



The Combe Yard

Newsletter of the Combe Mill Society



January 2021

A Happy New Year to everyone. We can only hope that as more and more people receive the vaccination, life might resume to something like normality before too long. The enthusiasm of a few members has ensured that maintenance work has continued at the Mill. Thanks from all of us for this.

The Mill remains shut to everyone apart from those working on approved essential projects.

The directors have re-activated the procedure adopted for the November lock-down and members wishing to have approval for any project work should contact Peter Trowles or Philip Hawtin.

Display frame for pumps

We have two old hand pumps in our museum.

The Village Lift Pump is typical of the many hand lift pumps used for pumping water for village, domestic, farm and industrial duties, from the 17th century and earlier. It's a simple lever operated single piston pump with leather seals.

The Chain Lift or Slurry Pump, found in the foundations of our tearoom, was mostly used by farmers to move collected animal waste, old hay and other organic matter which had matured to fertiliser. Its hand-wheel operated continuous chain with buckets, lifts the slurry into the pump body which then discharges to use.

Both had been renovated to working condition but needed to be arranged for demonstration. The display frame holds them above the old galvanised water tank partially filled with water (slurry is far too toxic to use).

Initially a welded steel frame was considered but all our skills of carpentry had to be used after the generous donation by Mervyn Merchant of well seasoned Sapele, an African mahogany.



Chain lift pump

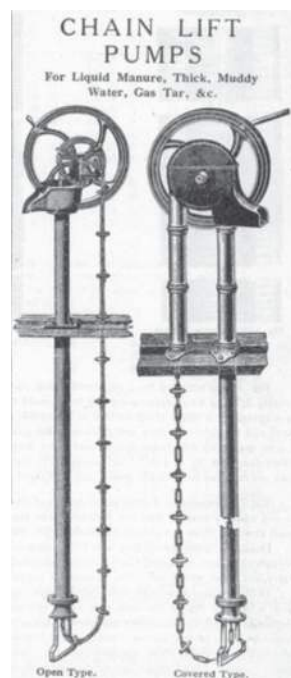


Village lift pump

Together with blacksmiths, engineers, volunteers and an anonymous donation we now have a unique working display.

Our stewards will safely demonstrate working, but of course we are a "hands-on" museum and will allow our visitors a go.

It will be commissioned before we return to normal in 2021 we hope.



Derek Goddard

Air source heat pump (ASHP)

A limited amount of heating at Combe Mill is provided by an ASHP. This heats liquid which is pumped around the Forge, the Beam Engine Room and to the Foreman's Office. The purpose is to provide background heating to keep condensation off the beam engine and small steam engines, also to provide background heating in the Foreman's Office and Toilet area with full heating in the Foreman's Office when required.

Recently, Terry Bailey arranged for Oxford Refrigeration & Air Conditioning (ORAC) to carry out routine maintenance of the equipment together with instruction for how to carry out the cleaning of filters in the Foreman's Office fan heaters by Mill volunteers. This visit highlighted that the level of frost protection in the system offered protection down to -3deg.C. To improve this cost effectively, it was decided to carry out the work in house.

On behalf of the society, Charlie Rich procured the Alphi-I I Inhibitor/Protector together with a refractometer to check the level of frost protection.

The work was carried out by Charlie with assistance from me to drain down the radiator in the Foreman's Office toilet corridor and refill with the Alphi-I I. Ten litres were added and this was completed in two sessions with time to circulate in between. The result offered frost protection down to -7deg.C.

During the pandemic, Terry has been monitoring the electricity consumption throughout the Mill. Following the switching on of the ASHP, as expected the consumption increased considerably but this has been mitigated slightly by small adjustments of the thermostats. The costs associated with this are justified in order to keep the Mill's assets and documents in good order.

Richard Newman

Engine room decoration

The whitewash on the engine room walls was applied in 1969 and has never been repainted until now.

It's worth examining the Log Book to read what our predecessors worked on and it shows that in November 1969 they began to strip the paint off the beam engine and to wash down the walls prior to whitewashing. The work included painting the ceiling and was probably completed by July 1971 when the last reference to whitewashing was found.



Recently a team led by Terry Bailey working with Alan Dear and others has been restoring the cracks in the walls using lime mortar and then painting them using white Chalk paint. They began painting on the viewing platform and the photographs show what a difference the new paint makes.

Brighter viewing platform now it has been repainted



Contrast between old(left) and new paintwork (right).



Stripped beam engine as painting took place. Photo from Peter Hirst collection

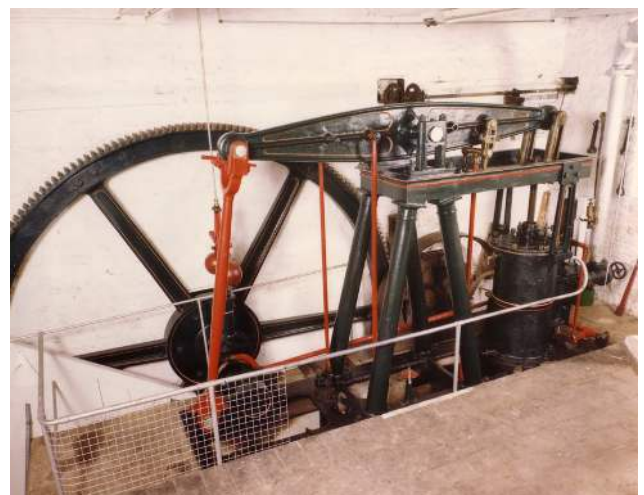


Photo of engine in 1970s after restoration

Boiler feedwater tannin dosing

To remove oxygen from the boiler feedwater, tannin is added as an oxygen scavenger thus avoiding corrosion.

The current dosing method used for the boiler at Combe Mill has served us well as, on inspection, the tubes have had a good covering of tannin. The method adds a measured amount of tannin on a timed basis to the feedwater tank. The volume of water added to the boiler on each operation of the boiler feed pump only takes a proportion of the tannin into the boiler; the remainder is diluted as the feedwater tank is refilled. Measurements of the level of tannin in the boiler and volumes of water consumed were taken by John Sylvester during the 2019 Steaming season.

To gain better control over the amount of tannin used, following research and evaluation by Philip Hawtin, it was decided that a revised method of dosing was required to more closely replicate the system used when the boiler was designed. The aim was to add the tannin on a measured basis to the feedwater between the tank and the pump.



Lever operated dispensing cylinder



Discussions were held between volunteers, resulting in Charlie Rich designing a system using his knowledge of hydraulic systems in industrial situations. The system uses a pneumatic cylinder to act as a pump with suitable valves to transfer the tannin from a reservoir to the pipe between the feedwater tank and feedwater pump. When the boiler feedwater pump operates, the total measured amount of tannin is drawn into the boiler prior to the feedwater.

Following the purchase of the equipment, Derek Goddard made a frame with a suitable base board, to mount the cylinder together with a manual operating arrangement. Derek also made and attached a scale to the cylinder for measurement purposes.

Tannin tank (green) which feeds to dispensing cylinder

The installation was carried out by Charlie with assistance from myself. This involved mounting a reservoir beneath the water softener, siting the pneumatic cylinder, running a hose around the boiler house and tapping into the pipe upstream of the feed pump. A platform for the reservoir is being made by Robin Bowl.

A trial run has been carried out to check the operation of the equipment. Final commissioning will be completed when we can steam the boiler.

Richard Newman

Evenlode flooding

Unsurprisingly the Evenlode flooded in December but this time reached almost three metres above river bottom.

One of the picnic benches was washed onto the tail race fence and prevented from ‘escaping’ by the root washer machine.

No real damage has been done apart from leaving a sandy layer in the waterwheel and gear rooms.



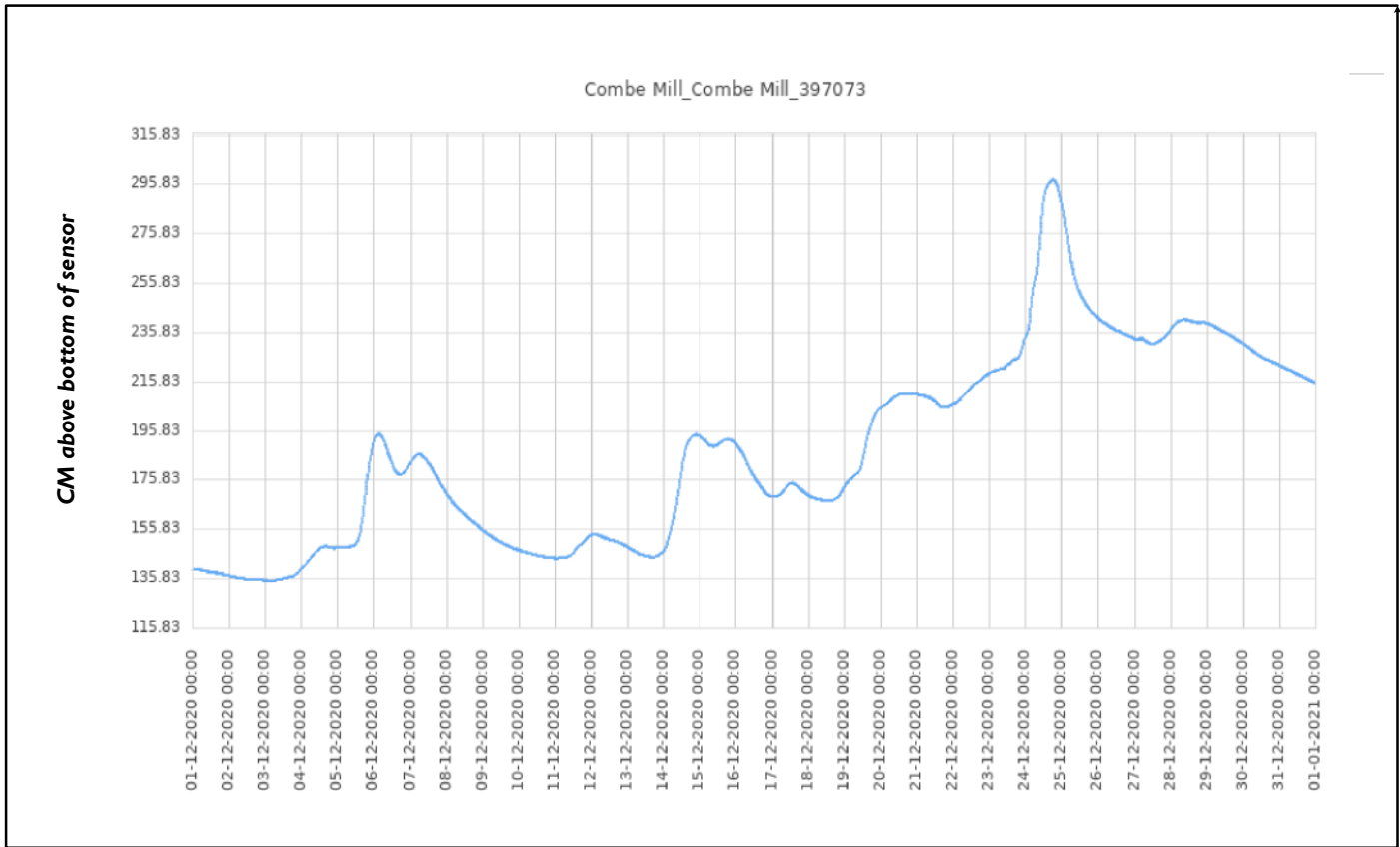
Evenlode in full spate



Stranded picnic bench



Tide mark on the stored tables in the waterwheel room



December river levels

Death of our Millwright

We recently learnt that David Empringham who worked hard to restore the timbers of our waterwheel in early 2019 had died. His obituary in the SPAB Mills News is reproduced below. We have sent our condolences to David's son Steve.

David Empringham, Millwright RIP

Sadly another of our millwrights, David Empringham, died in August 2020.

David was a partner in the Chiltern Partnership, along with David Nicholls and Christopher Wallis, two more who have passed away.

With over 60 years of combined experience, David and his team of award-winning millwrights carried out all aspects of the restoration, maintenance and repair of windmills, watermills and other historic buildings. His team specialised in the manufacture of stocks and sails.

The repair of the Victorian mobile mill was covered in two issues of Mill News.

Wheatley Windmill benefited from his work, and most recently the outstanding complete repair of Great Haseley windmill in Oxfordshire. I liked the quote on one of his photographs, "Pawn to King 4", which referred to the wooden finial on the top of Great Hazeley's cap, which he said would have made Victor Kasporov the International Chess Master very proud!

Mildred

I received this from Karl Bettels who worked with David:

"As you probably know I had been working with David and his son Stephen for a number of years, and it was in December last year that David went into hospital for a small operation. Unfortunately he got an infection and then he had other complications. He did however become strong enough to return home in the July of this year, but died peacefully at home on 1 August, his 82nd birthday.

He grew up in a small town in Lincolnshire called Doddington and was very proud of his Lincolnshire roots. I believe he travelled to Thame to study at Rycote Wood College, at the age of fifteen, where he learnt his carpentry skills. I remember him telling me that one of his teachers was an ex-pattern maker for whom he had much respect. I think it was Cartwright's furniture makers that he joined as an apprentice and learnt more practical skills.

I met him first at Lacey Green Windmill along with Christopher Wallis volunteering on Sundays back in 1979, and then from 1980-1989 during the Millwrights International time.



David pictured by the wallower at Wheatley Windmill, having replaced 40 cogs.

Picture – Mavis Ramsden.

He then worked for the Museum of Rural Life at Reading and his gypsy caravan restoration was much admired. I'm not sure when he met back up with Chris Wallis, but they undertook a number of mill projects in the 1990s – Wheatley Windmill and Stanway Watermill to name the main two.

After Chris Wallis died in 2006, I met up with David again and, as he was still in the middle of the two projects, I joined him and we finished them both. It was just a shame that Chris could not have been at the Royal opening at Stanway Watermill, to see his project through.

Stephen Empringham, David's son, had started working with us, and we undertook another major restoration of Great Haseley Windmill. We also built a new cap frame for Quainton Windmill, and made windmill sails at our High Wycombe workshop for a number of mills.

During the last two years David had relaxed a bit more, but he always called in to see how Stephen and I were doing and give his advice whenever we asked. I wish he had had a little more time during this phase because he seemed more at ease and content with his life.

I hope this helps for his obituary in your Mill News. Dave used to bring his copy in for me to read, for which I was very grateful, and we used to have much discussion on certain mill projects."

Karl Bettels

Forthcoming events

Monday 18 January - 18.00hrs ZOOM Board meeting

Bill Keen

We are very sad to report the death in early December of long time member Bill Keen. He had been ill for the last year or so and latterly on a permanent oxygen supply. Bill last visited the Mill with his carer in October 2018 but used to ring me after each issue of our newsletter to enquire about what had been going on.



Bill was a very active member and a director between 2006 and 2011. He was involved in every ongoing project from acquiring and setting up the oil-fired boiler in 2006, to maintenance of the waterwheel and the various water pumps and, of course, his home habitat, the forge.

Richard Brown and Bill Keen at work on our 'new' boiler - 2006

Bill was forced to give up working in the forge because of his breathing difficulties but turned his energies to fund raising by plant sales and by setting up what became our regular steaming event burger stall. Bill also supplied wreaths for sale at our Christmas Markets even when he could not attend.



Bill Keen



Bill Keen at the forge - 2008

We only learnt of Bill's death on New Year's Eve so very few members will have known about funeral arrangements. The funeral took place on Monday 4 January.

He will be long remembered and greatly missed by his friends at the Mill.

Tony Simmons

Brian Smith

We have also learnt that Brian Smith has died. Brian was a member from 2011 until 2016 and also a member of the Witney Model and Collectors Club. Our condolences to his family and friends

Annual subscriptions

Many thanks to those members who have kindly paid their membership dues for 2021 without any prompting. Even with the mill closed to the public, we still have a lot of on-going costs which need to be paid, so please consider continuing your support as every penny helps.

As the mill is closed, except for essential maintenance etc, please consider paying by bank transfer (or direct debit) rather than coming to the mill in person. Payment by snail-mail is also available as the post will be picked up on an occasional basis. Further details are repeated below

Terry Bailey

Subs fell due on 1 January and should now be paid either by cheque payable to **Combe Mill Society** or by BACS to **account 00213458 sort code 30-19-83** as soon as possible.

The fees are: Single Member £8, Family members £12. Friends fee is a minimum of £20.

There is an additional charge of £10 if you wish to receive a paper copy of the newsletter.

Please post your cheque to Membership Secretary, Combe Mill Society, Combe Mill, Blenheim Palace Sawmills, Combe, Oxfordshire, OX29 8ET