ART. XIII. – *John Spedding's Accounts of Horses used in the Whitehaven Collieries etc., from 1715 onwards*

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IN the early 18th century, Whitehaven grew from a small trading town on the west coast of Cumbria to become one of the principal ports in the country. Building on the success of trade with the Colonies and in tobacco in particular, the resident fleet of ships and the local merchants were provided with an increased income when Sir James Lowther improved his collieries.[1] In this period, he ploughed an immense amount of capital into the sinking of new coal mines, improving the harbour works and laying out the foundations of an elegant town. Advised by the astute Spedding brothers, he invested in the latest technology of waggonways and steam engines to increase the output of his mines and provide almost a monopoly of coal to the adjacent city of Dublin.[2] By 1733, his relative Anthony Lowther was justified in commenting, "Whitehaven has certainly great reason to rejoyce at what you have done for them, for their support is the Coal Trade and without it the Town would certainly fall to ruin".[3]

While the use of Newcomen Engines reduced costs and accelerated the working of some pits, it is obvious from some accounts of John Spedding, Agent to Sir James Lowther, that horses were still important to maintain the colliery workings.[4] Horses of all types, mainly supplied by local farms, were used for transportation, drainage and haulage both above and below ground. Some mines were initially worked as adits and horses transported coals underground from face to main entrance.[5] The coals were then placed in panniers on the backs of small Galloway ponies,[6] each one carrying a weight of fourteen stone, and packed down to the quayside for shipment.[7] The exploitation of deeper bands of coal and the sinking of vertical shafts added extra tasks of lifting and drainage, and this emerges clearly in Spedding's accounts.[8] Horses were relatively cheap as a capital outlay, but they were costly to feed and keep and they provided a poor return in cash after use in heavy mine work, factors which must have influenced Lowther's experimentation with Newcomen Engines.[9] The early house cash books of 1715-17 noted the use of two to four horses employed each shift at Baxter, Miller, Grayson and Andrew pits, in lifting and also to pull carts. From 1737, however, with the sinking of deeper pits and an increase in coal production, moving coals to ships by pack pony was a slow and uneconomic process. Around this period, Carlisle Spedding laid wooden tramways from some pits. Parker may have been the earliest, but the cash books are missing for the period 1717-37 and the coals were moved by means of gravity down to the harbour, horses being used to return the empty wagons. An account of this type of movement was given by Monsieur Jars in 1765[10] showing it to be a hazardous process, but one horse could now do the work of twenty-four pack animals.[11] By that time, hurries or raised platforms also enabled the wagon contents to be tipped directly down into the ships' holds.[12] In 1737, a total of twenty-two wagon horses were engaged at Corporal, Saltom and Ravenhill pits, increasing to twenty-eight in 1739 and to thirty-two by 1752, when the pits in production were Parker, Saltom, Fish, Thwaite, Kells and Duke, with King pit in the process of sinking. Not all would be used purely for coal movement e.g.

Midsummer Quarter 1739 – "horse leading stones to Saltom Engine House"; or Midsummer Quarter 1748 – "leading 6 tons of Coals to Engine".[13] One account indicated that at certain peak periods, extra horses and wagons had to be obtained to move the coals to the ships, viz; 1746 – "to cash paid for leading coal in coops from the steath to sundry ships with your own horses and servants".[14] The value of horses on the wagonways was seen in the 1741 Michaelmas Quarter – "wages stopt from Burnyates Hasting by whose Carelessness a Horse was kill'd in the Wagonway at the Turn Rail near Watson Pit . . . 12s. 6½d.".

At the collieries themselves, horses were still used underground and this must have been heavy and debilitating work. In Spedding's account of horses bought for the Gins,[15] a gray horse, Captain, bought for £8 in 1728 was recorded as having been "wrought to death underground and dyed", while a black horse, Killerby, bought in the same year for £6. 16s. 6d. was "worn quite out and given to H. Anderson who lost a Cart horse by falling of ye Wharf". Another horse "Dyed of ye Farcy", a viral complaint attacking the lungs, similar to Glanders, and caused by poor ventilation and incorrect diet.[16] Stables were constructed at the pitheads for the horses used on the Gins. These machines were used in all deep collieries of the period to drain mines of water and raise and lower the ropes which held corves of coal and even the colliers themselves. A district in Whitehaven is still called "The Ginns" after the number of these machines employed there from at least 1704.[17] The type of Gin used at Whitehaven was described by Sir John Clerk on his visit to Saltom Pit in 1739.[18] It was a "Whim-Gin", where the horses turned a horizontal wheel, 18ft in diameter above the ginstead or circular walkway. The driver, often a retired collier or a gin-boy, rode on the shaft behind and the ropes ran over two pulleys fixed in a frame over the pit shaft.[19] Gins were cheap to build and might cost £25, with ropes another 5 guineas per year.[20] In Spedding's accounts, two horses were usually used each shift, and a letter from Sir John Clerk to Mr Gale in 1739 stated the horses went at "full trot every 8 hours, and 3 changes are employed in a day and a night".[21] According to an 18th century account from the North-East, a 60 fathom pit usually required four shifts of horses with two spares to operate efficiently on a twenty-four hour basis.[22] Such requirements would account for the long purchase list of animals – over 200 in all – represented in the Lowther Archives between 1728 and 1740, bearing in mind that a considerable number of the wagonway horses would have been hired from local carriers and would not be included on this list. By 1781, the Howgill collieries employed 80 gin horses, 69 tram and 24 bank animals.[23] The "Compleat Collier" advocated that only strong, healthy horses would be useful for this work and Spedding's list showed a large number of geldings between nine and eleven years old. Few stallions or "Stoned Horses" were mentioned, reinforcing the North-East opinion that "they are more unruly and ungovernable". The average price per horse on Spedding's account lay between £6 and £10, bearing a great similarity to the recommended price in the "Compleat Collier". Cheaper animals would not have lasted long, and only four Whitehaven horses cost between 10s. and £2. The list included four blind horses, but this was no handicap either in the gin traces or even as wagon horses. Animals were often sold on after heavy use, and prices indicated they had very little life left and were almost worked out;

	Bought	*Price*	*Sold*	*Price*
A black horse	1729	£7. 6s.	1731	19s. 6d.
A bay horse	1730	£5	1733	£2
A black horse	1730	£3. 10s.	1731	19s.
A black horse	1730	£4. 2s. 6d.	1733	£1. 5s.
A bay gelding	1730	£12	1740	£1. 4s.
A bay gelding	1731	£7. 4s. 6d.	1740	£1. 5s.
A gray gelding	1733	£5. 10s.	1740	£1. 9s.

Some of these animals were over twenty years old when finally sold at these low prices but others gave no financial return. In Spedding's list, ten died of unspecified causes, two from disease, one underground (see above), one killed in a cart at Moresby in 1739, two killed in the Gill at Whitehaven and one killed in the wagonway in 1739. According to the House cash books, horses were also used for drainage operations in pits with problems of flooding. From 1738-42 there were references to winding water at Scalegill pit "in frost and dry weather", while in the Christmas Quarter of 1749 this pit was subject to a "Great Flood" which required forty-four double shifts and forty-one single shifts of draining between October and December in an attempt to render it suitable for working. It seems unlikely that it was ever productive again, as there was no further reference to Scalegill in the cash books.

The health of horses was important in the maintenance of a reliable work force and the flyleaf of Spedding's cash book for 1742-6 included a list, dated May 1743, of "Druggs Propper to be provided for the Horses" (Appendix I), with various substances for tonics, stimulants, linaments and narcotics. Spedding's list of over 200 horses included animals which were not intended for colliery work, but to be used at The Flatt.[24] Some were acquired from local dealers and the names of Fletcher, Appleton, Penrice and Ormandy appear regularly. One horse was bought from a traveller going to Ireland in 1738, possibly as a payment of some sort, while three instances were listed of horses deliberately bought from away e.g.

> 1739 6 bought at New Castle by Joseph Penrice on orders. Expenses £3. 14s. 3 bought at Kendall by James Gorton. 2 bought in Yorkshire by D°m. Expenses £2. 13s. 6d.

Spedding also carried on some horse trading and he made a profit on five beasts, and also exchanged many others, certainly to his advantage. The most expensive horse cost £18. 18s. in 1741, and was a five year old black mare called Beauty bought from William Turton. Some of the choicer animals were recorded as being "taken to London for Coach", obviously for Sir James Lowther's personal use, while an old coach horse and the "old London Stallion" were pensioned off at Whitehaven. Spedding also had a small breeding programme at The Flatt, but the Great Gray mare recorded as a brood mare in 1728 was sold to a Lowlands man for only 14s. when her breeding days were over. Two acquisitions were recorded as heriot horses. These were taken by Spedding in lieu of debt on the death of the owners. In June 1733, a bay horse was taken on the death of William Nicholson of Woodhouse and in September 1738, a black mare from the estate of Christopher Hare. The latter was more valuable than the debt and Spedding paid £5 for it – to little profit, as it was killed a year later on the wagonway! Names of horses

were inserted on the list and these show a surprising range. Many were named after the vendor – Wilkinson, Glaster, Ormondy, while others have place names, perhaps indicating their origin – Stockbridge (from Newcastle), Hayton, Wediker, Seascale. Nicknames described the appearance and temperament of the animals – Mouse, Sorrel, Gray Pate, Crookshanks, Humpback, Shapeless, Boney, Dragon and Stag.

The collieries and estates of Sir James Lowther must have provided a steady income to horse breeders in the vicinity of Whitehaven in the 18th century. Turnover would be fairly rapid in the case of the colliery animals, but the careful lists and accounts of John Spedding showed that a cash return was possible even from the most worn-out animal, and the finest horses were channelled to Sir James in London. Perhaps the letter by Lord Lonsdale in 1733 might also be interpreted to include the local horse suppliers; "The Improvement you have made to your Collierys must be a great advantage to the Town and occasion the Imployment of a much greater number of people . . .".[25]

Notes and References

[1] J. V. Beckett, *Coal and Tobacco* (Cambridge, 1981).
[2] W. H. Makey, *The Place of Whitehaven in the Irish Coal Trade 1600-175* (London, 1952).
[3] Cumbria Record Office, Carlisle, D/Lons/W2/3 (July 24 1733).
[4] CRO (Carlisle), D/Lons/W3; D/Lons/W7/1.
[5] J. Nicolson and R. Burn, *The History and Antiquities of the Counties of Westmorland and Cumberland*, Vol II (1777), 44.
[6] W. Hutchinson, *A History of the County of Cumberland*, Vol II (1794), 66. Probably the native Fell Pony which averages 13 hands but is of enormous strength and has been used as a pack animal for centuries.
[7] Engraving *South-East prospect of Whitehaven* (1642).
[8] CRO (Carlisle), D/Lons/W3. No. 67-71. House Cash Books.
[9] Baron F. Duckham, *A History of the Scottish Coal Industry*, Vol I (1970), 107.
[10] G. Jars, *Voyages Metallurgiques*, Vol I (1794).
[11] Hutchinson II, 67.
[12] CRO (Carlisle), Engineering and Architectural Drawings. Sections showing loading coals from hurries in the 18th century.
[13] CRO (Carlisle), Spedding's House Cash Books, D/Lons/W3.
[14] Sir James Lowther was being paid from the colliery accounts for the use of his horses and men from the Castle.
[15] CRO (Carlisle), D/Lons/W7/1.
[16] Lt. Gen. Sir F. Fitzwygram, *Horses and Stables* (1894), Ch. 29.
[17] CRO (Carlisle), D/Lons/Plans. Map of Lowther estate and collieries (1704). The sketch indicates circular Ginsteads.
[18] W. Prevost, "A trip to Whitehaven to visite the coal works there in 1739", CW2, lxv, 307.
[19] E. Sarrab, "A representation of a Coal-Pit working", *London Magazine* (Jan 1765). I am indebted to Dr Stafford Linsley for this account.
[20] Scottish Record Office GD 18/955. MSS Clerk of Penicuik.
[21] Hutchinson II, 62.
[22] J. C., *The Compleat Collier* (London, 1708), 32-3.
[23] R. Galloway, *Annals of Coal Mining and the Coal Trade*, Vol I (1971 reprint), 354.
[24] Sir James Lowther's Castle at Whitehaven.
[25] CRO (Carlisle), D/Lons/W2/3 (July 18 1733).

Appendix I

May 1743
Mr Park[rs], Acc[t], of Druggs Propper to be provided for the Horses

Seeds	
Fennugreek, Anniseed, Fennel	Each 3lb
Roots	
Birthwort	2lb
Ellicampane	
Gentian	1lb
Liquorish	1lb
Rosins	
Afsafoetida	½lb
Myrrh	¼lb
Turpentine Venus	3lb
Camphire	¼lb
Burgundy Pitch	4lb
Powders	
Termerick	1½lb
Tiapenta	1½lb
Liquorish	1½lb
Grains	
Madder	1½lb
Ginger	1lb
Oyls and Oyntm[ts]	
Oyle Camomell	1pt Amber 1 Gill
Nard, Swallower, Peter, Spike	Each 1 pt
Oyntm[t] Rayes, Dialthia	Each 1lb
Stone Brimstone	8lb
Vertgrease	2lb
Bolearmany	6lb
Castile Soap	1lb
Black Soap	1lb
Mediedate	2lb
Ivory Shavings, Hartshorn	each ½lb

Glossary

Fennugreek (Trigonella foenum-graceum) Used medically for bronchial complaints.
Aniseed (Pimpinella Anisum) Oil from seeds used as a drug to stimulate gland secretion.
Fennel (Foeniculum vulgare) Aids digestion, and the seed oil can be used for a disinfectant. Compresses of fennel were used for reducing inflamation.
Birthwort = Bistort (Polygonum bistorta) Root used for diarrhoea and mouth infections.
Ellicampane = Elecampane (Inula Helenium) Root used to ease coughing. Recorded from Medieval times for reviving horses suffering from exhaustion and to renew appetite.
Genetian (Gentiana lutea) Used to promote appetite and cure digestive problems.

Liquorish = Liquorice (Glycyrrhiza glabra) Works on coughs, lung and chest problems and relieves mucous congestion.
Afsafoetida = Asafoetida General medicinal use.
Myrrh Medicinal gum.
Camphire = Camphor Breathing problems.
Burgundy Pitch Obtained from the Norway Spruce and used in plasters.
Termerick = Turmeric (Circuma longa) Used as a colouring.
Madder (Rubia tinctorum) Used for rashes and skin problems.
Ginger (Zingiber officinale) Soothes coughs.
Oyle Camomell = Camomile (Anthemis nobilis) Disinfectant or bitter tonic.
Nard = Spikenard (Nardostarchys jatamausi) An aromatic ungent.
Stone Brimstone = Sulphur Used on plasters.
Castile Soap Olive oil and a solution of caustic soda.
Hartshorn An ammoniacal solution made from deer's horn.
These are only suggestions as to the use of some of these herbal remedies. I am indebted to the Dodd family of Lamplugh for this information.