

HOP HOUSE – A Victorian Water Supply System

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The parish of Marshfield is situated on the southern extremity of the Cotswold Hills. These are topped with porous oolitic limestone beneath which lies impervious Jurassic clay. There is no reliable supply of surface water on the plateau but numerous springs arise along the sides of the valleys below. Farms, houses, and the town itself had to obtain their water supplies from wells, raising it by buckets or, later, by hand pumps.

One of the first attempts to get running water was made at “The Rocks”, a large mansion in the south-east corner of the parish. The date of the first house on the site is not known; there is no positive record earlier than 1686 by which time a large house for the owner of the estate existed[1]. This was demolished in 1957 to expose, after clearance of the debris, a complete nineteenth-century dovecot which had once stood clear of other buildings.

Also remaining after the 1957 demolition was a tower built as part of nineteenth-century extensions to carry a large water tank which supplied the house and neighbouring premises with running water. From this tank, the water flows through a large reservoir, perhaps 2.5 m. by 9 m. under the terrace and on to supply gardens below.

The water supply was pumped from a small stream arising from a number of springs in a valley beside Oakford Lane about 350 m. to the north and 100 m. below the tank. The first pump seems to have been driven by a small waterwheel whose pit still survives in very good condition. Beside it is a second, larger pit which must have contained the pumps. The only evidence for these is a cast-iron base, possibly for a bearing, on the middle wall backing onto the wheel pit, and the end of an iron rod fixed into the masonry, just above it. The iron block rests on a masonry base reinforced by two iron straps. The east wall of this pit has irregularly spaced holes at the height of the wheel pit wall, perhaps for floor joists and indicating areas of heavier load.

The wheel pit, faced with good-quality ashlar, is complete. All other masonry is of coursed-rubble construction and has collapsed or been robbed above the present ground level. Holding-down bolts for the wheel bearings are still fixed in the tops of the pit walls with, in the centre of the middle wall, a small hollow. In the bottom of the pit, half buried in debris, are sections of the cast-iron rim of the waterwheel with integral supports for metal buckets indicating that it was a pitchback wheel. The width of the pit is 17 in. (0.48 m.). The probable wheel size, suggested by marks on the walls, is 16 in. (0.407 m.) by 16 in. (0.407 m.). The water was probably carried in a launder from a point to the north-east from which the present pump is fed, just above the site of the old cottage or “Hop House”.

Early maps show two reservoirs in the valley above the wheel, the upper, of which remains of a dam survive, was probably high enough to have fed the wheel. The lower may have supplied the pump.

The date of construction of the waterwheel is not known. It did not exist at the time of the Tithe Apportionment in 1840, when the site was described as cottage and garden in Hotkins Cop-pice, nor did the present alignment of Oakford Lane. Both appear on the 1882 OS map. An undated estate map shows the ‘pumping engine’ but not the road. So far I have been unable to trace when the road was built. The original lane is now an overgrown hollow-way leading to Home Farm. Vince Russett has reported a record of the growing of five acres of hops in an earlier document. This could have been the inspiration for the name of the field.

The 1882 map also indicates a small building at the site of the barrel-vaulted house for the hydraulic ram which replaced the waterwheel. Possibly the waterwheel was already out of use but this seems unlikely. The present owner of the property believes that the hydraulic ram was supplied by Bath City Water Works about 1909 under an agreement whereby the Company would take over the springs and allow a free water supply to the ram. This agreement still stands and no payment is made for the water. Wessex Water now have no details.

There are numerous manhole covers in the area and many lettered BCWW carry dates but these do not seem helpful. One lid above the site is lettered 1884, several over the main beside the road below are dated 1903, 1905 and 1911, and several above the covered reservoir 1930 or 1931. This reservoir was built to replace the open pools and appears on the 1921 OS map. The stream was diverted through a tunnel from the site of the upper pool dam.

The hydraulic ram now working is one of two supplied by Blakes of Accrington, Lancashire, ‘Hydrum No. 12969’. This pumps against a head of about 130 psi (9.19 kg/cm) using water fed through cast-iron pipes carried through a tunnel from a cast-iron header tank. This stands, largely underground, at the point from which the launder for the waterwheel may have been fed. Routine attention to this system apparently consists of no more than the fitting of new washers to the valves every nine months or so!

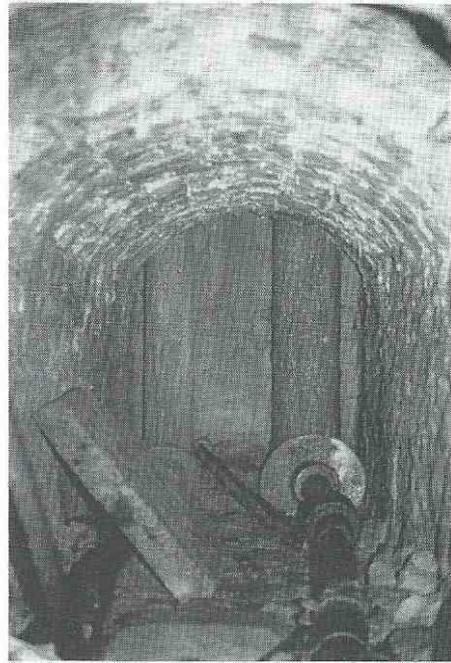
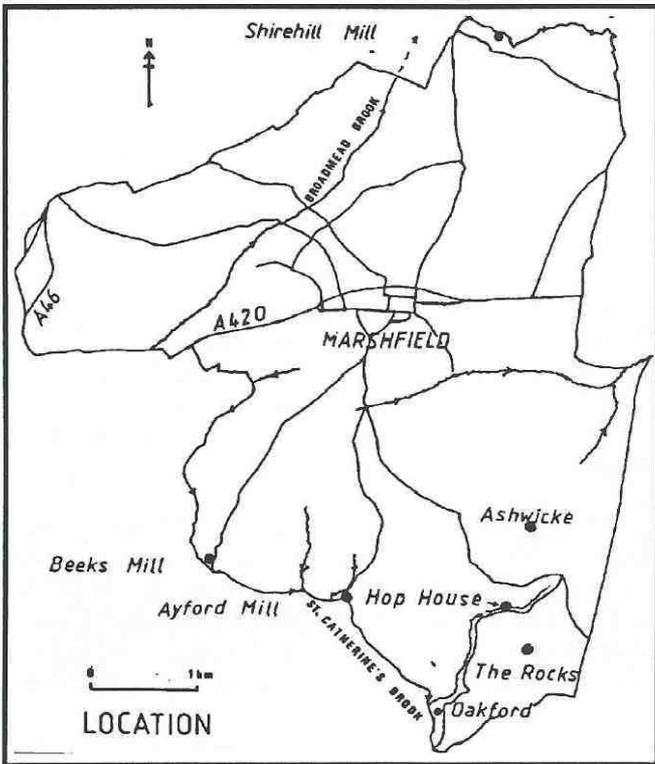
Also of interest at “The Rocks” are the remains of a small domestic gas works. The retort house, recently rebuilt following collapse, still has tar on the floor and possible bases of purification plant. The gas holder was about 50 m. away beyond outbuildings. The outline of the pit still can be made out and odd pieces of cast-iron remain. The plant must have been installed at or before the 1851 census which records John Roynon, aged 19, gasman, born in Melksham as living at “The

Rocks". A Mr A. Hope, resident in Marshfield, was recorded as 'gas maker' up to 1923 but a labourer in 1924. This may indicate the time that the plant was out of use. The only other gas plant in the parish, at Ashwicke, had been demolished by the turn of the century when two cottages were built on the site.

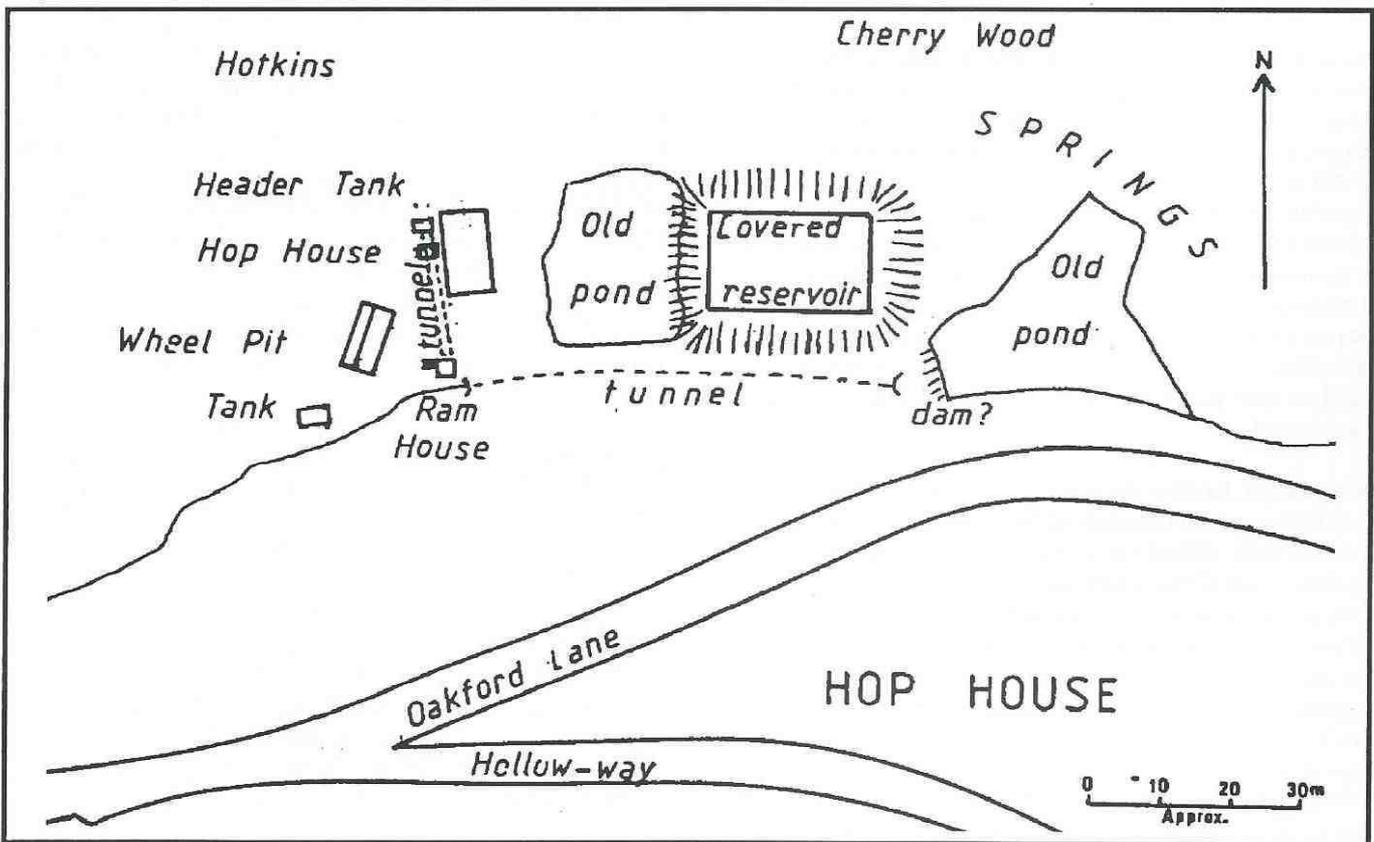
Mrs Purmeal who was born at West Lodge about 1898 can remember "The Rocks" being lit by gas.

Reference.

1. Wiltshire Record Office 529.8/59.



End of tunnel to hydraulic ram



Site plan

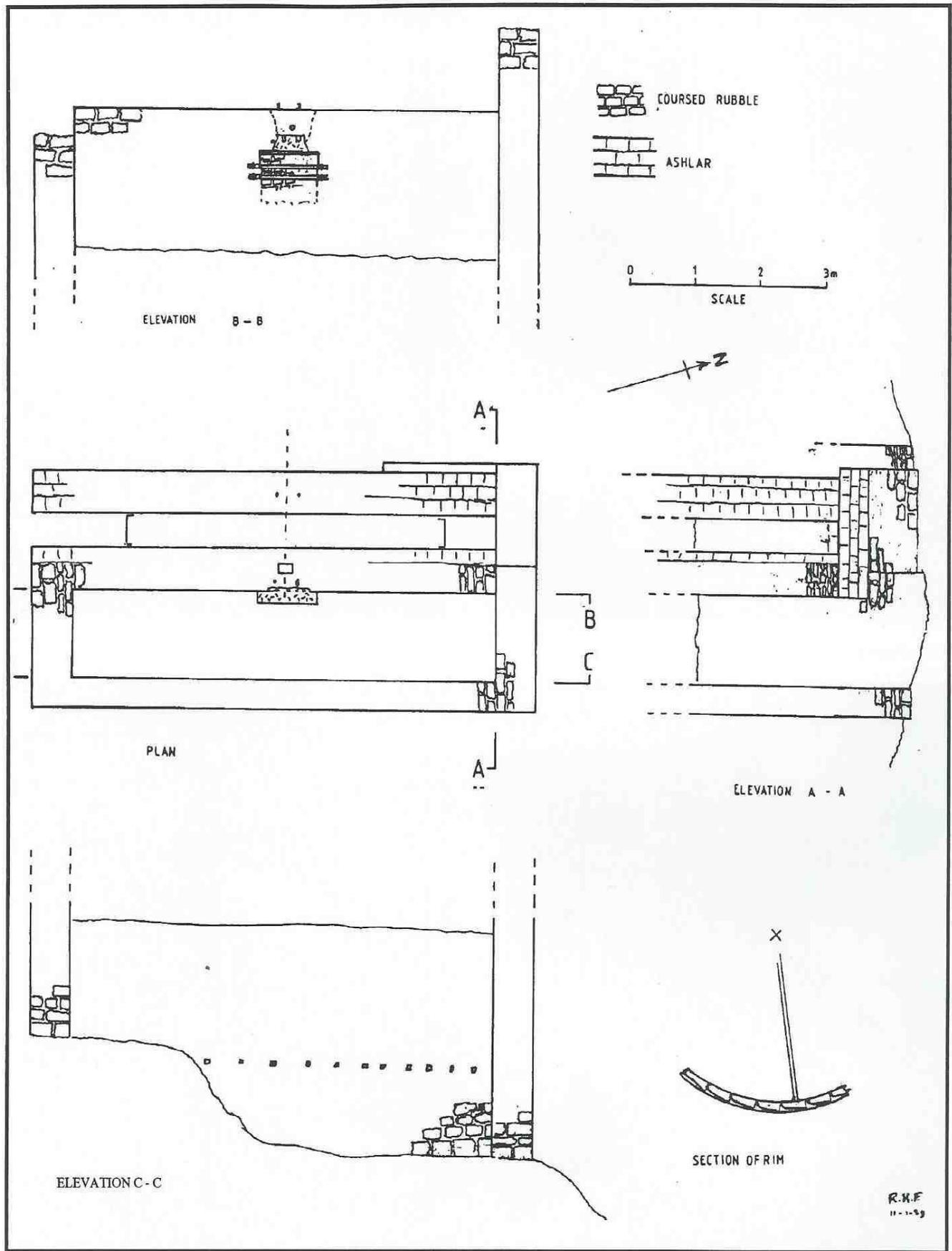


Waterwheel pit from south



Waterwheel pit from north

The Rocks



Waterwheel pit at Hop House