conveyed water to the pitch-back waterwheel, 16 ft by 2 ft 3 in, by Oatey of Wadebridge. A ring gear is attached to the shroud of the wheel.

Hawksland, St. Issey (950710)

An impressive example of a farm wheel with a long rotary shaft across the field to the barn. The iron overshot water wheel, 20 ft 1 in by 3 ft, by Oatey & Co. of Wadebridge was spring fed and is below ground level. It was last used in 1941. The barn has been gutted although there used to be a pair of stones and a thresher.



Locke Stamps—a West Cornish conservation project

In this short article, Bill Newby describes the history of Locke Stamps, Nancledra, and other stamps in the area; Kenneth Brown took the photograph of their re-erection at Geevor Mine Museum.

Members may recall an article in Newsletter No 26 (August 1979) on Nancledra Stamps by Andrew Berryman. The stamps at Locke (GR.501355) stopped work in 1954 and remained, almost complete, until early this year. Then they were dismantled and removed to Geevor where they are being restored and re-erected at the Mine Museum. The work of dismantling and removal was carried out by Clive Carter and Geevor geologists Charles Smith and Martin Mount with occasional help from other members of the Society.

Locke stamps were the middle set of three which used the same water from the grist mill at Nancledra. The sluice gate remains below the mill and the leat can be traced across the road towards Little Stamps (now a cottage). Beyond the culvert under the road at Little Stamps the leat has been ploughed over but it can be seen again quite distinctly between Locke and Barkells.

The site at Locke is interesting. Very little remains of Locke farmhouse which was occupied by John Bennetts and his family

at the time of the Tithe Commission in 1839. The adjacent stamps site is listed in the Tithe Schedule as "Dwelling house, Grist mill, Two stamping mills and stamps plot, Garden". Nothing remains of this house or mill. An extension to the west of the farmhouse (not marked on the 1839 map) could have housed a grist mill after the destruction of the original. The position of the gable wall in relation to the leat and the apertures in the wall suggest this. At the time of the 1841 census, the stamps dwelling house was occupied by Henry Barfield, tin dresser, Nicholas Oates, tin dresser, his wife and seven children.

Although the stamps have been removed their position can be deduced from the location of the wheel pit and ore chute. Four iron bolts to the east of the wheel pit mark the position of a second set of stamps. The remains of three circular buddies are to the west. The 8-head set of stamps was gear driven from a 17ft water wheel by Sara of Camborne, believed to have been installed in 1895.

The Tithe Schedule lists Barkells stamps as, "Two stamping mills and plot, Waste by the river, Garden". Mr Berryman in his article describes the two mills as "500 yards between so that the tin etc. was washed down to the bottom floors". The 500 yd is puzzling—Barkells is 330 yd from Locke and 500 yd from



Top picture: Locke Stamps in January. The stamps barrel, its lifting cams protected by 4 by 4 in timber, is levered away from its frame by Charles Smith.

Left: Clive Carter re-assembling the stamps frame at Geevor in June. The new wheelpit is on the left.

Cucurrian Mill, an ancient corn mill later worked as a stamps and having its own leat drawing water from the river at Ashtown Farm. The mill is now converted into a house but the water wheel remains and the barrel of the stamps, set upright in the ground near the river, can be seen from the road. Was the tin stuff sent from Barkells to Cucurrian or did the wheel at Barkells drive two sets of stamps with a set of buddles on a lower floor 5 yd away?

Much of the ground at Barkells has been turned over but a wheel pit 18 ft by 3 ft remains with a well-constructed head race. Two 10 by 5 in timbers, 2 ft apart, are set upright some 3 ft from the wheel pit on a platform about 18 by 12 ft below a substantial retaining wall 6 ft high. Behind the two uprights—presumably a stamps frame—and cut into the retaining wall is a recess some 6 ft wide, possibly an ore bin. There is no sign of "the bottom floors" but close inspection is difficult as the site is heavily overgrown. Access was from the Nancledra-Crowlas road; a paved ford crosses the river to the bottom of the site.

A visit to Geevor Mine Museum in mid June found Clive Carter assembling the Locke wheel shrouds (rims) flat on the ground to assess what was required in the way of new bolts and tie bolts in order to reassemble the wheel. New buckets of wood are required and, due to their shape, will require some skilled joinery work in Douglas Fir.

The stamps frame was almost erected, using new timbers, but since the mechanical parts are somewhat worn it is not intended to run the stamps. Nearby a concrete wheel pit has been constructed and it is proposed to run the wheel with the gearing to the stamps disengaged.

The prominent position of the stamps at the end of the car park where visitors have to pass on their way to the Museum building guarantees that the rebuilt stamps will receive plenty of attention. Geevor Mine has very kindly provided manpower from time to time but Clive Carter is in charge of the work.

Book reviews

Cornwall: its mines and miners, by J R Leifchild. Published 1857—Reprinted 1968 by Augustus M Kelley, New York.

This was described by its own author as a "popular introduction to metallic mines", and would therefore seem to be a first reference point rather than a source of detailed information on individual mines or working practices. However, the reprint, now apparently remaindered and certainly available at Truro Book Shop in Frances Street, is probably well worth having at £8.75 (hard back) for 303 pages of text with numerous tables, charts and diagrams.

The contents are divided into 98 sections ranging from portraits of individual mines such as Carclaze and Huel Wherry to foreign tin ores, management and working of a mine, and hints to speculators and investors in mines. The latter—as well as containing a great deal of plain good sense—are also rather amusing.

Practical observations were, for instance, to use great caution when a mine was being represented as being capable of being commenced without machinery; or to be cautious when the purser of the mine was a trader or shop keeper as mining capital was useful to extend private trade. Also it was pointed out that resident shareholders sometimes took shares in a neighbouring project if it would help to drain their own mine of water which had accumulated in it.

The author goes on to suggest that "to determine the number of shares you will take in a very promising mine, first consult your wife, then count your children, and lastly, calculate your household expenses.

"When you have invested, make up your mind to lose; and then any gains will be clear gains, and (prevent) disappointments. Send the author a £10 for his advice—good in either event!"

PS



Devon Cavern tokens, by Yolanda Spanton and Neil Todd. Published by Exeter Industrial Archaeology Group, c/o Department of Economic History, University of Exeter, EX4 4RJ Price £4.50

This A5 size publication of 180 pages and published by our sister group in Devon covers a subject never previously tackled, and can only be compared with the book published some years ago on Cornish Tokens—basically from the mining industry.

A detailed introduction is given as to the economic and political times in which the tokens were issued, the families who

produced them and various statistics as to the correlation between the issue of tokens and the growth in population. These tokens are all 19th century in origin, but are spread throughout the County of Devon, with Exeter as the main place of user. Details are given of the size, design and likely date for each of the 136 cavern tokens described. This will be a valuable book for collectors but is more a reference work than a 'good read'.

It is impossible to comment on the book without bewailing the size and clarity of the photographs of the tokens themselves. In places these appear so small and indistinct as to be virtually worthless.

PS

Recording activity

Bill Newby writes: As those who attended our recording sessions on 5-6 August will have learnt, members of the Society now have an opportunity to make a major contribution to the recording of the monuments of the industrial revolution in Cornwall. The groundwork has already been prepared.

At the Institute of Cornish Studies a team of four, under the direction of Prof Charles Thomas and financed by the Manpower Services Commission, has compiled a register of some 7,000 sites. This register now supplements the Sites and Monuments survey of the Cornwall Committee for Rescue Archaeology (which previously had few industrial sites) and will become, eventually, part of a national computerised register.

However since it is based on documentary sources such as the 1880 edition OS maps, the register simply locates sites where industrial activity has taken place in the past. The task awaiting members is to bring this register up-to-date, to report on the survival and condition of sites on the register and to record the existence of sites previously unrecorded.

This task can be done in two ways: members can take copies of the register to make a systematic survey of particular industries in their own Parish and bring the sheets up-to-date; alternatively, members can work independently and record sites as they find them, their reports then being added to the appropriate register sheet or forming the basis of a new one. This alternative method might provide a useful activity for up-country members on holiday in the county! Naturally there will be some duplication but this leads to greater accuracy, particularly if the format used follows that of the register sheets. Reports, on A4 paper, should be headed:

PARISH ITEM	GRID REFERENCE MEASUREMENTS	DESCRIPTION
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At the bottom of the page give the name and address of the owner or tenant (if known) and your own name and address and the date of your visit. Use the back of the sheet for a sketch or plan with scale. Photographs, which should be black & white, may also be attached.

Those wishing to undertake a systematic survey should write to me saying which industries they would like to record and in which parish, enclosing a foolscap size for copies of the register sheets. Updated register sheets and reports should then be returned to: Cornwall Committee for Rescue Archaeology, Room 4, Old County Hall, Station Road, Truro TR1 3EX. Tel: (0872) 74282 Ext 330.

Members who already have completed surveys are invited to send them to CCRA where a copy can be made and the originals returned. Researchers are reminded that the CCRA has annotated maps, aerial photographs and other records of interest to industrial archaeologists. (The CCRA should be added to the list of sources on Page 2 of Newsletter No 37).

Finally, there is still a need for more recorders all over the county who could step in at short notice whenever an important piece of evidence is under threat of destruction—see Newsletter No 39, page 2. My address is Bill Newby, Goned Viscoe, Lelant Downs, Hayle TR27 6NH. Tel: (0736) 740337.

Firefly receives go-ahead

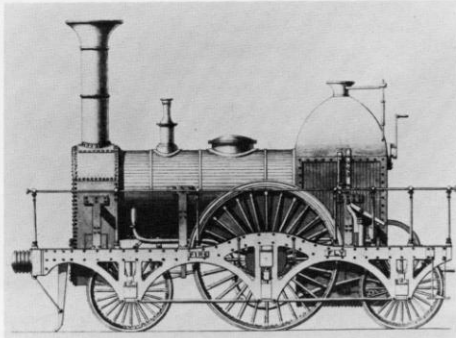
We have received notice of an appeal from the newly-formed Firefly Trust which aims to build a working replica of a Great Western broad-gauge 2-2-2 locomotive and carriages to commemorate the opening of the Great Western Railway in 1838/40. The scheme is being sponsored by Bristol Industrial Museum in collaboration with British Rail and is the brainchild of consultant architect and member of this Society, John Mosse. (He is currently engaged in the restoration of I K Brunel's Bristol Terminus at Temple Meads).

Sixty-two Firefllys were built between 1840 and 1842 by seven manufacturers. Standardisation was assured by the issue of tem-

plates and cast iron mandrels. Greater reliability was ensured by this method and most Fireflys enjoyed a working life of over 35 years.

Although other replica 19th century passenger engines have been built in Britain, the Firefly locomotive will be unique. In addition to broad gauge wheels to satisfy GWR perfectionists, Firefly Mark 2 will also have a standard gauge set to suit BR track. Other refinements to Daniel Gooch's design of 1839 will be necessary to meet Department of Transport safety requirements but these will not spoil the locomotive's good looks.

It is hoped that 'Firefly' will eventually work a regular summer timetable in the Bristol area, carrying fare-paying passengers over BR lines. The potential for its use is colossal and the Trust intends to donate its operating surplus to charity. The



locomotive is to be based at Bristol's progressive Industrial Museum but long-term plans include loan facilities for open days and special events in Britain and abroad.

Sir Peter Parker, Chairman of British Rail, has become the first member of the Trust. Two thousand others and £400,000 are needed to ensure the project's success.

Annual membership of the Firefly Trust costs £5 and applications should be sent to The Treasurer, Firefly Trust, Barclays Bank, Manvers Street, Bath BA1 1JZ. Members will get priority whenever and wherever special runs take place. Further information can be obtained from Paul Elkin, Curator of Technology, Industrial Museum, Princes Wharf, Bristol.

Now who's bats?

Members will recall the editor's recent allusion to Carrick DC's plan to squander a million pounds on capping a thousand mine-shafts. Imagine our Hon Secretary's surprise when she received the following letter from a body whom we normally hold in respect:

"Dear Madam,

"May I draw your attention to the comments made in 'News Briefs' on page 8 of the Trevithick Society Newsletter for May? Carrick District Council has undertaken a long overdue operation of shaft capping. This work is being done by the Council in close co-operation with the existing mining companies, mineral owners and land owners. To describe it as 'shaft capping mad' is both irresponsible and foolish.

"Frankly I am surprised that the Trevithick Society should publish such statements.

"Yours faithfully,

L.A. Stuthridge, vice-chairman,
Cornish Mining Development Association."

Of course nobody is denying that a few of the shafts might need capping on safety grounds, and the letter drew a justifiably scathing reply. But hist, do we hear a tiny creature scratching?

In June, the *West Briton* carried a story that following a survey by naturalists, it was estimated that up to 400 of these mineshafts may turn out to be breeding or roosting places of the Greater Horseshoe Bat. Moreover, according to legal experts, the council could face prosecution and be fined up to £1,000 for each habitat they block off!

Now the scheme may be modified to include special fencing instead of caps, or caps with openings designed so the bats can fly in and out. This will add even more to the cost. Now we wonder, from whose belfry did those bats appear . . . ?

Trevithick's Pen-y-Darren locomotive

Extracted from 'Mining Journal', 24 October 1857, p 749

Original locomotive engine of Trevithick—In order to preserve the memory of the Locomotive or High-Pressure Tram-Engine, invented by that great mechanic, Trevithick, Mr Ellis, the well-known engineer, of Pontypridd, has had prepared a lithograph drawing of this engine, in accordance with the testimony of Rees Jones, who aided in the fitting, and William Richards, its driver.

This lithograph, which is well executed, by Mr Campin, of the Patent-office, Strand, is published at the office of the *Mining Journal*, where the original sketch is preserved. Underneath the drawing it is stated that the engine was designed on the original plan, dated 1803 as "Trevithick's High-Pressure Tram Engine", and was constructed partly in Cornwall and partly at Pen-y-Darren Works, by Richard Trevithick, engineer, for Mr Samuel Homfray, proprietor of the Pen-y-Darren Iron-Works, Merthyr Tydvil, who, while discussing the principles and feasibility of locomotive steam-engine power with Mr Richard Crawshaw, of the Cyfarthfa Iron-Works, made a bet of one thousand guineas that he would convey by steam-power a load of iron from his works to the Navigation-house (nine miles distant), along the basin tramroad, which, by means of this engine of the great Trevithick, he afterwards effected, and won his wager, although the heavy gradients, sharp curves, and frangible nature of the cast-iron trackway operated against the return of this ingenious though rudely constructed machine with the empty trains: hence its discontinuance.

In this engine the exhausted steam was discharged into the chimney stack, and the wheels were combined together, so that to Trevithick is the credit due for the application of these two principles to locomotive engines. Rees Jones, who aided in the fitting, and William Richards, its driver, and the latter now in his 85th year, has worked no other than Trevithick's high-pressure engine. To this day, portions of the engine exist in the one he now works at Pen-y-Darren and during a period extending far beyond half a century never having had an accident with his boiler.

Chairman's note: This paragraph was published by Francis Trevithick in his Life of Richard Trevithick, 1872, Vol 1, pp.175-6 without date, but over the name of Thomas Ellis. I have not seen the lithograph, but have no doubt that it is that reproduced in the Life pp. 180-1. It is very close to the well-known Llewellyn drawing, indeed it must be based on it for Ellis refers to "the original plan, dated 1803".

Society publications

Mr Eric Edmonds has sent the editor a few alterations to the publications list, but space precludes detailing here. A full list with latest amendments will be published with the November newsletter.

Mr Edmonds says that postage can be saved by members wishing to make purchases doing so at the AGM. However to enable him to plan his stock, he would appreciate a note beforehand of what publications any member is likely to require.

News briefs

The Society's representative on the Cornwall Society of Rescue Archaeology is John Stengelhofen.

* * *

Does any member know the whereabouts of the Society's stand front? It was used a few years ago when we had a stand at the West Cornwall traction engine rally, but it does not seem to have been seen since. Any clues to our Publications Secretary, please.

* * *

Helmut Drubba of Hannover informs us that *Frankfurter Allgemeine Zeitung*, the leading German daily, just had a long article commemorating Richard Trevithick's death 150 years ago. A xerox copy of this article is held by our Publications Secretary.

* * *

Cornwall County Record Office, County Hall, Truro, advises that *List of Accessions April 1981-March 1982* and ditto *April 1982-March 1983* are now available for purchase by members. The price in each case is £1.00, or by post £1.50 (to cover packing and postage).

Correspondence

Dear Editor,

Dartford 'Trevithick Day'

Thank you very much for sending my husband the hasty note about British Rail's 'Trevithick Day' on April 22. Unfortunately, he died just exactly one month before. He would have loved to come, to have celebrated the fact that BR was, at last, prepared to acknowledge 'Cap'n Dick' as 'The Father of the Locomotive'. And he would have been just as disappointed as I was . . .

Unable to face a lone journey on public transport so soon after my husband's death, I persuaded friends of ours to drive me down to Dartford. I wanted to go both in memory of my husband and of his great idol: my friends, though rail-fans themselves, came mainly to help me. Sadly, all we found at Dartford was a feeble BR Public Relations exercise. The only reference to the great Cornishman was a child's drawing of Trevithick's Loco (and that only as part of a safety drive on railways) and a whimsical 'Cornish menu' served at the Royal Victoria.

We were not able to stay for the wreath-laying ceremony, so we came away, sadly, with the sound-track of the BR film still roaring in our ears, telling us why there must be further cuts in services and further rises in fares implemented.

What a con—not to say a travesty!

Yours sincerely,
Madeleine Tomalin,

61 Gloucester Avenue, London NW1 7BA

Editor's note: I am sure all members will join me in expressing condolences to Mrs Tomalin. With her permission, her comments on the Trevithick Day were passed to BR's organiser, Richard Marks, whose reply appears below:

Dear Editor,

Dartford 'Trevithick Day', 22 April

Thank you for your letter and enclosures of the 9 May. I think that I have been misquoted and I am sorry if the article has caused offence.

What I expressed was a thought that many of the Trevithick Society's members will be disappointed at not being unable to attend the event. I am sorry that Mrs Tomalin found her visit disappointing and indeed was not able to stop for the ceremony which, of course, was the highlight of the day.

The presence of many Cornish folk—who reverently sang a tribute to 'Captain Dick'—the fine words spoken by the Deputy Mayor of Dartford, Mr Law and Southern's Public Affairs Manager plus the contribution made by Mrs Michell, paid due respect and homage to Richard Trevithick.

We are assured that most of the many hundreds of visitors were delighted with the commemorative event, I am sorry that Mrs Tomlin feels that it was a 'feeble Public Relations exercise'. Immense goodwill was generated with our commuters, visitors, and the school children of the area. Over 900 commemorative tickets were brought to the Hotel, over 1000 children visited the station and were enthralled to step aboard the trains on display. The Deputy Mayor of Dartford and members of the Dartford Society have expressed their appreciation of the event.

The display and exhibition was not large but in the present circumstances British Rail has to keep a tight hold on its purse strings, but I feel that we commemorated the sesquicentenary in a most appropriate way and at the same time proved to the townsfolk of Dartford that BR has a human face.

Yours sincerely,
Richard Marks,

Divisional Public Relations Officer, British Rail (Southern),
Waterloo Station, London SE1 8SE

★ ★ ★

Dear Editor,

Information please

May I appeal through you to members for information on the tin mills at Porthmeor (430371) and Bosigran Cliff (416367).

Members may be interested to know that the ruined engine houses at Carn Galver (421364), the subject of a recent appeal by the National Trust, are now undergoing conservation work.

Yours sincerely,
Bill Newby,

Gonew Viscoe, Lelant Downs, Hayle TR27 6NH
(Cockwells 740337)

★ ★ ★

Dear Editor,

Waterwheels please!

I joined the Society last year because of my interest in waterwheels, and have also recently moved into what was once a working mill. For some time I have been trying to locate a wheel to replace the original one that was removed about 20 years ago.

So far, my efforts have not borne fruit.

I am looking for two sizes of wheel; one approximately 15 ft by 3 ft, the other 10 ft x 2 ft 6 in. My intention is to generate electricity with them, preferably using the original type of overshot wheel and not the modern fibreglass wheels which are available. Can any member help?

Yours sincerely,

M. Holmes,
Tregoose Mill, Ponsanooth, Truro TR3 7EY

★ ★ ★

Dear Editor,

A fallacy

Roy Shambrook's note in TS Newsletter No. 41 (How William Morris made his fortune) perpetuates a fallacy. He says:

A parish constable's wage was
18 shillings (90p) per week . . .

Think what a man could do with eighteen shillings a week in 1844!

Best wishes,

Geo A Newby,
48 Tewit Well Rd, Harrogate, N. Yorks HG2 8JJ

★ ★ ★

Dear Editor,

Spring Waterwheels weekend

Though an account will appear elsewhere in this Newsletter may I, as Programme Co-ordinator, thank Alan Stoyel, on behalf of the Society, for the very special efforts he made in arranging the weekend? On the Friday evening there was an excellent illustrated lecture, so well attended that there were too many people for the room. Through no-one's fault it was not possible to advertise the following day's field trip in advance, so unfortunately there were too few people for the coach! For those who did go it proved a highly instructive day. The variety of mills and wheels seen was calculated to inspire a new enthusiasm among those who had previously ignored the subject.

Alan Stoyel had to travel twice to Cornwall from Oxfordshire, once for the weekend and previously to reconnoitre the trip. Following this he had to get in touch with all the owners and arrange for them to receive us. It was a great pity that more members were not able to take advantage of all the staff work he put in.

Yours sincerely,

John Corin,
Gwel Efan, Church Street, Newlyn, Penzance

★ ★ ★

Dear Editor,

Copper token

Newsletter 41 contains a lot of interesting reading about the engine house at Scotts Pit near Swansea. Reference is made to the old Copperhouse Foundry 50-inch engine, at the Rose and Chiverton lead mine. I have a copper "Token" dated 1811 which my mother gave me, a feature of which is enclosed.

Mother was Cornish but her father was Welsh—a mining blacksmith in the tin mines around Camborne-Redruth. They lived by the old tram road from Portreath to Scorrer at Nancekuke, with coal trams going past their windows.

Enclosed is an example of the coin, a rough rubbing but not without interest.

Yours sincerely,

John Girling,
71 Lyde Road, Yeovil, Somerset

Editor's note: The rubbing is unfortunately not suitable for reproduction. One side of the token bears the words "Rose Copper Company" around the outside and "Token 1811" inside. On the reverse side is an inscription which I cannot read, plus the words "One Penny". Other members who possess Cornish mining tokens might wish to let me know about them.

More on microfilm

Readers who have an enthusiasm for local history may be interested to know that the County Local Studies Library in Clinton Road, Redruth, has just acquired microfilm files of more newspapers. They are *The Royal Cornwall Gazette*, 1811-1951, *The Cornish Post And Mining News* of Camborne, 1889 to 1944, *The St. Austell Star*, 1889 to 1915, and *The Cornish Telegraph* of Penzance, 1851 to 1915. This increases the stock which now includes most of Cornwall's major newspapers.

Those wishing to use the files are advised to telephone Redruth 216760 to reserve a microfilm reader before making a journey to the Library.

Minutes of last year's AGM

MINUTES of the Annual General Meeting of the Society held on 26 September 1982 at the Community Centre, Camborne. APOLOGIES were received from Messrs Lockhart, J Hodge, C Blick, M Satow and J Mosse.

The President, Mr J H Trounson MBE, welcomed the some 60 members present and thanked the Officers of the Society and members of the Council for the work they had done during the past year.

THE MINUTES of the Annual General Meeting held on 25 September 1981, having been circulated in the Newsletter, were approved and signed by the Chairman.

There were no matters arising.

Chairman's Report The Chairman referred to the death during the past year of Mr Frank Booker. He was for a long time a supporter of the Society and never missed attending a meeting. Members stood for a minute in tribute. The Chairman said they had about 360 members and not enough income. He felt it was vital that they should try and increase their membership and gain those who were interested in industrial archaeology. The personal approach was needed and it was up to the individual members to enrol more members and relieve their financial worries. A printed programme for the coming year would soon be available. Mr Tregonning Hooper had twice built up the Society to 300 members by himself, and publicity was needed by each member to help the Society to develop numerically. The Newsletter Editor needed more articles, and contributions from members were welcome.

Finally, the Chairman put on record the thanks of the Society to two of its Officers: the Membership Secretary, Captain Tarrant, whose efforts had brought in about £600 in the last year, and Mr Edmonds who had greatly increased the sale of publications.

Treasurer's Report Mr Trinick had been away during the past year due to his work, and Mr A W Brooks had acted as Deputy Treasurer. To him the Treasurer expressed his thanks for the excellent way he had kept the books. He presented the Report and Accounts and re-emphasised what the Chairman had said that the most important thing was to increase the subscription again. Their total income next year on current membership would be about £2500. He recommended that the subscriptions should remain the same, but that each member should do his utmost to enrol another member. It was proposed by Dr Acworth, seconded by Mr J Brooke and carried that the subscription should remain at £5.50 for an individual and £7.50 for a family of two adults. Captain Tarrant proposed the adoption of the Report and Accounts, seconded by Mr K Brown and carried.

Secretary's Report Mrs Smyth reported on the various meetings that had been held during the year. There had been seven meetings of the Council. Three lectures had been held during the winter months, and in April the first of the Hamilton Jenkin Memorial Lectures took place at the Royal Institution, Truro, when Dr Basil Greenhill, Director of the National Maritime Museum had been the speaker. They had also had a field trip to Morwellham, and Mr Edmonds had lectured on St Ives Consols, followed by a site visit. The Council hoped in future to contribute to the Botallack engine houses preservation appeal. The problem of storage of publications had arisen again. They hoped to prepare a programme of events for the whole of 1983-84 and this would be printed and sent out with the January Newsletter of 1983. They were in frequent touch with the District Councils in connection with the preservation of sites and buildings of historical or special interest. Finally, the Secretary thanked the President, Chairman and members of the Council for their help.

Publication Secretary's Report Mr Edmonds reported that 834 items had been sold and he had despatched the Journal to all paid-up members. All Society ties had also been sold. There was no further progress about heating at the proposed store at Trevenson House, and the matter would become acute as the winter approached.

Membership Secretary's Report Captain Tarrant reported that they had had 340 fully paid-up members at the last Annual General Meeting and his subsequent reminders had raised this figure to 435 by the end of December 1981. The rise in subscriptions had resulted in a temporary fall in membership but the figure was rising again and then stood at 367. He reiterated the Chairman's remarks about the need for increased membership, members preferably paying by Banker's Order which greatly reduced the book work.

Newsletter Editor's Report Mr K Brown reported that so far he had had plenty of copy but that was now diminishing and he would be glad of further articles on whatever subject members felt would be of interest. He would include a full list of publications in the November issue, and thanked all members who had given him their help.

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Recording Committee's Report Mr Newby reported that sites and buildings were disappearing without adequate records having been made. A register of sites now being prepared by the Institute of Cornish Studies from old maps and documents would, next spring, be transferred to the Cornwall Committee for Rescue Archaeology in Truro when it was hoped that members throughout the County would co-operate in helping to bring this register up-to-date. In the meantime he would like to hear now from members willing to be included in a rescue team in case the need suddenly arose to record a site under threat.

Elections 1 **President** The Chairman proposed that Mr Trounson be re-elected. Carried unanimously.

2 **Hon Treasurer** Mr M Trinick was proposed by Mr Jenkin, seconded by Dr Acworth and carried unanimously.

3 **Hon Secretary** Mrs M Smyth was proposed by Mr J Stengelhofen, seconded by Mr B Earl and carried unanimously.

Members of Council The following members were due to retire in rotation: Mr J Hill, Mr D S Jenkin, Captain M Tarrant, Mr M Trinick and Mrs M Smyth. All were willing to stand for re-election with the exception of Mr Hill, and had been nominated by the Council. Messrs J Corin and W Newby had been co-opted during the year, were willing to stand for election and had been nominated by the Council. There were no other nominations.

Dr Acworth proposed, and Mr Trounson seconded that the retiring Council members be re-elected en bloc, with the exception of Mr Hill. Carried. Mr Trounson proposed a vote of thanks to Mr Hill for his past services, which was agreed. The Chairman proposed the election of Messrs Corin and Newby. Agreed.

Accountants The re-election of Messrs Trudgeon, Halling & Co of Bodmin was proposed by Mr L J Bullen, seconded by Mr Gregory and carried.

Mr Bullen proposed that Mr Gordon Richards be elected a Life Member in view of his many years contribution to the Society, and it would be a happy event on his 78th birthday, seconded by Mr Gregory and agreed with acclamation. Mr Richards acknowledged the honour with his thanks.

Votes of thanks Thanks were proposed and agreed to the Chairman, Treasurer and Secretary.

The Chairman thanked Mr Trounson and Mr Bullen for the interesting guided tour they had conducted that afternoon. He also thanked the three ladies who had provided the excellent tea, and he wished Mr Richards a happy birthday on behalf of them all.

There being no further business the Chairman declared the meeting closed and thanked members, many of whom had come long distances, for their attendance.

Date of next meeting 23/24 September 1983.

Nominations for Election 1983/84

Elections of the following Officers will take place at the A G M:

- a) President
- b) Hon Treasurer, (retiring)
- c) Hon Secretary, (retiring)

The following members retire in rotation from the Council: Messrs J Brooke, A W Brooks, C Carter, R J Law, J Stengelhofen and J H Trounson. With the exception of Mr J Brooke, all are willing to stand for re-election.

Nominations must reach the Hon Secretary, Mrs M Smyth, together with the written consent of the nominee not later than 12 September, after which date no nominations can be considered.

To: Miss E M Rule, 3 Treswithian Downs,
Camborne, Cornwall, TR14 0BX

I shall require Tea(s) at the Annual General Meeting on Saturday, 24 September, 1983, and enclose Cheque/PO for (i e £1.00 per head)

Signed

Name

Address

Note:—Closing date for receipt of slips 12 September, 1983