

## Newsletter 5: October 1987

The first of our monthly gatherings was held in the Fox and Hounds on Tuesday, 6th October. Gwynne Liscombe brought the display of photographs and documents of Llancarfan in the past which had already attracted so much attention at the first inaugural dinner. Andrew Griffiths also produced a collection of photographs dating back to his childhood in the village and, together, these stimulated a lively discussion and awakened all sorts of past memories. Some of these have found their way into editorial records and will appear in future articles or notes in the newsletter. Gwynne very kindly lent the display board for photocopying and reproduction of photographs. We hope to be able to use some of these in future publications and there is certainly scope for several 'then and now' or 'where is this?' illustrations.

## Future Events:

WHIST DRIVE. A whist drive is to be held on Tuesday December 1st at 7.00p.m. in Penmark Village Hall. Cost 0.75p including tea and biscuits. Raffle and prizes. Tickets from Rene Jankovic at the Post Office (Bonvilston 203).

MONTHLY GATHERING. The monthly gatherings are still on schedule for the first Tuesday of each month at about 8.30 p.m., THE NEXT ON TUESDAY, 3rd NOVEMBER. Come along and join us for a quiet drink and if you have anything from the past which can safely be looked at you will be guaranteed an audience.

FUTURE NEWSLETTERS. We shall only be able to fill repeated newsletters if people volunteer information, bring in documentary records or even write things for us. The most interesting experience this month has been a visit to Peter and Joan Badcock at Great House to look through Ernie Badcock's diaries which span the years from 1926 until 1986. During much of this time he was Clerk to the Parish Council and, latterly, the Community Council. Helped by Peter and Phil Watts I have recorded 60 years of 'the same day', starting with the first diary and ending with the last notes Ernie made when he was in hospital in 1986. We chose to start with the first entry of all, 26th January 1926. The earliest entries for this arbitrarily chosen date each year reveal a way of life which has gone forever from all but the remotest villages in Britain and even then much changed by the machine age. These will be writtenup as an article for the newsletter in a month or two from now and we are most grateful to Peter and Joan for letting us see the diaries.

Future items include recollections of the last year or two of Harry Hughes' life, memories

of the sounds and smells of Llancarfan half a century ago, vanished houses of the village, hedges and fields in the Parish and several others which various folk are half persuaded to write! If you would like to contribute something but don't feel up to writing a full-blown article, give a set of notes to John Etherington which can be turned into either an article or something shorter. What about readers letters? You havn't sent any yet but I'm sure you want to complain or tell us about inaccuracies. Phil Watts is writing a short article on his father: are there any other long-resident families with a present day son or daughter who would like to write-down some memories of this sort?

## The Llancarfan Ram

No, not a fabled beast, cousin to the black-dog of Cwmciddy or the Grangetown whale, neither is this the story of some former Llancarfan Lothario pursuing the maidens of the Vale. No, the ram was a water pumping system, built before piped water came to the to village. It pumped water for stock in the fields of Pancross Farm 150 feet above our chuckling Nant Carfan. The supply for the ram was taken from the disused Old Mill race, in the centre of the village. The remains may still be seen in the woodland of the 'Conjunction' beside the millrace footpath which Norton and Margaret Evans (The Willows) have made so much more accessible during the past few years.

To the west of the footpath, just beyond the end of Old Mill garden, there is a concrete ram-housing with some iron fittings still in place and almost hidden in the silted bed of the race is a nine inch concrete supply pipe which was fed from a sluice-boarded enclosure about 100 yards upstream not far from the dam which provided the head of water for the mill. The outflow pipe crosses the river beside the garden of Carreg Llwyd and climbs the steep hillside up through Coed y Crynallt to the fields above.

The principle of the ram is that the energy provided by surges of water pulsing down the supply pipe is used to pump about a tenth of the total flow uphill while the remainder runs to waste. The pulses of water are controlled by a self-operating valve inside the ram. The water flow and energy are supplied free by nature and the ram pump may last for 50 to 100 years with minimal maintainance so this seems a pretty good bargain compared with most modern machines! For the technically minded a more precise account is given in the last paragraph of this article.

Each time the ram operates, the water slams into it with such force that a loud thud is emitted, a magnified version of the water-hammer most plumbing systems give if you close a tap too suddenly. The cause of this domestic 'clungk' is indeed exactly the same; it just shakes your pipe joints to pieces rather than doing useful work. People who recollect the ram in action invariably say that they remember the rhythmic thudding, perhaps even if they never saw its source in the concrete box. Our modern day equivalent must be the roar of the package-tour turbines rocketing into the sky from Rhoose!

The supply pipe for the Llancarfan ram is unusual in being made of concrete rather than steel. This is an unsatisfactory material as it is not strong enough to resist the constant pulses of water pressure. In earlier years when it was not so deeply buried in silt it was noticable that the pipe had been patched in several places with motor tyre inner tube rubber, clamped in place with a metal band. Presumably the water pulses had occasionally hammered a chunk of concrete out of the pipe wall! Incidentally, you engineers and industrial archaeologists out there: when were the first concrete pipes made? Is this pipe a replacement of an original iron one? (Ernie Badcock's diaries record at least one bursting of the 'power pump' in freezing weather).

When I came to Llancarfan in 1967 I had never come across a water ram before but now know that there were quite a number in the Vale of Glamorgan where much of the natural water is confined to deep valleys and the high ground is often without drinking water for man or beast. A ram is still in use pumping a domestic water supply to the house named Blaen y Cwm, near the coast between Nash Point and Southerndown. Blaen y Cwm is the home of the Misses E. & M. Bruce and the ram was a replacement for one installed by their father which previously gave service for 60 years. Spares are still available from the manufacturer and a colleague of mine from the University has actually repaired this one! As a snippet of local lore, the Misses Bruce told me they remember the Thomas family at Wick in the early 1930's before Vivian Thomas came to Pancross Farm, now farmed of course by his son Tony.

There are remains of other rams in the Vale, one at Newton near Porthcawl and another at Broughton which, I believe, resembles ours, being sited in a disused mill race. Now that I have written these notes I'm sure that some of you who are interested in this sort of thing will be able to tell me the location of others. The most impressive thing is their long life: 60 years for the Blaen y Cwm ram was quite young but the sulphate-rich water of the Lias limestone had probably corroded it. The Centre for Alternative Technology at Machynledd suggests that rams may last a hundred years. How many other machines can do so much free work with minimal maintainance for so long? Perhaps it should be in the Guiness Book! Rams are still available from two firms in Britain or the Centre for Alternative Technology will sell you a cheap DIY design.

Technical note. The hydraulic ram is said to have been invented by Montgolfier (of hot-air balloon fame) in the late 1700's and they were first marketed in Britain at the beginning of the nineteenth century. The body of the pump is made of forged iron or steel and has two principle enclosures; a ram chamber and, connected to it, an air-vessel. There are only two moving parts: a waste outlet valve from the ram chamber and an inlet valve between the ram chamber and the air vessel. The pumping cycle starts with water running downhill through a feed pipe. As this flow increases in rate it suddenly closes the outlet valve and prevents the water flowing to waste through the ram-chamber. The water cannot stop instantly and is quite literally 'rammed' into the now closed chamber. This forces the second valve open and admits a small amount of water into the sealed air-vessel. The air is compressed to make room for the water and it then re-expands, both shutting the inlet-valve again and pushing water up an outflow pipe, in this case to the Pancross fields at the top of the hill. At this stage all is back to square one, the feed pipe water starts to run

again and the whole cycle is repeated.

I am grateful to my friend and colleague, Peter Jones, for information on the Blaen y Cwm ram. There remain some unanswered questions: who built the ram and exactly when? Was it a commercially available ram or 'do-it yourself' if such a phrase existed then? What is the circular stone-lined pit (older?) close to the ram chamber?

## The Blacksmith's Shop

Les Griffiths' article in the last newsletter recalled the Blacksmith's Shop before the Great War and the County Archive records its employing six in the nineteenth century. Dilys Liscombe's father, Jehoiada (Jo) Lewis was the blacksmith from the early years of the century, having bought the shop and business in 1914. You may be interested in the receipt for the purchase which is reproduced below. This was one of many items which appeared on Gwynnes' display board at the last Fox and Hounds' gathering. The shop has gone now, to make way for the garage of Capel yr Efail. All that remains is the wheel banding plate embedded in the pavement and a few tools which embellish the Forge Restaurant of the Three Horseshoes at Moulton.

Oct 6th. 1914 Received of Mr Jehoiada Lewis Seventy Five Pounds for Business & Materials of Smith Shop at Llancarvan amounts being Forty Five pounds for materials and Thirty Pounds for Business (*A facsimile of the receipt was copied with the Newsletter*)

Jol