FARMERS VERSUS MINERS: A CASE OF POLLUTION

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Abstract: Conflict between lead miners and farmers was exacerbated in the second half of the eighteenth century by an increase in the reworking of old hillocks ("caving"), following the introduction of cupola smelters, which were able to smelt the lead dust, or smitham, retrieved from them. A court case brought against cavers in 1795 was won on the grounds of water pollution. The case papers reveal the depth of the antagonism between the farming and lead mining interests.

THE BATTLE GROUND

In the King's Field the feudal concept of crown ownership persisted in the case of minerals long after it had given way to the concept of freeholding and tenantry in the case of land. This anomaly, aggravated by the special privileges granted to the miners by the Crown, through the Duchy of Lancaster, gave advantages to the owners and shareholders of all sizes of lead mines which were a constant source of trouble. This was particularly so after the Parliamentary enclosures of the eighteenth and nineteenth centuries had brought thousands of acres of formerly common moorland into private ownership. Most lead mines were on the enclosed moorland. Conflict between miners and landowners and their tenants was endemic and many generations of lawyers made good livings from their legal battles. By the middle of the eighteenth century the possibility of conflict was enlarged by a side effect of the introduction of cupola smelters which, unlike the ore-hearth smelters which they had replaced, could smelt any grade of ore, down to the finest dust retrieved from old spoil heaps. "Caving", the retrieval of this dust (variously known as smitham, offal or belland), became more widespread, particularly as deep mining had become more expensive.

PAYING THE DUTY

The change in the value of low-grade ore brought about by the ability of the cupola smelters to deal with it, was argued in a prolonged dispute in the 1760s and 1770s between miners in the Wirksworth Wapentake and the lessee of the lead duties. Smitham, the finest particles left after the bing and peasy, or best grades of ore, had been isolated by the dressing process, or similar material retrieved from old hillocks, had been exempt from payment of lot – one thirteenth of all dressed ore - from the earliest days of mining. However the lessee of the mineral rights in Wirksworth Wapentake, John Rowles, signed an agreement in 1765 with fifty named mine owners under which he accepted a reduced payment of lot, which the mine owners agreed should be paid on all grades of ore (BM Add MSS 6684 ff127-128). In extending lot payment to smitham Rowles was emulating the success of the Duke of Devonshire, who had enforced the change on the owners of Portway mine at Winster, after accusing them of pulverising high-grade ore to avoid payment (BM Add MSS 6676 ff1-44, 50-90).

Rowles agreed to lower the rate of lot, from each thirteenth dish to each twenty-fifth, recognising that the duty was "too heavy & burthensome upon the miners, considering the great expense at which almost all their mines of value are now, & for near a century past, by means of soughs & fire engines, have been drained recovered or wrought". Making a profit from lead mining had certainly become difficult by the middle of the eighteenth century, and reducing the duty was probably necessary to persuade entrepreneurs, the "gentlemen adventurers", to invest in mining. However, the evidence presented in court proceedings provoked by this agreement revealed that Rowles's main reason was the same as the Duke of Devonshire's, namely that since it had become possible to sell smitham to the smelters at the same price as higher grade ore, miners had been making sure that there was plenty of it. The effect of the new dispensation was felt most heavily by the small-scale independent miners, whose output normally contained more smitham than the larger mines owned by the signatories to Rowles's agreement. It aroused great opposition.

FRANKLIN'S PAMPHLET

The decision to impose lot on smitham generated publications arguing both sides of the argument, notably a 43-page pamphlet of 1766, "Letter to a friend on the mineral customs of Derbyshire, in which the question relative to the claim of the duty of lot on smitham is occasionally considered, by a Derbyshire working miner" (BM Add MSS 6681 ff 335-338). Adam Wolley noted in his copy that he had been told that the "Derbyshire working miner" was Benjamin Franklin, and the "friend" to whom the letter was addressed was Anthony Tissington, of Swanwick. Tissington had been a real working miner and later mine agent, mine owner and barmaster of Matlock (Flindall, 2000). Franklin, the American inventor, soon to be a protagonist in the war of independence and joint author of both the Declaration of Independence and the United States constitution, often visited England and stayed with Tissington, who at the time was leading the campaign against lot on smitham. The "working miners" had heavyweight support.

Wolley showed which side he was on in a gloss on the pamphlet – "The information it contains is of a very superficial kind & the language does the Doctor no great credit. It was intended by Mr Tissington to rouse the interested passions of the common working miners to oppose a very just demand made on them by Mr Rowls (lessee of the dutchy) of lot on smytham."

The pamphlet argued that it was the work of the independent miners, hanging on to their small mines and always hoping for a lucky find, that kept the industry alive at a time when large undertakings were rarely profitable – the miners "sacrifice their whole lives in hope of what is attained by very few; but as some hit, all hope, and mining has from hence been kept alive". It denied that it was in the interest of miners to reduce the best ore – bing and peasy – to smitham, in order to avoid paying lot, and produced figures in an attempt to prove that the cost of turning bing ore into smitham was greater than the duty saved. It protested at the imputation of dishonest dealing by the miners – "I know no people equal to the miners in general, in benevolence, humanity and generosity; and if these, or some of them, should be the source whence honesty flows, perhaps we may be allowed our share".

THE LEGAL ARGUMENTS

Rowles obtained a decision by the House of Lords in 1766 and a subsequent decree in the Court of Chancery ordering that lot be paid on all grades of ore. Tissington, who was a partner in the Portway mine, and fellow share-holders in the Gang Mine and other veins in Cromford, Middleton and Wirksworth liberties, submitted their case to the Duchy Court in 1768. They argued that smitham, being difficult to produce and of little value, had always been exempt from duty.

The counter argument by Rowles was that this traditional situation had changed and that smitham was now bought by the smelters at the same price as bing and peasy ore. He claimed that the exemption from lot for smitham arose from a concession granted to poor miners who had recovered it from hillocks. At the time it was not worth the expense of dressing for buyers who bought ore for the smelting mills as it was "subject to very great waste and loss, but cupolas were about 40 years ago introduced into Derbyshire by which they smelt their ore without loss be it ever so small and they prefer smitham ore to any other sort". This had caused abuse of the exemption since the miners could choose how much duty ore to produce - in recent years the amount had fallen, while the amount of smitham had risen.

Tissington alleged that Rowles had refused to collect bing and peasy ore set aside at the Gang mine for payment of lot, demanding that the owners should also set aside the appropriate amounts of smitham. He denied that any fraudulent reduction of bing to smitham was going on, saying that such activity would soon be spotted by the barmaster. Rowles in reply pointed out that in large mines as many as 100 ore dressers were at work, making it impossible for the barmaster or anyone else to supervise the process. In any case it was no part of a barmaster's duty to supervise ore dressing and the miners insisted on dressing the ore in whatever way they chose, in particular "Tissington and his partners at Portaway Mine . . . did insist the miners had a right to dress their ore as they pleased".

In the event lot was reduced to one twenty-fifth, which presumably removed the incentive for the larger mines to carry out the laborious work of reducing high grade ore to dust. In the case of the small mines, whose output was mainly low-grade ore, and of the cavers, Tissington's argument prevailed and the old exemption held. A mine owners' committee, set up to negotiate with the lessee of the mineral duties, published a broadsheet in 1772 which conceded the probable disincentive to mining which lot payment on smitham would mean, and which would not be in the lessee's interest – "supposing he could establish his claim to lot upon smitham (which I hope he never will) it would not be in his interest to collect it" (BM Add MSS 6677 f66). Lot and cope accounts at Brassington in the 1790s show that lot was not being paid on "belland" there (DRO D2629Z1/1).

CAVING, BUDDLING AND POLLUTION

The widespread caving of old hillocks, and the buddling (washing) of the smitham recovered from them, was resented by land owners but for many years was not confronted in court. A link between the buddling of hillock ore and another point of friction, pollution, finally brought the matter to a head. The pollution of land or water adjoining mines was among the aspects of lead mining which regularly caused conflict between miners and landowners and tenants. "Bellanding" or making pasture or water poisonous to animals and people, was a constant complaint made against miners. Lead was at its most dangerous during smelting – the lane running past the smelter on Chesterfield Moor is called Belland Lane - but there were also hazards arising from washing ore, and a case was brought in 1795 against several groups of Wensley miners who had buddled mine waste by the river Derwent at Darley Bridge (BM Add MSS 6676 ff132-160).

There was no dispute about the facts. Several groups of Wensley miners had carted mine waste from hillocks at the Old Quaker mine to the bank of the Derwent above and below Darley Bridge and, in the course of buddling it there, had allowed slurry to run into the river. Most of the evidence concerned a group formed by George, Joseph and James Taylor, members of a family later to leave its mark in Millclose Mine (Warriner, 2000). The case was neither the first nor last in which miners were brought to court for polluting running water. In the late 1680s Sir John Gell II gave his opinion of buddling and pollution during the course of a dispute – "For buddling I do not know that there's any custom. It had been used by some, and I have heard that miners have been indicted for it, and the freeholders and occupiers of land are much prejudiced by it. It sets the cattle upon the belland, which is destructive to the cattle and horses and often kills them" (BM Add MSS 6681 ff140-141). Water pollution was alleged in a lawsuit brought in the 1690s by Sir John Harpur against the miners driving the Millclose Sough (BM Add MSS 6677 ff71-75) and in the nineteenth century an action against pollution of the river Manifold by an ore dressing plant caused the closure of Dale Mine (Porter and Kirkham, 1998). The difference in the Wensley case was that the charge of water pollution was used to attack the buddling of old hillocks, long opposed by landowners and tenants but never previously prosecuted.

The Wensley miners' buddling old hillocks, traditionally an activity carried on only by "beggars", to quote a witness in the case, has been cited as an indication of the poverty of the village miners in the 1790s caused by a combination of high corn prices, low lead prices and the effects of enclosure of common land (Wood, 1999) . In this respect it is significant that the plaintiff's brief included the opinion that the defendants would present the action as an attempt to prevent miners from making a living. The case has also been cited as illustrating the fact that improved washing and smelting methods had made buddling old mine waste more profitable than in the days when it had made only a meagre living for a class of men despised by the miners (Slack, 2000). At a time when mining proper had become less profitable, the traditionally despised, and easier, activity had become more acceptable to miners. In the words of one witness, buddling "is proceeding to alarming lengths throughout the Wapentake". Another witness testified to the "almost infinite" number of hillocks in Wensley which he believed would be taken for buddling if the Taylors won their case.

The case papers demonstrate the legal and practical difficulties in the relationship between miners and the rest of the community – while the lawyers expressed the landowners' distrust and animosity in courtroom language the Taylors gave short shrift to objections expressed on the spot by one of the riverside farmers. They insulted him and told him that if he did not go away they would come and plunder his house.

The Taylors and two other groups were indicted in the Kings Bench in 1796 for polluting the water to the extent that it could not be used "for household purposes" by people at Matlock and Cromford who relied on it. It was alleged that the Taylors had carted "500 cart loads of lead ore, 500 cart loads of zinc ore, 500 cart loads of stones, 500 cart loads of earth, 500 cart loads of dirt and 500 cart loads of rubbish" and had "moved, stirred about and washed" it in the water of the river Derwent, making the water "very muddy, filthy & corrupt". The judges must have marveled at the industry shown by the Taylors in carting 3000 loads, or even 500, especially if they knew the steep hill between Wensley and Darley Bridge. Lawyers representing tenants and landlords had discussed a number of likely avenues

to prosecution before bringing the case and had chosen the issue of muddying drinking water as the one most likely to succeed.

THE MINING LAWS

The defendants' case was expected to rest on the mining laws and it was noted that miners and barmasters had been successful in using the "custom of the mine" to argue cases before the court of the Duchy of Lancaster, often by bending the rules in their favour. The prosecution brief revealed the bitter resentment of the landowners at the activities of the miners. The mining customs, "it is pretty evident, have from time to time by artifice and chicanery been warped and extended to answer the sinister purposes of the mineral officers and working miners, and as their interest has in great measure been connected with that of the crown and its grantees, the earls and dukes of Lancaster, they have been almost uniformly till the end of the reign of Ch I supported in such sinister practices by the dutchy court of Lancaster, which appears to have made a many arbitrary decrees in favor of the miners against the landowners".

It was noted that since the restoration of Charles II in 1660, several of the cases brought by the miners to "their favorite court, the dutchy", had been decided in favour of the landowners. However, the Duchy court was still perceived as favouring miners and had increasingly been avoided by landowners bringing cases against them. This had been one of the main grievances in a petition which the miners had addressed to the Chancellor of the Duchy about the middle of the eighteenth century (BM Add MSS 6682 f212). In it they described the Duchy as "their dernier [last] resort for redress & protection", and complained that they "are forced to appear in courts & try their rights before incompetent judges ignorant of their laws & customes, to their utter ruin". The 1766 pamphlet has a quotation from the Book of Ruth on its title-page – "Boaz commanded his young men, saying, Let her glean, and reproach her not". Wolley, writing at about the same time as the Wensley case, revealed the landowners' opinion of caving by noting "This quotation is not very apposite to the subject of this pamphlet. It would apply with much more propriety in an apology for the offence of caving".

The relevant mining laws in the Wensley case were those concerning title to mines, washing ore and removing ore from mines. The plaintiff conceded all the mining customs except the right to take ore to the river but maintained that, even if this were shown to be permissible, the defendants had no right to pollute the water he used. Blackstone's commentaries were quoted to the effect that a smelting house which pollutes a neighbour's land is a nuisance in law and that it followed that any otherwise lawful act which damaged another person was a nuisance. Counsel's opinion noted that the miners' case in mining law was conceded by the landowner. Whether the hillocks were distinct from the mine from which the material had been taken "this case does not make necessary to be considered". Pollution of the meadows in the river valley was "too remote and speculative". He recommended injury to householders prevented from using the river water as being the best case to pursue.

The plaintiff's lawyers took this advice. However, while the case against the miners was concentrated on the pollution caused in the Derwent, evidence was also presented arguing that they had broken the mining laws in taking waste away from the mine site and using running water to wash it, and that the pollution caused by washing ore by the Derwent would in fact include the meadows since ore would be carried on to them whenever the river flooded. Care was taken to recruit mine agents and miners, as well as farmers, to provide evidence from their own experience and knowledge to put before the "ignorant" judges of the King's Bench.

TITLE

Buddlers of old hillocks had usually worked without permission from either the owner of the land on which they were working or from the barmaster responsible for granting title to the mine from which the hillock material had been raised. However, on the rare occasions when a group of buddlers had been threatened with a lawsuit they had "judged it expedient to make a friend of the latter". For his part, the barmaster was happy to grant title to the old mine "as it serves at once to increase his fees and extend his authority". One witness accused barmasters of readily making gifts of mines to buddlers "for the sake of the paltry fees". However, mining law was quoted to demonstrate that when title to a mine was withdrawn, everything above ground on the site of the mine, with the exception of the miners' coes (buildings), remained in the possession of the former mine-owner. The grant of the Old Quaker mine did not therefore include the old hillocks on the site, and buddling them was "never considered as fair mineral workmanship or sufficient to keep a mine in possession". In other words the barmaster should by mining law have removed the Taylors from the site once it became clear that they were concerned only with the hillocks and not the mine.

WASHING

The Wensley miners had begun by washing the hillock material on site but had soon decided that it would be easier to carry the material to the side of the Derwent than to carry water to their mine, which was dry. The landowner acquiesced in this. The miners, "(or more properly the host of Barmasters who are their privy council & grand advisors)", quoted the custom of miners being allowed access to the highway and water to wash their ore. Mining law, however, stipulated that sludge from washing should be emptied into "some convenient place within their quarter cord (which is a space of seven yards and a quarter, or the fourth part of a meer, on each side of their vein)" to prevent any pollution of the land outside the mine area.

A Wirksworth mine agent remembered ordering a large amount of low-grade ore to be taken for washing to a small brook at Wash Green and being prevented from working it there by the owner of adjacent land. When he argued that he was permitted by mining law to carry on as long as he caused no damage it was successfully maintained against him that it was illegal if damage was likely to be caused. He would certainly have washed the ore if he had not been prevented from doing so and as far as he knew the heap of offal was still where he left it.

A second Wirksworth mine agent, currently at Orchard Mine, had once taken ore to the New Bridge Brook and washed it there until the landowner, Charles Hurt, threatened an action against him because of the danger to his cattle. Even washing on site had to be without danger to surrounding land and he remembered paying £4-10-0d in compensation for a cow which had been killed by belland at Orchard Mine. Another case was quoted in which compensation was paid for cows killed by belland caught in drinking at the "wash gate at Ratchwood Mine" which should have been adequately guarded against cattle.

Another mine agent quoted a case of Ashover miners polluting the river Amber, which carried the lead residue downstream, causing the death of several horses and cows at Higham. A farmer at Mouldridge Grange described how buddlers had caused the death of seven of his cows. He had obtained a lawyer's injunction threatening the men with legal action and they had stopped their work. However, "being a set of beggars", they had not compensated him for his loss.

The fact that the landowner at Wensley, Sir John Harpur, had no

objection to the miners carrying out their buddling elsewhere did not alter the fact that the practice was illegal.

REMOVAL OF ORE FROM THE MINE

It was also argued that smitham was subject to the same prohibition on removal from the mine as high-grade ore, namely that it could not be removed from the mine until the barmaster had measured it and set aside the amount due to the holder of the mineral rights as payment of lot. Since lot was clearly not being paid on smitham this argument was presumably discounted.

POLLUTION

The plaintiff was a Matlock farmer called James Wright. His father testified that the family had watered their cattle and got water for their own consumption from the Derwent at Matlock Bridge for as long as he could remember. For almost the whole of the previous summer the water had been too muddy for them to use. When he "expostulated" with the Taylors they had quoted mining law in their defence. A Matlock publican and his family normally used the river water but had been unable to do so. The water was so muddy that he had often been prevented from brewing for two or three days at a time and once for nearly a fortnight. He had had to sink a well. Another witness had lived for more than thirty years at Cromford Bridge and testified that the muddying of the Derwent had reached his stretch of the water. There was testimony that the water was muddy nearly half a mile below Cromford Bridge.

VERDICTS

The Taylors pleaded not guilty. However, they "afterwards obtained a judge's order for leave to withdraw their plea of Not Guilty & to let the plaintiff take judgement by default". Similar not guilty pleas were entered and withdrawn by two other Wensley groups working at Darley Bridge. This comprehensive victory secured the farmers of the Derwent valley against pollution of their water supply by ore dressing. It did not, however, provide a precedent for use in future actions against caving, or in other pollution cases. Still less did it stop the continuing acrimony between the mining and farming interests.

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