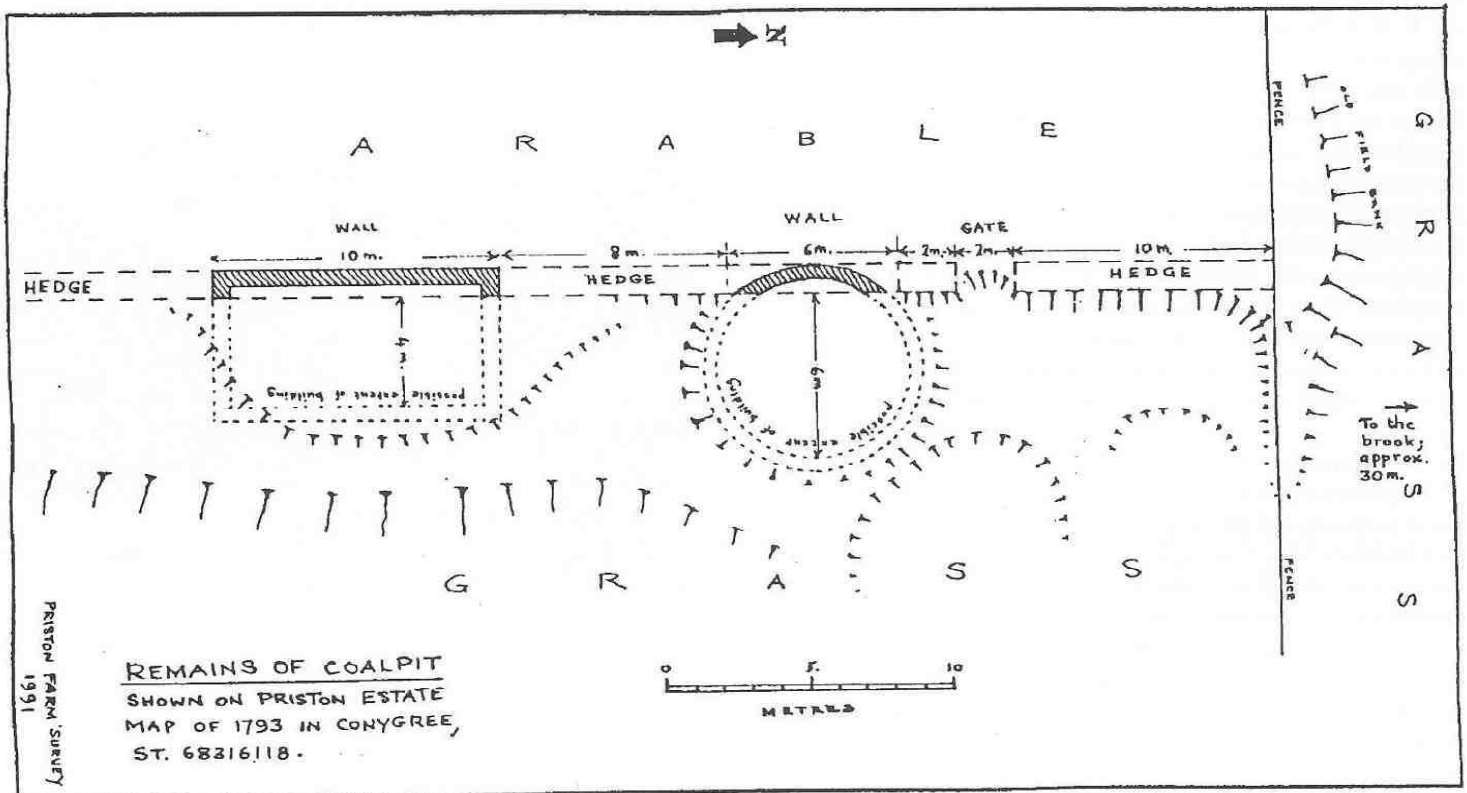


Late eighteenth-century coalworks in and around Priston manor, showing the later Tunley colliery



Sketch-plan of the site of 'old pit', Priston

PRISTON 'COAL ADVENTURE', 1792-94

Mike Chapman

An Historic Landscape Survey of the parish of Priston was carried out by the County Planning Department of Avon during 1991, funded by English Heritage to provide presentation information for the principal landowners there. While researching manorial documents for the survey, interesting evidence among the private papers of the Vaughan-Jenkins family was found of coal exploration in Priston between 1792-94. It consisted of an account book and a bundle of bills which provide a detailed picture of the day-to-day methods and organisation required in the sinking for coal in those early days. Although these papers were duly copied and transcribed, no expert interpretation or publication of their contents was possible within the brief of the survey. However, the rarity of such an intimate record of eighteenth century coal-mining in this area was thought sufficient to warrant the following outline. The author would be glad to supply more details.

Background

At the opening of the eighteenth century the manor of Priston belonged to the Parker-Long family of Whaddon in Wiltshire and their immediate descendant, Lord Percival, Earl of Egmont. In 1724 an agreement was made between Sir Philip Parker and a group of local gentlemen, farmers, traders, a periwig maker of London and Thomas Collins of Paulton, a labourer (probably a collier), to "become and be Undertakers & Partners in the Searching for, Digging, and Landing Coals by and out of the Mannor and lands of Priston" for a 21 year term. Sir Philip was an enthusiastic improver of his estates and seems to have already had coal interests in "Acton Common" in the Kingswood coalfield, but was assured that at Priston, too, "there is the Greatest Probability that there is Coal in the sd. Manner, there being Coalpits on most of the Mannors around". Nothing, however, came of this and the manor was sold by the Earl of Egmont to William Jenkins of London, a commissioner of HM Victualling Office. A fresh start is recorded in a loose leaf in the account-book entitled 'Particular Stratas of Earth in Sinking for Coal at Priston, 1764 & 1765', which describes the rock formations that were encountered through a depth of about 100 fathoms "taken down in 1782 from a Collier of Kingswood who was concerned in the above sinking". Although these coalworks are shown on Donne's map of the countryside around Bristol in 1769, the statement mentions only a few wagon-loads of "good burning coal" being extracted and it is evident that by 1782 the pit had not been in use for some years, possibly as a result of Jenkins' death in 1774. He was succeeded by his two daughters, one of whom had then married William Davies, Agent Victualler of Gibraltar. Davies retired in 1783 to concentrate on developing his properties, which no doubt prompted his enquiry into the history of the coalworks. It was not until 1792 however, that a draft agreement was made between William & Elizabeth Davies and James Chivers of Timsbury, coal miner, concerning Priston,

"..in which manor there is supposed to be large quantities of coal, and the sd. Wm. Davies & his wife have resolved forthwith to sink and open and establish a Coal Work on some part of the sd. manor and have applied to and requested the sd. James Chivers to superintend, direct & manage the sinking of such Pit and the opening and establishing of such Coal Work and also the getting, raising and landing of coals from the same for the term of 30 years if the coals can be so long landed to a profit.." It is a certain William Chivers, however, who appears in the accounts as "under ground Bailief" and is listed in the flyleaf as a shareholder. The other shareholders in the "Coal Adventure" were William Davies, his wife and his two nephews, George Vaughan, Lieut. in HM Navy and William Vaughan, another Agent Victualler of Gibraltar, both of whom held the lease of Priston Mill Farm from their uncle. The new shaft was started at the end of January 1792 and several veins of coal were discovered during the following year. The exploration continued but it is not clear how much coal, if any, was extracted. At the end of January 1794, however, the work was suddenly woundup. The account offers no explanation for this, but it is evidently connected with the role of George Vaughan. It was he who personally managed the running of the project and had sublet the mill in order to do so, his brother being occupied overseas and William Davies acting only as financier & treasurer of the coalworks. As a naval officer he was evidently recalled for active service following the outbreak of war with France, the work was stopped and the lease of Mill Farm surrendered soon after. The coalpit documents would have been kept in order to continue the work on his return, but this did not happen. The family genealogy records that he was made captain of the Alarm frigate and died in the West Indies in June 1796. Two years later William Davies also died and the project was postponed indefinitely.

The Site.

It is fortunate that during these events William Davies commissioned C. Harcourt Masters to survey the Priston estate and that the map he drew has survived, clearly showing the coalworks on the south side of Conygre Brook below Priston New Farm. The new shaft was sited in 'Red Field' at ST67666128 and another, marked 'Old Coal Pit', in 'Conygre' about 650 m. eastward at ST683161618. The characteristic shape of a round-house or 'horse gin' appears on both sites, accompanied by several small rectangular buildings. A few remains of these works can still be seen today. At the site of the new pit there is a heapstead, about 20 m. in diameter and 2 m. in height, on top of which is the mouth of the shaft and traces of other masonry nearby. The shaft is marked on the current 1" O.S. geological map and was backfilled by the Coal Board in recent times but, thanks to subsidence, it is presently visible to a depth of about 7 m. revealing a stone lining of Lias dressed with Bath Stone and the opening of a possible drift about 1 m. below the mouth. The geological map does not show the old pit and, although the ground is somewhat disturbed, there is no heapstead or sign of

a shaft. Several courses of the wall of a rectangular building and a section of the curved wall of the roundhouse have become incorporated into the hedge which bounded the western side of these buildings and the outline of the rest of the roundhouse can still be made out in the turf. It is not clear how, if at all, the two pits were linked underground.

The Accounts.

All payments for the coalwork were entered into the account book on a weekly basis, running from 21 January 1792 to 1 February 1794, with a double-entry summary at the back. Most of the entries relate to the itemised bills, including the regular weekly accounts from George Vaughan and the underground Bailiff, which are kept in a separate bundle, although there are several periods for which the relevant bills are missing. Besides the loose leaf mentioned above, there are several others with brief notes on the pit dimensions and a diagram, added after these events, of the underground section of the pit shaft. These papers provide the following information.

The Workforce.

The exact number of colliers working at the pit is rarely stated but consisted initially of a company of 5-6 "Sinkers", including a chargehand, who were paid by "turns" (shifts) at 2s./turn. As the work progressed they became "Borers" and their numbers were doubled by the addition of a team of "Branchers". They were also joined by a company of about 10 "Haulers" ('carting-boys') paid 1s.6d./turn, who seem to have been recruited from occasional unskilled "Labourers" (1s.4d./turn). All these men were employed by the Bailiff who received a weekly salary of 12s.

Each man supplied his own tools, but did not pay for their maintenance. Nor did he pay for candles, obtained from the chandler, Lawrence Lansdown, at 7s. 6d./dozen (the consumption of candles at the pit rose from 3 dozen to 10 dozen per month as the pit deepened). There was a weekly coal allowance worth 6d. per man (imported from neighbouring collieries) and every month (and on special occasions) a largess of about 5s. was spent on beer for the men as a morale booster. More curious perhaps was the provision of "cloaths for the Colliers". On several occasions as much as 60 yards of cloth was purchased, such as "Kersey Blanketing", "Buff Serge", "creased Swanskin" and "Sheeting", which was then made up into "sutes of cloes for ye men" (including waistcoats and trousers) by two tailors, John Long and William Jones. The cloth came from Jane Wigan of Bristol and James Dudden of Temple, but the haberdashery, such as "silktwist, staytape & canvas", binding, coat-buttons and pockets were supplied by the tailors. More than £36 was spent on clothing over a period of 18 months.

Before sinking could begin, the men were first given the important task of digging a sawpit. The accounts reveal the enormous quantities of timber that were needed in a coalpit, requiring a permanent carpenter, Joseph Hart, often assisted by his two men who were all paid at the high rate of 2s. 6d. per day. Although timber was sawn on site, the Sawyers, John Miles & Son, were not permanent and were usually paid by footage, but

were sometimes rated as carpenters at 2s./day. They were frequently occupied in felling, since much of the timber was found nearby in William Davies' own 'demesne' farm lands, such as Priston Copse, Ash Brake and Rockhill, which still exist today. Oak, Elm, Ash and Alder were all required, frequently in the form of 'luggs' or poles, but Elm for board and planks was also common. Other sources ranged as far as "Hinton", "Comtondando" and, for a load of deals, Bristol. More interestingly, large quantities of fir were supplied from Combe Down near Bath, including William Davies' local residence, Combe Grove. In the eighteenth century this area was famous for its extensive fir plantations, established by Ralph Allen as a landscape screen for his quarries. It may be that the number of these trees acquired for pit props by William Davies, somewhere around 200, could partly explain why none exist there today.

Opening the pit.

Within three weeks of breaking the ground, the men had penetrated 20 feet of red marl and had also completed a level, but from thereon the shaft had to be pumped continuously by four labourers and an agreement was made to pay the men 30s. a fathom "until they get through the Red Ground" (about 5 fathoms). Canvas, flannel and leather for "Pump mowls" were obtained from the sadler. Three weeks later a "water Wheel" was purchased for £28, followed by "a Bay Horse for the Wheel" as well as "2 Blind Mares bought at Gloucester Fair", each costing 14 guineas. How this pump worked is not entirely clear, but it appears to have been a crank-operated force-pump powered by a geared horse-wheel fitted with 84 cogs by the carpenter at 3d. a piece. It was immediately put to work and 2 boys were taken on as horse-drivers at 8d./turn, together with a horse-keeper at 12s./week. From here on the accounts include the costs of hay, straw, beans and oats obtained from at least a dozen local farmers.

On April 13, the accounts announce that the men had "began enlarging the pit" at 32s./fathom, a task which they seem to have completed in 3 weeks. Surface activity was also keeping pace; the Mason, James Biggs (paid 2s./day), had built a "house" (elsewhere called a "shed") which was duly thatched with 11 dozen bolts of helm. There was a limekiln and quarry a few hundred yards away on the north side of Conygre Brook (ST68226133), but most of the stone seems to have come from 'Breach' field (ST68066055) about 2 mile to the south below Pressbarrow Hill. Traces of workings on both sites are still visible today.

There were now several pumps installed and a large quantity of iron pumpshides & rods were brought from Litton. The latter were presumably obtained from Litton Coal Works, following the closure of the pits there, and George Vaughan's servant, Benjamin Golding, went there on three occasions in order to negotiate the sale. On May 7 they "began working the iron shides", which was none too soon, for on the 17th. "the pit filled with water after sinking 8 Fathoms 5 feet & Boaring 9 Fathoms 2 feet". For this emergency, two extra horses were hired to help at the pumps and on the 21st. the men "began working on the old pit". After 8 days the situation seems to have been brought under control when the extra horses were

laid off and on the 28th the men “began sinking the Water pit at £3 per Fathom, 5 feet by Six wide, and driving the Level under ground at 6s. per yard”. By June 2 the men had returned to the new pit to normal work

For the next four months the accounts suggest that the work had settled down into an uneventful routine and was not even affected by a miners’ strike which we know took place in that area during the summer months. Nor do they show any change brought about by the subsequent agreement for the regulation of miners’ wages made at Old Down on August 22 which was to be “adopted in the several collieries ...Camerton, Dunkerton, Lamma Field, Priston, ...and that the same be printed and dispersed at these collieries”. [“Coal from Camerton”, Neil Macmillen, pp. 6-7.] It is worth noting here that the area known as Lamma Field was from medieval times owned by the lords of Priston and treated as part of the manor. It appears to have been sold separately from Priston by the Earl of Egmont, probably at about the same time in the 1750s, and although the shaft there is evidently contemporary with Priston there is no evidence in the accounts of its existence. Again, like Priston, it seems to have enjoyed a short existence, but has recently been identified and examined by John Cornwell.

One significant change did occur after these events. From October 27 onwards George Vaughan took a much more active control of the coalworks and it is from this point that the collection of bills starts, most of the accounts now being settled directly by him. Another innovation is his introduction of an additional means of transport, which usually consisted of his team of wagon and horses together with William Davies’ 2 teams (plus another, possibly from Combe Grove). Each team consisted of 4 horses (or 6 for heavy loads such as the shides collected from Litton), costing 3 s.6d. per horse per day excluding turnpike tolls. These were now assisted by at least a dozen mules belonging to George Vaughan, usually working in teams of five or six at 14s. per day, which were mainly employed in hauling timber and stone and presumably accommodated at Priston Mill Farm. Mules would have been a familiar pack-animal, but the muletrain seems to be a unique feature perhaps adopted from overseas practice. Carnage expenses figure prominently in the accounts; six quarters of coal were obtained each month for use at the pit from neighbouring coalworks such as Timsbury Tynning and Dunkerton (presumably ‘Bengrove’ pit). For mortar, large quantities of lime were brought from Keynsham and coal ashes from Newton St. Loe, possibly from the steam engine at the pit there. The pit-head price of coal was 13s.4d./cwt, with an extra charge for hard coal.

The pace of work was also increasing and by the first week in December the first underground haulers begin to appear. During the last few months of 1792, at least 1,600 feet of rope was bought from E. Wilcox & Co., and sufficient depth had been reached for the occasional extra payment of ls./week for “letting down and puling up the men”. Extra pump-work was acquired in December and January, initially from one of the Timsbury pits, when wooden shides and ironwork (including a “Cast Iron Working Piece and Windfil”) were purchased for

£12.1.3 from Crang, Langford & Co., but the considerable sum of £106 was then paid to Messrs. Vagg, Dudden & Co. (probably from Bristol) for “Iron Shides, Rods, & c.”, followed by a further £13.16.0 on more pump shides from George Evans at the Welton works of Mogg, Crang & Langford. The installation and maintenance of this machinery were carried out by two ‘engineer’ blacksmiths (to be distinguished from the ‘farrier’ blacksmith). Some work was done by James Harding who seems to have been based at Mearns coalwork at High Littleton, but mostly by a certain Joseph Crew. Their bills are itemised in great detail with Cotterells, Quinots, spear-heads, Gudgeons, spring-crucks, bucket shoddings, snubbing bits, rapping plates and other specialised terms too numerous to mention here.

The ‘farrier’ blacksmith was a regular visitor to the pit whose bills were also itemised in detail, but mainly concerned with shoeing, horse-harness, maintenance of the men’s tools and odd repairs to the machinery. The farrier, James Bendy, was also something of a veterinary surgeon and from time to time was paid for “bleeding and drenching a horse” or “for drugs & dressing the Bay Meare’s foot”. At the beginning of 1793 the health of the horses seems to have become critical and for two weeks in February they were replaced by six of the mules to keep the pit dry. Not only was the farrier kept busy, with 6d. being spent on “1 pound of fresh Licker for the mare”, but, significantly, a replacement was also found for the horse-keeper. From hereon the horses received much more attention and on several occasions an expert, Josias Tyley was paid a guinea or more for the “keep & cure of a horse”.

By March, another “Coalpitt House” had been completed and roofed with helm and 300 spicks by John Harvey the thatcher. An extra 25 sheaves of helm were also bought (10d. each) for thatching 30 hurdles, but for what purpose is not stated, with 130 faggots (about 1d. each), possibly for the use of George Hulbert, a plumber, then engaged in installing and soldering 100 lb. of lead pipes. Below ground, there seems to have been good progress and at the end of April a pay bargain was made with the men “towards the Standing” or “for the Riding”. On May 17 a note announces “...Got to the bottom of the former Sinking at the depth of 84 Fathoms & 2 feet, where the Boring commenced, in hard rock, then fine Clift”. The change to boring is immediately reflected in the increase in the number of blacksmith’s bills for the “laining, steeling and dressing” of mattocks, drills and chisels. In the following week 582 ft. of tin pipes were bought at 5½ d./ft. from Daniel Partridge at Bristol, presumably for ventilation, and one half-barrel of FF. gunpowder from Bally & Hellicar of Bristol costing £3.11.6. Similar quantities of powder had been bought on two previous occasions, one of which, from James Rooke of Bristol, suggests that a ‘half-barrel’ contained 72 lb. These three purchases seem to have been sufficient for the whole enterprise.

It appears that a vein of coal had already been encountered at this time, as is indicated by a note on June 20 which announces “...Came to another Vein of very fine Coal of 5 Inches thick about 32 Fathoms in the boaring, under that hard Rock”. But all was not well and a further note adds “July 8, Wm. Chivers

left the work abruptly this Morning & declared in the presence of Mr Geo. Vaughan, & Son, Horler & others that he wished to have nothing more to say to the work, therefore would leave it, & accordingly went away". No explanation, unfortunately, is offered for his departure. As might be expected, there is a disruption in the regular accounts for a few weeks, but the above mentioned Aaron Horler, the chargehand, was quickly appointed in his place as Bailiff and the work continued unabated. Branching had started by July 21, being soon followed by several more announcements; "Aug 8th. The boring in the old Pitt was 7 Fathom which we got to the bottom off this day, and the whole depth is...90 fathom, 3 feet, 3 inches.... Aug. 12th. 3½ fathom before they got to the bottom they are driving a branch & were this day 17 yards in it to the East & 5 yards to the South & going on, they have met 15 Inches thick of Coal, but it varies in thickness. The Coal is very good."

At the time of these discoveries the work had reached a peak of activity, with more than 200 turns per week in operation by the middle of August. A loose-leaf note in the accounts identifies the veins of coal as the Withy Mills and Great Vein [upper Radstock Group] but there is no further mention of them and for the following three months branching was suspended. Boring also fell into a more regular pattern and seems to mark a period of consolidation. A permanent blacksmith, George Ayres, was taken on at 2s./ day and provided with a Smith's Shop equipped with a 32 inch Bellows and a 26 lb. Beck Iron bought from George Eaton of Bristol as well as 5 lb. of Blistered Steel and 33 lb. of German Steel. Some smithwork was obtained from Bath, such as a boring bit and bellows repairs, and it was possibly the source of the tools, nails, hinges, padlocks and other ironmongery bought from John Sottridge and James Bush.

The end of the operation.

Eventually, on November 2, comes the announcement "...Left off Boaring this day having come to very hard Rock again at the depth of 192 Fathom on the last Boaring". Despite a renewal of work on branching and the engagement of a stone-breaker in the repair of the horse-track at the pumps, the number of turns worked had fallen considerably by the end of the month. It is evident that the pit was being wound down. On November 14 the boring rods were hauled to Newton St. Loe and a week later a man was paid for "halling stuf out of branch The Trunks were removed from the pit at the beginning of December and stored in the "Cunegar House" (at the old pit), eventually to be sold later in the following year to the Dunkerton Coal Company for £7.7.0 ("42 Air Trunks at 3s.6d. each"). On Saturday, 18 January 1794 most of the men were paid off and on the 24th. four mules assisted in the carriage of the pump-rods to Priston village. The account finally closed on the February 1.

Postscript.

Whatever the reason for its closure, the pit was certainly not forgotten. Among the coal papers is a letter dated February 1840, presumably addressed to William Vaughan-Jenkins (then lord of manor and son of the above William Vaughan), from a certain John Lewton of Camerton. Lewton appears to have

been commissioned to survey Priston manor for its coal-mining potential and had inspected the old workings which he found to be serviceable, "walled to the surface, and, apparently, as perfect as when the workmen left it". He had also interviewed the coke-burner at Camerton, George Dando, who had "worked there the whole time it was sinking, till it was discontinued; he says they sunk 84 Fathoms & bored 14 fathoms through a vein of excellent Gr. V. coal, firm and hard, & 3½ ft. thick But on our examining the wark heap we found more satisfactory proofs than any vague reports could have furnished - we actually found a quantity of the Shale, with the fern & grass marks, which lies immediately above the Gr. Vein; a most certain & never failing proof, not only of the presence of coal, but of the near approach of the workmen to it, before they left off". Thanks to its good access to two roads and proximity to Bath, he was enthusiastic about its profitability, remarking that "-about 20 yards from the pit runs a brook, available to supply the Engine, & if necessary to work a water-wheel". Nevertheless, other documents among the papers show that by this time improved geological knowledge of the Priston fault was already suggesting that a better site might be found on the south side of Priston manor, ie. at Tunley, and eventually it was here that coal was successfully mined by a later descendant, Captain William Vaughan-Jenkins, in 1906.

Acknowledgement.

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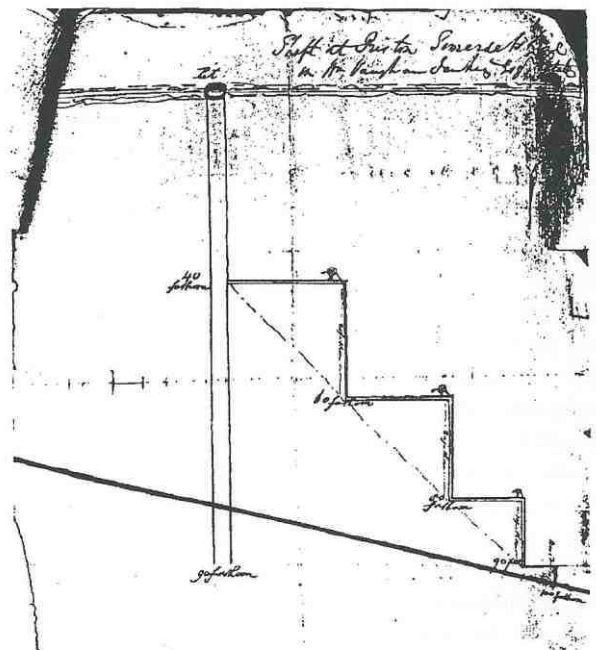


Diagram from the account book of the approximate stages in the sinking of the new pit