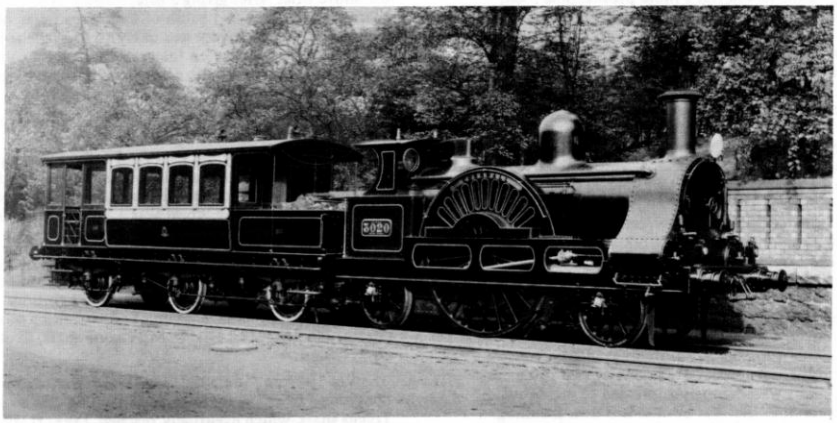
THE TREVITHICK SOCIETY

NEWSLETTER No. 32 FEBRUARY 1981



FRANCIS TREVITHICK AT CREWE: his celebrated locomotive "Cornwall" as rebuilt for use with the CME's inspection saloon (see page 5).

Officers of the Society

Chairman:
Rodney Law B.Sc., A.C.G.I.

Secretary:
Mrs. Mary Smyth,
"Coombe Cottage",
Callington,
Cornwall. PL17 7HJ
Tel: Callington (057-93) 3311

Membership Secretary:
Capt. Michael Tarrant
8 Crossfield Avenue,
Cowes,
Isle of Wight. PO31 8HB
Tel: Cowes (0983) 293274

Treasurer:
Marcus Trinick

Newsletter editor
Kenneth Brown,
5 Chester Court,
Chester Road,
Northwood,
Middlesex. HA6 1BQ
Tel: Northwood (092-74) 29575

Publications Secretary:
Eric Edmonds,
"Newlands",
Tarrandean Lane,
Perranwell Station,
Truro,
Cornwall.
Tel: Truro (0872) 863931

Programme Secretary:
Miss E.M. Rule

In this issue

SUBSCRIPTIONS

Members are reminded that all subscriptions became due on 1st January. It would be appreciated if those who have not yet sent them to the Membership Secretary Mike Tarrant (address above) would do so without delay. The rates are:

Single membership £3
Family membership £4
Overseas membership £4
Corporate membership £8.50

At a recent Council Meeting it was resolved that "if a subscription for the current year remains unpaid, no further newsletters will be sent after the May issue (that is the second issue of the year) until all arrears are paid." A statement of arrears, where appropriate, is being sent to individual members with this Newsletter.

TREVITHICK SOCIETY JOURNAL No. 8

A sub-committee headed by the Chairman is dealing with material for the next issue of the Journal, pending the appointment of a new Editor. As a temporary measure, all material or other matters relating to the Journal should be sent to the Secretary, Mary Smythe.

DATES FOR YOUR DIARY

27th March 1981	Brains Trust on "Cornish Engineering History". The panel will include Jack Trounson, Sam Sweet and Gordon Richards. Lecture Theatre, ECC Laboratories, Pentewan Road, St. Austell at 7.30 p.m.
8th May 1981	" Establishing an industrial museum" by Peter Young of Wendron Forge. The Restaurant, Wendron Forge Museum, nr. Helston at 7.30 p.m.

It is hoped that many members will support these two events, as the future programme depends very much on the response.

26th September 1981	Annual General Meeting - programme details for the week-end will be given later.

Would any member, preferably in Cornwall, able to provide transcribing facilities from tapes of previous Brains Trust please contact the Secretary, Mary Smythe.

EDITORIAL

With this issue of the newsletter, a change has been made to the type face which I hope members will find acceptable. It will be possible to fit more matter on to each page, affording economies in both paper and postage, two prime cost elements in production and distribution. It will also give the newsletter a more professional look, in keeping with the Society which it serves.

A new production timetable has now been agreed with our printers following some delays in the printing of the November issue. The due publication dates will in future be 15th February, 15 May, 15 August and 15 November. Material sent to me for inclusion in any issue must be in my hands by the first day of the month preceding publication; for example. 1 April is the deadline for receipt of copy for the May issue, and so on.

This issue has suffered a few 'teething problems' with the new format, and a postal workers' dispute in London delayed transmission of the proofs. Some items have had to be held over until the May issue.

It is pleasing to record that our Publications Secretary enjoyed a record demand for the Society's publications, following the list of items available included with the last newsletter. In one or two instances, however, requests were wrongly addressed to me. Would members please note that Mr. Edmonds is now handling all publications sales including back numbers of the Journal and the Newsletter, at the address given on the front page.

I understand that Mr. Frank Brooker, for many years a Member of Council of the Society, is leaving Cornwall to live in Essex.

In 1976 when the Cornish Engines Preservation Society and the Cornish Waterwheels Preservation Society joined forces to form the Trevithick Society, a large collection of drawings, mainly of Cornish Engines and belonging to the former CEPS, were deposited in the County Record Office, On occasions I have found them wrongly or inadequately described and I am now undertaking the task of checking them all against the CRO accession list, for the benefit of future researchers.

My thanks to the following for their letters: Justin Brooke, Marazion; Colin Edwards, CRO Truro; L. Ince, Birmingham; Kenneth Isham, St. Austell; W.H Pascoe, Exmouth; Colin Short, Lanchester; Paul Stephens, Devoran; John Wellington, Plympton; and Frank Woodall, Shipley.

O'okiep engines

Following the publication in the last newsletter of photographs of the two Cornish engines at the O'okiep workings of the former Cape Copper Company in Namaqualand, South Africa, several members have assisted by sending me information. I am particularly grateful to Mr. John Kitney of Brockenhurst for lending me an old album with two views of the mine taken about 1896 - 8. It seems the photographer climbed a stack and so the result is two panoramic views showing parts of the smelter, the open pit and the little 30-inch Cornish engine (now dismantled) in its house. I am also grateful to Mr. Eric Edmonds for locating some pertinent engine references in County Record Office, Truro; to Mr. Tony Brooks of the Carn Brea Mining Society for a paper published by the Institution of Mining and Metallurgy in 1900 giving details of the geology and methods of working at O'okiep, and to Mr. Rodney Law for a paper giving details of the pumps worked by the Harvey 50-inch engine. The 30-inch engine went out from England in 1874, probably secondhand, but its maker and earlier history are still elusive.

FURTHER OBSERVATIONS ON THE MINES OF CAMBORNE – REDRUTH

A gathering of nearly fifty members including several from beyond the Tamar assembled in the Ambulance Hall, Redruth, on the evening of 21st November to hear Jack Trounson give a typically erudite talk under the above title. After giving a brief outline of the mineral-bearing lodes north and south of Carn Brea ridge, he said that an exciting discovery was likely to be made soon by South Crofty miners when they reach the end of the Tolgus Tunnel, idle for the past 60 years beneath the western outskirts of Redruth.

The Tolgus Tunnel was an eastward drive from the old East Pool mine at the 252fm level and was started about 1920 by the East Pool and Agar company, acting on the advice of Malcolm McLaren. He postulated that the celebrated Rogers lode, which had been the mine's mainstay during World War 1, would reappear and might even continue beyond Redruth.

After going about half a mile, the drive encountered a large mass of tin and tungsten but also a lot of water. With a slump in the price of tin in February 1921 followed by the great run of ground three months later which destroyed East Pool's engine shaft, exploration ceased.

In 1923 an ill-fated attempt was made to explore the ground from the other direction by sinking a new Tolgus shaft, which eventually reached 2,000 ft. But again difficulties were encountered, first due to very hard rock and then by the extreme temperatures encountered. A drive westward back towards the granite reached 1200 ft, roughly beneath the roundabout at the end of the old Redruth by-pass, before being abandoned. South Crofty finally reached the west end of the Tolgus tunnel in 1976 and has since been rehabilitating the old workings, in preparation for further development.

The run of ground at East Pool in May 1921, Mr. Trounson described with characteristic flavour. In the last few months of working, with the mine going poor, pillars of ground left in the vicinity of the two shafts had unwisely been worked. A few stones started falling through the engine shaft then suddenly the ground around it went away on such a huge scale that for a fortnight afterwards people out there were frantically trying to sell their property, fearing that the surface might give way!

A terrified man in the pump station at the 249fm level was rescued by men going down in a small cage and climbing the last part of the way by driving nails into the pitch-pine runners. It was fortunate that due to the temporary closure, no miners were working down below at the time.

At first the East Pool and Agar company thought they could rebuild the shaft. They carted spoil from nearby dumps and tipped it wholesale down the engine shaft to stabilise the edges of the cavity, which was something like 70ft wide and 200ft deep. This would be followed by driving steel piles and concreting the sides of the shaft. But they soon decided that the job would be hopeless and this led to the decision to sink Taylor's shaft on the other side of the main road. The beam winding engine on the hoisting shaft in the abandoned section is preserved today, together with the pumping engine on Taylor's shaft.

Space precludes a more complete account of Mr. Trounson's talk, which covered all the mines in the area to the north of the Carn Brea ridge, also Wheal Uny. He instanced South Crofty as a shining example of a mine which for many years worked in a small way on copper after North Crofty had been hived off in 1854, but which had, by a continuous programme of cross-cutting and development, grown into an important tin mine, still flourishing today. From shallow workings in front of

the main office, the mine has grown to take in all the neighbouring setts and now extends for a distance of five miles, from the Barncoose Valley in the east to the disused Helston branch railway in the west. Now down to 400 fathoms, it has become the third deepest mine in Cornwall. Mr. Trounson began his own mining career at South Crofty in 1923 shortly after the sinking of Cooks' shaft. This is now the mine's main drawing shaft, distinguished by the very tall headgear which dominates the Tuckingmill Valley.

At the conclusion of a talk lasting 1¾ hours, the chairman called on Mr. Justin Brooke to propose a vote of thanks to Mr. Trounson, which drew a rousing applause.

OTHER SOCIETY PUBLICATIONS

Since the last Newsletter there has been a run on publications, and some stocks have been almost sold out. This includes An Account of Wrecks by John Bray. The same applies to postcards. Some are almost sold out and when it is not possible to sell them in sets they will be sold at the price of 3p each, black & white, and 6p for the Pen-y-Darren locomotive. The set is of eight, as listed in the last Newsletter on page 13, not nine.

Members are reminded that all applications for the Society's publications, accompanied by the appropriate remittance as listed in the November 1980 Newsletter, should be addressed to the Publications Secretary, Mr. Edmonds.

JOHANNESBURG'S OUTSTANDING MINING MUSEUM

The opening of the new Gold Mine Museum near Johannesburg by the State President, Mr. Marais Viljoen on June 5 last year was an important milestone for the South African gold mining industry. It also marked the culmination of the endeavours of numerous people; from the Chamber of Mines – which undertook the project – from the mining houses and, not least, from the many mining companies who contributed to its overall success. Newsletter editor Kenneth Brown has been there.

Johannesburg's new gold mining museum based on No. 14 shaft at Crown Mines must be one of the outstanding museum projects in the world. Though still in its infancy - it had been open less than two months when I paid my first visit in July 1980 - future plans are ambitious. "This museum is a proud memorial to the achievements of our pioneers; we look forward to creating, on these solid foundations, the foremost institution of its kind in the world" says Dennis Etheredge, president of the Chamber of Mines of South Africa. And with such promising beginnings, there is little doubt that they will.

To visit this splendid museum, as I did three times, is to realise with a jolt what opportunities have been missed in Cornwall. Tregurtha Downs could never hope to approach it! Mining of a variety of minerals – gold, diamonds, copper and iron predominate – has never been more active in South Africa than it is now. True, Crown Mines have been well and truly worked, and the levels all round and below the 220m level to which visitors descend are on a care-and-maintenance basis pending a rise in the gold price. But having given over the shaft and its surface buildings to the Museum will in no way inhibit future working. Gold is still the lifeblood of Johannesburg, South Africa's prime commercial centre, just as it has been ever since the famous gold rush of 1882.

The concept is that the museum should be both a living monument to the industry's pioneers and also provide a major tourist and educational attraction. It will become a permanent showcase for the gold mining industry and a centre of technical and academic interest.

The secret of the new museum is co-operation – a massive injection of cash from the Chamber of Mines, probably the most influential and progressive mine owners' association in the world, coupled with the generosity of a host of mining companies and those who supply mining equipment. It is far enough out of Johannesburg – a £2 taxi ride to the south – to have plenty of space for future development.

If the project can be criticised at all it is because the buildings are still too new-looking because of all the 'tarting up' that has been done. But they will mellow with time. They include bungalows with verandahs in typical 'gold rush' style, using the inevitable corrugated sheet steel cladding like the mine buildings proper.

The idea of creating a gold mining museum had been raised at various times but it was the donation by Rand Mines Properties of a section of Crown Mines – 25 acres in all containing the No. 14 shaft complete with headgear, winder house and other buildings – which gave critical impetus to the project.

The complex contains the shaft itself with a change house for visitors, the original headgear, offices, workshops, and main and sinking winder houses, still containing original equipment. I was taken round by Mr. Parry, deputising for the chief engineer who was on leave, and I am greatly indebted to him for allowing me 'behind the scenes'.

In the geology exhibition, visitors may see a display of rock and reef samples, borehole cores and several pieces of old prospecting equipment. Next to this is a model of the Witwatersrand basin, created from 1000 aerial photographs and shows the basin into which the Witwatersrand sediments containing gold-bearing layers were poured by water action. In the background, against the north wall of the building, is a geological section of the area, illustrating the various beds below the surface.

There is a working scale model of the headgear, winder and reduction plant on a typical gold mine of the period 1920 – 1940. This unique model constructed on a cooperative basis, various sections being made at different mine workshops, was completed in the 1940s and was thereafter exhibited for many years at the Rand Show. Now it has a permanent home.

The smelthouse includes metallurgical exhibits and an electric furnace used for the gold pour, an operation itself worth going many miles to see. A bar containing 400 ounces of gold is poured at specified times. The gold is stored in a strong room, the door of which was originally used for the Rand Refinery, and dates back to 1920. The gold-pour ritual includes letting visitors handle the newly-poured bar – with an armed policeman standing close by!

The winder house contains the original electrically operated double bi-cylindro conical drum winder, Vickers built and installed in 1925. The winder which was still in perfect working order when the property was donated to the museum, has been overhauled and is used to lower and raise visitors in No. 14 Shaft.

The sinking winder, like the main winder, is an impressive machine. It is steam driven and was built by Tangye in Birmingham in 1915. It was used to sink No. 14 Shaft to its full 3,000ft depth (nearly 1000m),

and has horizontal cylinders with double spur gearing to the winding drum. Today it runs on compressed air.

Close to it, foundations are going in for a huge twin-tandem compound friction winder by Allis-Chalmers of Milwaukee. This also will be run on air to show visitors how a steam winding engine works. It uses the Whiting system with adjustable tail pulley and friction drive pulleys coupled by cranks and connecting rods. Mr. Parry kindly took me to City Deep a few miles away, now derelict, where the engine was awaiting removal. It used to pull from a depth of 4,030ft. It was too dark to take photographs inside the house which used to contain two such engines and a large capstan; the headgear boasts no less than six sheaves!

Other exhibits at the museum include a black-smith's workshop, a rigger's shop and a drill sharpening shop, displays showing materials used underground, which are on the "bank" – concreted area in the vicinity of the headgear – and finally the Haggie Rand exhibit, showing how wire ropes are made, how they have developed over the years and including an old rope-making machine. This exhibit is housed in a replica of a City Deep work-shop, circa 1924.

Highlight of the visit is, of course, the underground tour. It is a real eye-opener to a visitor used to Cornwall due to the clinical cleanliness, lack of water, the bright illumination and the concrete floor in the main level. The huge stopes into which visitors are taken reveals where a 4ft thick seam dipping at some 45 degrees has been worked. Support is provided by a combination of straight props and 'matchbox' packs of eucalyptus wood which never rots.

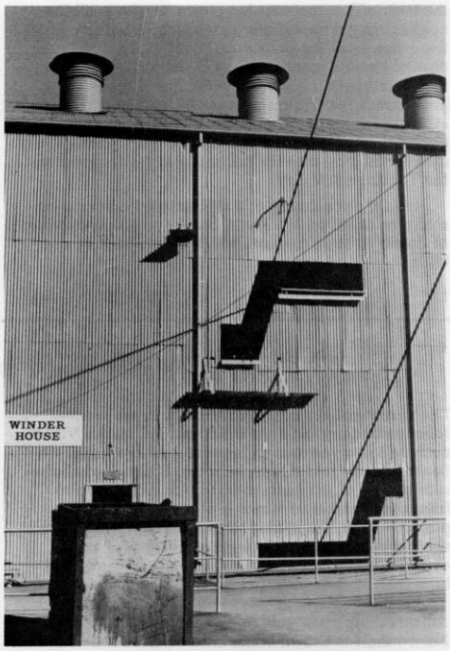
A 1.3 kilometre-long 2ft gauge railway runs round the perimeter of the museum site and visitors may take a ride in old-style passenger coaches, pulled by one or two steam locomotives, both of which were in use on the mines, and which have been restored to their pristine glory.

The older of the two side tank locomotives, christened "Taffy" in memory of the Welsh miners who had an important impact on Crown Mines in the early years, was originally built for the Cape Government Railways in 1902 by Manning, Ward of Leeds. After serving in the Cape for some years, this loco was sold to West Rand Consolidated Mines.

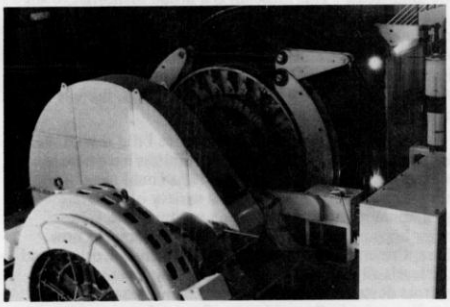
The other locomotive was built specially for Rustenburg Platinum Mines by W.G. Bagnall Limited's Castle Engine Works in Stafford, England in 1948. It is a 0-4-2 type, and was used to haul timber on the Rustenburg Section of the mine. This loco has been named "Jack", after the many miners from Cornwall who came to seek their fortunes on the Rand. I rode on the footplate of both locomotives, and was intrigued by the reversing lever on Jack which works the opposite way to normal, that is, it is pushed forward for reversing and vice versa! No-one could tell me how this curious state of affairs came about, but the two drivers have to be sure and remember which engine they are on!

Another feature of Johannesburg is a collection of road locomotives displayed in Pioneer Park and two Aveling & Porter 10 ton steamrollers of 1910, one of which used to belong to Crown Mines, have been loaned to the Museum. Strangely in such a steam-conscious country, I only saw one steam road engine in "steamable" condition; the two rollers and a Sentinel wagon standing near them would need some work done before they could run again. Some fine traction wagons on iron wheels much used on the mines are also displayed; these really make an English enthusiast's mouth water!

Every museum must have its graveyard of bits and pieces and Crown Mines is no exception. It was a



Above: Winder House at Crown Mines Gold Mine Museum, Johannesburg, showing the angled rope slots to suit the conical drum.



Below: The electric winder was built by Vickers in 1925 and is used to raise and lower visitors to the 220 m level.

thrill to find a cast mortar box with Harvey & Co's name on it and the date 1886. Harvey set up an office in Johannesburg soon after the gold rush expecting large orders for pumping engines, but because the ground is so dry they were not forthcoming. Three-throw under-ground pump sets by Glenfield & Kennedy and Fraser & Chalmers and small hoists by Holman Brothers and other firms show which British firms were well represented in South Africa. Yates & Thom also supplied a number of distinctive inverted vertical compound winding engines to South Africa; Crown Mines has not got one though I heard of one derelict at Brakpan not far away. There is one on display at the famous "Big Hole" diamond mine museum at Kimberley – about which I will say more in a future article.

FRANCIS TREVITHICK at CREWE

by Len Belk

The author believes that Francis Trevithick, third son of the famous Richard, is given insufficient credit for his work as Locomotive Superintendent at Crewe during the period 1843 - 57. In particular, the adoption of the outside cylinders in the "Crewe Type" of locomotive was wrongly ascribed to Alexander Allen for many years. This article describes Trevithick's work.

Richard Trevithick's third son Francis (1812 - 77) became Locomotive Superintendent of the Grand Junction Railway works at Edge Hill, Liverpool in 1841, moving there from Birmingham where he had until then been Resident Civil Engineer. In 1843 he supervised the transfer to the new works and town of Crewe.

His work there until retirement in 1857 received scant credit from all but one locomotive historian for over 100 years thereafter. Recent research into the origin and history of the Crewe Type of locomotive has revealed that he should be remembered for more successful achievements than the production of the experimental locomotive "Cornwall", too often the sole subject of reference to his name.

In character, he has been described as a gentle, self-effacing man, affectionately nicknamed "Trevvy" and highly regarded by the men of Crewe. (A proposal to scrap "Cornwall" around 1900 almost caused a strike there!) He appears to have been a modest, easy going man with a worthy regard for human nature, less vigorous than his father perhaps but sharing his lack of personal greed and a prior concern with the task in hand.

In the fierce enterprise and rivalry of those days such quietness of character was not always appreciated. The powerful London & North Western Railway, formed by amalgamations in 1846, had as a prominent director Richard Moon who became Chairman in 1861 and was later knighted. This autocratic and often merciless dictator heavily criticised Francis in 1856, along with other officers. They included William Booth, famed for his leading part in the historic Liverpool & Manchester Railway and for several engineering advances still in use today.

No doubt Moon preferred his own minions, as those familiar with railway history will know. The subsequent growth of the LNWR in power and Crewe to the lead in engineering production is a story with little instance of human kindness beyond railway company paternalism in the town. Yet there was always a good spirit in Crewe, very likely fostered by Francis in those early days. The kindliness which the writer experienced in the 1930s was perhaps an inheritance from those beginnings.

Town and Works Affairs

The earliest reference to Francis Trevithick in Crewe matter concerns Joseph Locke's recommendation for his appointment as Locomotive Superintendent (in later years Chief Mechanical Engineer). Locke, rather than George Stephenson, had engineered the GJR, the "first trunk line" which connected the Liverpool & Manchester with the London & Birmingham, and later Chester and North Wales via Crewe. He also led in the establishment of Crewe Works and town, the latter laid out with a regard for human comfort unusual in those days. The social and economic history of Crewe is well covered in Doctor Chaloner's valuable work (Manchester University Press, 1950). It contains several references to Trevithick's activities in town and works matters, some refuting Moon's criticism.

In 1852 Trevithick reported that 827 men were in his employ. Five years later, a survey at the end of

Francis Trevithick.

Trevithick's term of office revealed that the works stood amongst the most up-to-date establishments in Britain. Kelly's Directory of 1857 describes a well-equipped, well laid out works of high capability, up to the ever increasing demands of traffic.

Up to that time, Crewe was almost purely a locomotive building establishment, not then so prominent in operational functions. Trevithick's practice was to keep as few locomotives there as possible, sending them out to places like Rugby, Chester and Holyhead. After 1857 a "leviathan" steam shed was built, to cater for the needs of a junction growing to great importance in traffic operation.

Removal from Liverpool had deprived men of educational and recreational facilities, although Locke had catered well for their children and for medical and religious matters. Tardily, the railway company compensated for this by establishing a library and reading room in 1844. After a good deal of friction had been eliminated, undoubtedly with Trevithick's aid, this developed into the Crewe Mechanics Institute late in 1845. Francis Trevithick became the first President, holding this office until 1858. This connection with the railway's senior officials thereafter had an important effect on the history of education in Crewe.

The Mechanics Institute's income was progressively enhanced by the introduction of a premium payment for apprentices other than the sons of workmen, from 1846 when Trevithick handed over the first £15 to its funds. This step was at the bequest of the directors, the practice lasting until 1930.

The Crewe Type

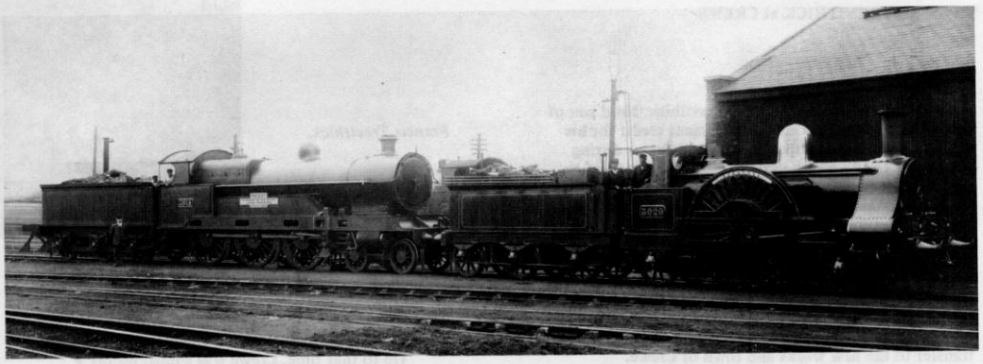
The outstanding development in Trevithick's time at Crewe was the production of a robust and reliable range of locomotives of substantially better construction and performance than the early GJR stock, which had come from private builders. The earlier locomotives all had inside cylinders necessitating two-throw crank axles which, due to the limited manufacturing techniques of the time, were liable to failure. This defect together with flimsy framing resulted in many engines awaiting repair, reaching a crisis by 1839.

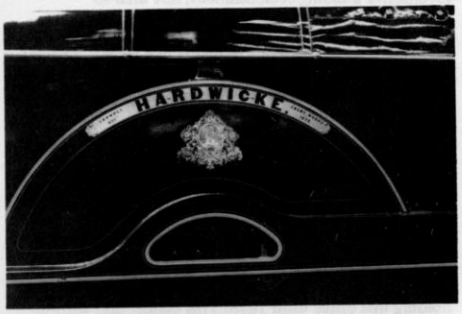
Locke, as engineer-in-chief, was instructed by the directors to reorganise the locomotive department so in January 1840 he appointed William Buddicombe (1812 - 87) as Locomotive Superintendent. Buddicombe had proved an able assistant in construction of one of Locke's other railway projects.

The ensuing train of events is one about which a major misconception occurred. Design of the outside-cylinder Crewe Type has been falsely credited by generations of railway historians to Alexander Allan (1809 - 91), locomotive foreman from 1840 to 1853.

Correction of this blunder did not occur until 1971, when after many year's study of records, drawings and muniments in official and private hands, D.H. Stuart and Brian Reed published the intentionally named work "The Crewe Type". (Loco Profile No. 15, Profile Publications Ltd., Windor.)

This account gives in fully authenticated detail





Above: "Cornwall" coupled to the then new War Memorial Claughton class 4-6-0 "Patriot" after the run in 1920 described in the article.
(Photos page 1, page 5 and above, courtesy National Railway Museum, York).

Left: Trevithick-style nameplate as fitted to the preserved 2-4-0 "Hardwicke" of 1873.

positive proof that Allan's claim to have originated the design was false. This he had put forward in a letter to the "Crewe Guardian" of 17/10/1882, reprinted in "The Engineer" of 25/5/1883 – 40 years afterwards when all concerned except he and Buddicombe had died. In the author's words, his letter contained "inaccuracies and twisted statements", which they evidence.

The only earlier supporter of Allan was D.K. Clark, to whom great favours were shown prior to the publication in 1855 of his highly regarded work "Railway Machinery". Clarke acknowledges this aid from Allan who was by then on the Scottish Central Railway, and although mentioning only the outside cylinders in his text, infers the whole design to Allan in his plates.

Buddicombe left the GJR in September 1841, taking his ideas for improvement to Locke's Paris & Rouen Railway where he produced numerous similar, if less robust, types so successfully that some lasted until this century. Francis Trevithick replaced him from September 1841, with Allan subordinate as locomotive foreman. By that time only a few attempted rebuilds of the unsatisfactory engines had been carried out, with no great success.

Possibly the outside cylinders (no crank axle) were suggested by Allan, having had some experience of them in earlier employment. But Buddicombe had proposed a more drastic scheme involving not only straight axles but a double frame of particularly robust construction. Both frames held the cylinders securely, extended the full length of the engine, had driving wheel bearings on the inner and heavier plates, had carrying wheel axleboxes on the outer and ample beams and were held together by cross stretchers, as eventually produced at Crewe.

Trevithick took over the first completely Crewe Type construction, it is possible that Allan was allowed more say under him than under the "imperious", Buddicombe, but among later historians only S.S. Scott insisted that the responsibility for the design of the Crewe-built Crewe Type was Trevithick's. He was right; but the basic design had been evolved technically by Buddicombe at Edge Hill, and the responsibility for it taken over by Locke as Trevithick himself verified in a letter written to C.E. Stewart in 1857.

In this locomotive the boiler was slung below the driving axle and the driving wheels were no less than 8ft 6in diameter. Trevithick stated that Cornwall was "built to refute a dogma of broad-gauge advocates that the narrow-gauge had reached the limit of speed because the driving wheels could not be safely increased in diameter".

It was thought that greatly increasing the size of boilers and driving wheels would result in the centre of gravity being raised to a dangerous limit. Varous ideas for lowering the boiler centre-line were proposed, some quite fantastic. The most successful was Crampton's which consisted of placing the single driving-axle behind the firebox, but his patent of 1842 also detailed a 6-wheeled engine with the boiler slung below the driving-axle.

So Cornwall's arrangement was not entirely Trevithick's idea, and it did have some troublesome features. It was the only locomotive of that design produced in Britain and, like the Crampton, hard on the track.

Modifications were made, but the engine saw little service until rebuilt by Trevithick's successor John Ramsbottom in 1858 and again by his successor, the famous F.W. Webb. In this form it became a conventional Crewe Type but with a later type of boiler, and gave good service for many years. The story of

Cornwall attaining 117 mph down Madeley Bank in Cheshire is no doubt fiction, but with such huge driving wheels extremely fast runs were no rarity and speeds near 90 must have been attained.

One notable occasion - fortunately photographed - was in 1920. Cornwall's final regular duty was hauling the chief mechanical engineer's private saloon. Bowen Cooke had called at Euston (see footnote 2) and for the return to Crewe the driver was instructed to pilot the newly-built LNWR War Memorial engine "Patriot" on the leading train of the day, the 1.15 p.m. Corridor to Glasgow. Thus her last express duty was in style!

As preserved today, she has the features of two notable engineers; Trevithick's beautiful 8ft 6in driving wheels, a modified form of the Crewe Type framing and upper works of Webb's standard outline. For some reason excluded from the National Museum at York, she lies somewhere in Crewe awaiting provision of a plinth in the Market Square and - it is feared - the attention of vandals.

Detail Advances

Throughout Francis Trevithick's period as Locomotive Superintendent, detail advances were made which are rarely credited to him. Records exist of the following:

(1) An elongated wheelbase on 2-4-0 locomotives, attaining steadier riding, was reported by Trevithick to have been tried successfully in January 1849.

(2) Rectangular section connecting rods replaced circular section in the 1850s, subsequently becoming universal practice.

(3) Adjustable connecting and coupling rods. Easily adjustable over sufficient range not only to take up wear but to allow for inevitable dimensional variations, also achieving interchangeability between locomotives.

(4) Balance weights were added to the driving wheels.

(5) Loco stock records were conscientiously kept by Trevithick. They reveal that despite the much publicised official claim, the Crewe Type engine "Columbine" now preserved at York was not the first locomotive built at Crewe.

(6) Costs were also detailed by Trevithick. An 1851 engine was recorded as £1270 plus £260 for the tender, an indication of economical manufacture and good housekeeping.

(7) Nameplates. The distinctive LNWR style nameplate originated under Trevithick in 1851, remaining standard until 1921. Currently, preserved examples fetch three-figure sums.

(8) An equilibrium slide-valve, balanced to reduce wear, was tried out in 1856.

(9) 2-4-0 side-tank engines started to be turned out in 1856. Others were converted from tender goods engines, more than 100 giving good service throughout the line for many years.

(10) The castellated chimny usually ascribed to Trevithick's successor Ramsbottom appeared in 1857 and was fitted to new types until 1871. Probably ornamental in the Victorian tradition; any possible ideas for smoke reduction are not on record.

(11) Higher boiler pressures. An increase to 100 psi took place under Francis but he turned down a suggestion for enhancing the power of existing types by going up to 120, probably wisely.

(12) Tender frame standardisation. Trevithick's wooden-framed six-wheel tender first appeared on Cornwall in 1847 and the base design was perpetuated as standard on all LNWR locomotives from 1850 until 1904. Built on a frame of massive wooden baulks, it was considered safer than a steel frame by absorbing shock in the event of end-on collision.

The Crewe Tradition

The well-known authority O.S. Nock in his excellent book "North Western" (Ian Allan, 1968) gave some prominence to Sir Richard Moon's unkindly criticisms. But in his "Premier Line" of 1952 - a detailed story of LNWR locomotives (Ian Allan), he wrote:

"But in those early days, under Trevithick and Allan, the traditions of Crewe works were well and truly inaugurated; they were developed and sustained throughout the history of the London & North Western Railway; and although standardisation, precision machining methods, and the practice of making parts interchangeable between many classes of engine were adopted at an early date, the quality of individual workmanship was always high."

Allan was a capable man and played his part. Before leaving the LNWR under a cloud in 1853 his behaviour had for long given Francis a troublesome time and he is now somewhat discredited. But there is no doubt that Richard Trevithick's third son has remained for too long inadequately appreciated and deserves greater recognition for his quiet dilligence in locomotive - and human - affairs.

Footnote 1. In searching many books and other records, the writer noted how often the name Trevithick appears until well into this century. The details hereunder may be of interest:

- Trevithick. Designed an 0-6-0 loco 1873 - 4 for Cornwall Mineral Railways for use in pairs back-to-back. An alternative to the articulated principle (Mallet, Garratt & Fairlie types) for ample power with flexible wheelbase. First used India 1855.

- F.H. Trevithick. Classic experiments in feed-water heating, Egyptian State Railways, 1901 onwards.

- A.R. Trevithick. Works Manager at Crewe 1903 - 10, in the heyday of notable developments there.

- A Trevithick. Proposed a boiler design with tubular firebox and superheater combined, 1908, when water-tube boilers and superheating were receiving attention.

The small and probably incomplete list does indicate that for over a century Trevithicks were busy in the locomotive world.

Footnote 2. Regarding the occasion of the Cornwall-Patriot double-heading, a few words about Mr. Bowen Cooke's reasons for travelling to Euston on 20th July 1920 might be of interest. His exertions during the 1914 - 18 war impaired his health, and on that day he travelled from Crewe in his private saloon, hauled by the famous Cornwall, for examination by a specialist. Ordered to rest for six months, he journeyed to Falmouth next day instead of returning to Crewe.

He loved Cornwall, its seas, and sailing his yacht "Condor" on which his family rigged up for him a means of lying in bed under cover. By the autumn he was well enough to go to St. Mawes, and later for a sail, but his recovery was short-lived and he died on 18th October.

He was buried in the beautiful churchyard of St. Just-in-Roseland. There, rising from the flowers and shrubs, is the great Celtic Cross in granite, a memorial raised by men of the LNWR as a mark of esteem, as the inscription indicates. For years thereafter, the sexton had many enquiries for directions to Bowen Cooke's grave. His reply was always "Crewe or Swindon? They're always Crewe or Swindon people who come asking for him!"

SURVIVING CORNISH CYCLE PUMPING ENGINES

IN CORNWALL

Name of Engine	Location	Maker and Date	History	Status
1) Taylor's 90-inch.	East Pool & Agar Mine, Pool, Nr. Redruth. (now property of the National Trust).	Harvey & Co., Hayle. 1892 (engineer Nicholas Trestrail).	Worked originally at Highburrow East Shaft, Carn Brea Mine. Ceased work at East Pool 1953.	Preserved static, on view to the public April - October.
2) Robinson's 80-inch.	South Crofty Mine, Pool, Nr. Redruth. (now property of the National Trust).	Sandys, Vivian & Co., Hayle, 1854 (engineer Sam Grose).	Worked originally at Wheal Alfred, Hayle; then Crenver and Wheal Abraham, Crowan; then Tregurtha Downs, Marazion, before moving to South Crofty in 1903. Stopped 1956.	Preserved static, may be visited by special arrangement.
3) Parkandillick 50-inch	Parkandillick Clayworks, English China Clays, St. Austell.	Sandys, Vivian & Co., Hayle, 1852 (engineer Thomas James).	Worked originally at Wheal Kitty, St. Agnes. Ceased work mid-1950s.	Preserved, workable under low-pressure air. May be visited by special arrangement.
4) Goonvean	Goonvean Clayworks, Goonvean & Restowrack China Clay Co., St. Austell.	Harvey & Co. 1863	Worked originally at Penhalls Mine, then Trevaunance then Gooninnis, all at St. Agnes. Ceased work mid-1950s.	Derelict, not accessible.
5) Greensplat 30-inch.	The Poldark Mining Co. Wendron Forge Museum, Nr. Helston.	Unknown.	Worked for many years at Greensplat China Clay works, Nr. St. Austell until about 1960.	Preserved in the open, on view to the public April - October.
6) Restowrack 22-inch (rotary engine).	Tolgus Tin Museum (under same ownership as 5), Nr. Redruth.	West & Sons, St. Blazey, about 1850.	Worked for many years at Restowrack China Clay works driving pumps via gearing and 'flat rods', Later preserved at Holman's Museum, Camborne.	Awaiting re-erection in new house, not accessible.

ELSEWHERE IN UK

7) Kew Bridge 100-inch.	Kew Bridge Pumping Station, Kew Bridge Road, Brentford (outskirts of London).	Harvey & Co., Hayle, 1869.	Put to work 1871, stopped 1945, worked occasionally until 1958.	Preserved static, on view to the public at weekends and Bank Holidays.
8) Kew Bridge 90-inch.	As above.	Sandys, Carne & Vivian, Hayle, 1845. (engineer Thos. Wicksteed).	Put to work 1846, stopped 1943. Re-started in preserv-ation 1976.	Preserved and steamed regularly for the public at weekends and Bank Holidays.
9) Kew Bridge 'West Cornish' 64-inch.	As above	Boulton & Watt, Birmingham, 1820. Conv: to Cornish cycle 1848.	Put to work at Chelsea Waterworks 1820, moved to Kew 1838 - 9 stopped 1943. Re-started in preservation 1975.	As above.
10) Kew Bridge 70-inch Bull.	As above	Harvey & Co., Hayle, 1856.	Put to work 1859 stopped 1943.	As above.
11) Kew Bridge Maudslay 65-inch.	As above	Maudslay Sons & Field, Lambeth, 1837. Conv: to Cornish cycle 1847.	Put to work 1838, stopped 1943 .	As above

Name of Engine	Location	Maker and Date	History	Status
12) Carpalla 40-inch.	Science Museum. London SW7.	Harvey & Co., Hayle, 1863.	Worked originally at West Polbreen Mine, later West Wheal Kitty, both at St. Agnes; then to Carpalla Clayworks, Nr. St. Austell. To Science Museum 1952.	Stored in a dismantled state at Hayes, not accessible.
13) Severn Tunnel 50-inch Bull.	As above.	Harvey & Co., Hayle, 1877.	Worked at Severn Tunnel Pumping Station, Sudbrook, until about 1960.	As above.
14) Severn Tunnel 50-inch Bull.	Museum of Wales, Cardiff.	As above.	As above	Stored in a dismantled state, not accessible.
15) Crofton No. 1.	Crofton Pumping Station, Kennet and Avon Canal, Great Bedwyn, Wiltshire.	Boulton & Watt 1812, rebuilt to Cornish cycle by Harvey & Co., 1845.	Has always worked on its present site. Stopped 1958, re-started in preservation c. 1970.	Preserved and steamed for the public on occasional weekends.
16) Crofton No. 2	As above	Harvey & Co., Hayle, 1846.	Originally Sims combined cylinder, converted to single cylinder by W. Rollinson & Co. 1903. Otherwise as above.	As above
17) Sandfields 65-inch.	Sandfields Pumping Station, Severn-Trent Water Authority, Lichfield, Staffordshire.	J & G Davies, Tipton, 1873.	Worked on its present site until ceasing work in 1924.	Preserved static, may be viewed by special arrangement.
18) Springhead 90-inch.	Springhead Pumping Station Museum, Yorkshire Water Authority, Hull, Humberside.	Bells, Lightfoot & Co., Newcastle-on-Tyne, 1876.	Worked on its present site until 1952.	Preserved static, on view to the public at certain times.
19, 20) Dalton 72-inch engines.	Dalton Pumping Station, Northumbrian Water Authority, Cold Hesledon, Nr. Sunderland.	Davy Bros., Sheffield, 1879.	Pair of engines, worked on their present site until 1942.	Preserved static, may be viewed by special arrangement.
21) Leawood 50-inch.	Leawood Pumping Station, Cromford, Nr. Matlock, Derby-shire.	Graham & Co., Milton Ironworks, Elsecar, 1849.	Worked on its present site until the 1930s, restarted in preservation 1980.	Works on a modified Cornish cycle. Preserved and steamed for the public on occasional weekends.
22) Prestongrange 70-inch.	Prestongrange Mining Museum (formerly Prestongrange Colliery), Prestonpans, Nr. Edinburgh.	J.E. Mare & Co., Plymouth 1853 (engineers Hocking and Loam), (new beam with Harvey & Co's name fitted in 1874).	First put to work at Exmouth & Adams United (Devon), then to Old Wheal Neptune, Perranuthnoe and Great Western Mines, Marazion (both in Cornwall). Moved to present site 1874 and ceased work 1954.	Preserved static, on view to the public at weekends. Has unusually long stroke in cylinder of 12ft.
23) Dorothea 68-inch.	Dorothea Slate Quarries (now closed), Tal-y-Sarn, Nantlle, Nr. Caernarvon.	Holman Brothers, Camborne, 1904. (engineer Nicholas Trestrail).	Worked on its present site until 1950s.	Preserved static, not accessible.

OVERSEAS

Name of Engine	Location	Maker and Date	History	Status
24) Cruquius 84/144 inch.	Cruquiusdijk 27 & 32, Vijfhrizen (Haar-lemmermeer).	Harvey & Co., Hayle, 1846. One of the three famous annular compounds.	Worked on its present site until 1933.	Preserved static, on view to the public daily in summer. Has eight hollowork beams.
25) Ookiep 50-inch.	Ookiep Copper Company, Nababeep, Springbok, North-West Cape Province, South Africa.	Harvey & Co., Hayle, 1883. Alterable to double acting working (engineer John Hocking).	Worked on its present site until 1920s.	Preserved static, on view by arrangement with the Company.
26) Ookiep 30-inch.	As above.	Not known.	Put to work on present site 1874, probably secondhand from Cornwall. Ceased work 1883.	Dismantled c1905 and left lying derelict on the ground. Only major parts survive.

Note: The beam only of four Cornish engines still survive, viz:

1) Devon Colliery, New Sauchie, Clackmannanshire, Scotland – by Neilson & Co. Glasgow, 1854 – beam still in position in house.
2) Hammersmith pumping station, (formerly Metropolitan Water Board), London W6. – 72 inch engine by Harvey & Co., 1872. Hollowork beam now preserved at Thames Water Authority's Kempton Park Pumping Station, Sunbury-on-Thames.
3) Taylor's Shaft, East Pool Mine, Redruth, Cornwall – 36 inch engine by Charlestown Foundry 1911, formerly at Goonbarrow China Clay works. Made of wrought iron, now surface balance beam of preserved 90-inch engine.
4) Severn Tunnel Pumping Station, Sudbrook, Gwent – 75 inch engine by Harvey & Co., 1879. Made of wrought iron, now preserved in grounds of Swansea Museum with the parallel motion.

NEWS FLASH!

On Saturday, 4th April, the Cornwall Railway Society is organising a coach outing to one of the best-known steam-worked 'museum' lines, the Watercress Line at Alresford in Hants. An inclusive fare of £11 includes a trip on the line. Trevithick Society members are welcome – please contact the CRS visits secretary without delay, Mr. R. Winnen, 34 Mount Street, Penzance.

MEMBERS' RESEARCH PROJECTS

BROOKS, A.W. Polstrong Cottage, Polstrong, Camborne, Cornwall. King Edward Mine (South Condurrow) 1895 - 1921. Would appreciate access to any information in members' hands.

COWMAN, Des. Knockane, Annestown, Co. Waterford Eire. Economic and social history of mines in Southern Ireland; would appreciate help from any member with knowledge of Cornish connections.

EDMONDS, E.W.A. "Newlands", Tarrandean Lane, Perranwell Station, Truro TR3 7NW. Electricity in Cornwall. The early use, covering supply companies and consumers with their own power plant, especially mines.
Wanted, on loan - Sales Catalogues for auction of mine machinery. Makers' lists of electrical machinery. Photographs of electrical equipment in mines, etc. All 1890 to 1940.

GREAVES, Alan. 45 Homefield Avenue, Arnold, Nottingham. Ding Dong Mine, nr. Penzance; would like in particular illustrations of the mine in its working days.

SHORT, Colin and Ann. The Manse, 14 West Drive, Lanchester, Co. Durham DH7 0HQ.
Cornishmen as strike breakers in colliery and similar trades' disputes.
The development of road public transport in Cornwall, Cornish goods and parcels carriers.

BOOK REVIEW

The Old Industries of Dean
by David E. Bick

80 pp, 8 5/8" x 6 3/8", illus. maps and plans
£5.00 post free from the publisher at The Pound House, Newent, Glos. GL18 1PS

Now best known as an area of outstanding beauty and a tourist attraction, the Forest of Dean has within living memory changed almost beyond recognition. The district was for long the site of heavy industry, culminating a century ago in numerous large and well-known collieries, iron mines, blast furnaces, tinplate works, quarries and many lesser enterprises.

As a collection of captioned photographs showing the mines and industries in the Forest, this little book follows a pattern which has become well established. Though as recently as 1945 half the male population in the area worked in coal, there is very little sign of this today. The Forestry Commission and local authorities have seen to it that little remains to interest the engineering archaeologist of the future.

Though the photographs are mostly first rate, the paucity of the written matter is tantalising, especially having regard to the price. It is to be hoped that the book will encourage a more in-depth treatment before all living memories are lost.

KMB

BREATHLESS TALES Part I

Justin Brooke found these humorous writings by the late J.W. Horton Bolitho of Falmouth amongst the papers of Dr. Hamilton Jenkin. Here are the first two:

Some London directors, of German-Jew origin, were running a mine in Cornwall during the 1906 boom, and floated the company on the London market for a huge sum. Visiting the mine they prepared to go down one part in the new electric hoist, walk through the main levels, and climb up the other end by a very old-fashioned underlay shaft, where there were ladders and a footway.

Before going down with the manager, they met in the "dry" or changing-house an old underground cappen who had just come to grass and was having croust. Seeing them put their miners' suits on over their ordinary waistcoats he turned to the leading director. "Say, muster, better give me your gold watch." - "Vat?" says Mr. Gluckstein, "Vat, me gif you my lofely gold vatch vat I pay twenty pound for quite lately, vat, do ve not pay you good monies and yet you vant my vatch as vell, ree-dickless vasn't it, I do it not".

It should be explained that it was customary for any captain likely to be staying awhile in the count house to collect all the watches and chains of visitors going underground and to wear them for the next hour or two, a much better plan than leaving them on the count house table, where they were liable to be removed.

———•●•———

Cappen Nicky Boyns was an offshoot of the famous Boyns family who for three generations managed Boscean, Boswedden, Wheal Owles and other St. Just mines, they being highly educated people, while Cappen Nicky had scarcely any education. But Cappen Nicky, besides being underground agent at Botallack was a noted preacher.

One Sunday to a crowded audience he began as follows: "My beloved brethren, wimmen and children. I be about to discoose today on King David. Not Davy what keeps the pub to Pendeen, or my ole enemy that blaggud Cappen Davy, over to Bojewyans - but King David, in the Bible. As a boouy he was some schollard, he could tell most they psalms by art, in fact he made up sum on em hisself. Well, wan day he took a arp just like the Heyetalian played in the square last copper crist, and went to look for King Saul. Sure nuff, when he come to the count ouse there ee found Cappen Saul, sitten down by the fire, carpet slippers up and reading the "West Briton".

" 'Morning Cappen Saul' says ee. 'Morning my son' says Saul, whereupon Davy he pitch to play the arp and sing un a psalm or two. Now Saul was feeling a bit wished like, ee being a arty man, and St. Obbins the day afoore, and when Davy eed sung several o they psalms Saul got mazed like and what must ee do but eave a gurt javelin at Davy. Most of ee doant knaw what a javelin is. Some might say tis a geet bar iron, but ee idden. A javvelin es won o they geet long eavy steel boryers as we do use underground. Now the Lord loved Davy and the Lord ee misguided Sauls arm and ee missed Davy, and Davy ee sung out the Lord be praised and as St. Paul said, 'a miss be as good as a mile'."

NOT A TREVITHICK LOCOMOTIVE . . . .

(From obit on Robert Wylie, "The Newcastle Journal" 5th April, 1875)

"Nicholas Wood on Railroads" states that an engine erected by Richard Trevithick of Merthyr Tydvil "was sent to the North for Mr. Blackett of Wylam; but was, for some cause or other never used upon his railroad, but was applied to blow a cupola at an iron foundry in Newcastle".

In Smiles's "Life of Stephenson", it is stated that Mr. Blackett "went so far as to order a locomotive engine direct from Trevithick, to work his waggon way, about the year 1811," and the same statement occurs as in Wood's work, about it not being used; but its ultimate fate is differently described:- "Mr. Blackett eventually sold it to a Mr. Whinfield of Gateshead, by whom it was employed for many years in blowing the cupola of his iron foundry." Such was the story that passed current for some time, and on the strength of this statement Mr. Trevithick laid claim to the honour of inventing and constructing the first locomotive used in the North of England. It was Mr. Robert Wylie who first corrected the error having seen a reference in the Gateshead Observer to this locomotive, giving the above account of its origin and destiny, he hastened to give the true version of the matter.

From his statement it appeared that the engine used by Mr. Whinfield of Pipewellgate was not made by Trevithick, but was manufactured on his own premises about the year 1804, where Price's Glassworks now stand. It was made prior to Mr. Wylie's time, but he distinctly remembered it, and, in fact, helped to fire and work it during his apprenticeship. He had charge of it and did repairs to it. The boiler was of cast iron about 1½ inches thick. The engine was made for Mr. Blackett of Wylam, but as it did not suit his purpose, it was converted into a stationary engine and used at Mr. Whinfield's works.

At that time John Steel was his engineer, and, according to the evidence of John Turnbull of Eighton Banks, who was serving his time with Mr. Whinfield during the construction of the locomotive, a temporary way was laid down in the works "to let the Quality see her run". Turnbull's evidence is corroborated by John Hewson, a fellow apprentice, who distinctly remembered the engine being made before he was out of his time, when he and Turnbull were apprentices together. John Steel, the engineer at Mr. Whinfield's works, belonged to Colliery Dykes, near Gateshead, (who) followed his trade as an engineer for some time in the north, but afterwards went to Wales, and worked there for Richard Trevithick. Subsequently he returned to the north, and entered Mr. Whinfield's employment as foreman. He there constructed the locomotive, and afterwards left to go to Paris for the purpose of putting engines into the first steamboat built in France, but was unfortunately killed on the spot by the bursting of the boiler on the day of trial.

The drawings of this (really the first locomotive in the North of England), are now deposited in The Science Museum, South Kensington, and are three in number - 1st, a well executed perspective view, no date; 2nd, regulating and shuttlecocks, half-size, Sept. 17th 1804; and 3rd, waggon engine, scale one inch to the foot, Oct. 3rd 1804; they are neatly framed, using wood from the old Tyne Bridge.

In the frontispiece of Mr. Trevithick's autobiography, an engraving is shown of these drawings, and Mr. Wylie's name occurs in two paragraphs of that work during the discussion of the question as to who really made the first locomotive in the North of England.

The deceased was a genial, unpretending man, generally esteemed for the kindness of his disposition, and his extensive knowledge of his own profession brought him into contact with a large circle of acquaintances, amongst the engineers and manufacturers of the neighbourhood; and his early familarity with the really original locomotive of the north and life-long experience of railway development, made his conversation very entertaining; and he often related amusing anecdotes of the history of that engine.

This item from Miss Gwynneth King of Launceston was received by Paul Stephens through the good offices of the Cornwall Committee for Rescue Archaeology and we have printed it slightly shortened. - Ed.

DENIS McCORMACK

The death of one of our members, a distinguished engineer living at St. Michaels in the USA, occurred in August at the age of 78. Mr. McCormack was born and educated in England and was employed by Vickers Automatic Machine Company and the Imperial Tobacco Company. He moved to the United States at an early age and was employed by Proctor and Swartz and the Bendix Aviation Corporation, and served as president of Fox Industries.

At the time of his retirement, he was president of Triumph Engineering Corporation in Baltimore.

He held several patents in automatic control of temperatures and humidity. He assisted in the development of aviation and military devices and was the project manager for the variable time fuse used by the American artillery in World War II.

Mr. McCormack was a member of the Newcomen Society, the Society of Automotive Engineers, the St. Andrew's Society and various engine restoration groups.

He is survived by his wife, the former Jean St. L. Patterson of St. Michaels and formerly of Canada, who is also a Trevithick member.

LETTER

Dear Editor,

Could you publish in the next Newsletter an appeal for any information on the Ding Dong mine Penzance, particularly information on any illustrations of the mine when working?

It may be of interest to members that it is possible to obtain photocopies of the first editions of the Ordnance Survey's 25" and 6" to the mile maps first published in the 1880's, the 25" scale maps show extremely good detail down to individual buildings. I have the maps covering Ding Dong mine and the Botallack area and it is possible to trace the exact position of buildings and workings on the ground today using these maps. It is also possible to find the position of small mines which are not recorded elsewhere and traces of which no longer remain.

It is also possible to obtain from the Ordnance Survey at Southampton copies of aerial survey photographs as 27" square prints. These are available in two scales, the larger of which would be needed to show fine ground detail such as mine workings or archaeological sites. A request to the Ordnance Survey giving OS coordinates of the area required results in a very detailed 1" scale overlay tracing giving the exact centres of each photograph. The quality of the prints is very good indeed. I should mention that the copies of the early OS maps can be obtained by mail from the Map Room of the British Museum.

I hope this information will be of interest to members.

Alan Greaves,
45 Homefield Avenue,
Arnold,
Nottingham.

CUTBACKS AT TOLGUS AND TRURO

Temporary closure of the Tolgus Tin museum while planning difficulties concerning proposed extension of activities are resolved was announced by the new owner, Peter Young, in December. Sixteen staff were declared redundant before Christmas and the museum will remain closed during 1981. It is reported in the local press to have been making "massive losses" under the previous owner. Madame Tussauds.

Mr. Young plans to build a new hall to house the bulk of the exhibits from the Holman Museum, also a children's adventure playground, and reopen in April 1982. In the words of Peter Hawkins, general manager, "It became clear in negotiating with the planning authorities that the building work and landscaping required made it impossible to open in time for next season."

A minor casualty is Truro Museum which from January 1981 will remain closed on Mondays. According to the curator, H.L. Douche, this makes possible more effective deployment of security staff who now all have the same two days off, that is Sundays and Mondays.

Would-be researchers into Cornish affairs should note that the three principal places where records are available for study have different opening times. The two others are Redruth Library in Clinton Road which is open Tuesday to Saturday with a lunch break 12.30 - 1.30, and does not open on Saturday afternoon. County Record Office, Truro, behind the old County Hall is open Monday to Friday during normal business hours with a lunch break 1.00 to 2.00, and does not open on Saturdays. Before visiting CRO it is advisable to make an appointment by telephoning Truro (0872) 3698.

KINDRED SOCIETIES

The Welsh Mines Society, formed in 1979, reports it now has over 90 members scattered throughout the British Isles. It has already staged two well-attended field trips, to Cwmystwyth and the Llangynog area, and more are planned. The Society is a member of the National Association of Mining Historic Associations. The founder is David Bick (whose new booklet 'Old Industries of Dean' is reviewed elsewhere in this Newsletter); his address is The Pound House, Newent, Glos. GL18 1PS and the annual subscription £1.

The Somerset Mines Research Group was formed in 1980 and has just produced its first newsletter. The moving spirit behind this venture is Andy Bowman of Church Farm, East Brent, Highbridge, Somerset.

The Trevithick Society sends good wishes to both these bodies, each of which fills a gap in the study of British mining history.

Kew Bridge, Brentford

Sir Peter Parker inaugurated the fifth large engine here, the Hathorn Davey triple expansion engine of 1910 ex Southfields Pumping Station, Newmarket, on 17 February.

Steaming of the West Cornish and Grand Junction 90-inch Cornish pumping engines at Kew Bridge Pumping Station will take place each Saturday, Sunday and Bank Holiday during 1981 except Good Friday, Christmas Day, Boxing day and the weekend prior to Christmas. From 23 February there will be three other large engines also in steam, the Easton & Amos and Dancer's End rotative beam engines and the recently-erected Hathorn Davy. Opening times, 11 am - 5 pm.

Crofton, nr. Great Bedwyn, Wilts

Steaming dates of the 1812 and 1845 Cornish engines at Crofton Pumping Station on the Kennet & Avon Canal in 1981 will be as follows: April 18, 19, 20; May 23, 24, 25; June 27, 28; August 29, 30, 31; September 26, 27; November 7, 8. Opening times on these days 10 am – 1 pm, 2 pm – 6 pm.

The Trevithick Society for the study of the history of Industry + Technology in Cornwall
incorporating The Cornish Engines Preservation Society and The Cornish Waterwheel Preservation Society

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