

ART. IX.—*An Eighteenth Century Company Promoter.*
By F. J. MONKHOUSE, M.A.

AT the beginning of the eighteenth century much of Cumberland, including the Parish of Alston and most of the Keswick district, belonged to the Radcliffe family, the heir of which held the title of the Earl of Derwentwater. The ill-starred and injudicious participation of Francis Radcliffe in the '15 Rebellion resulted in the sequestration of the family estates, and for a time they remained in the custody of the Crown.

But in 1735 the question arose of the necessary funds for the completion of the Royal Hospital for Seamen at Greenwich, originally founded as a monument or a mark of gratitude to England's sailors at the victory of La Hogue. As a result of the financial position, the King sent a message to the House of Commons

“ . . . recommending to them, to make some provision for perfecting a work of so much honor to this kingdom; and which had before received frequent marks of the regard of that House”*

As a result of the King's wish and of the favourable feeling of the House in this matter,

“ . . . it was resolved upon in Committee that the rents and profits of the forfeited estates of the late Earl of Derwentwater should be applied towards finishing and compleating the Hospital; and when that should be effected, towards maintaining the Pensioners; and an Act accordingly passed for that purpose, and for applying in like manner the money which had been received on account of the said Estates, and then remained in the Exchequer, amounting to 7182 pounds thirteen shillings, after paying the interest and arrears of the incumbrances then due”†

* House of Commons Journals, Vol. 22, p. 432.

† *Ibid.*, p. 458

By 1749 the various outstanding liabilities upon the estate had been discharged, and in 1775 the Commissioners and Governors of the Hospital were incorporated by Charter. The wise and generous landlordship of the estates undoubtedly did a great deal to improve their value, especially in the case of the mining areas. Westgarth Forster, the eminent mining engineer, wrote in 1821 in a dedicatory introduction to his treatise on lead-mining,*

“ You, my Lords and Gentlemen, undoubtedly of all others, have the best claim to a work of this nature, are most justly looked up to as the encouragers of the industrious miner, and whose judicious system, generosity and benevolence, have been so conspicuous in promoting the welfare and good of the mining districts under your direction ”

The Commissioners of the Hospital, on taking over the stewardship of the estates in 1736, evidently intended to do so in a thorough and business-like way, as evidenced by the detailed and carefully kept account-books. These various records are contained in a single bale in the Public Record Office among the Admiralty Papers.† They consist of one leather account-book and eight paper-backed ones. Several of the latter are identical, stating in full for successive years the Rent-roll of all the estates. The principal manors are first given, then the names of every farm, their tenants at Mayday, 1737, their present rent, an estimate of the future, a list of shop-rents, mill-rents and the rents of the lead-mines, and a variety of miscellaneous data. The account-books for 1738, 1739, 1741 and 1745 are included in the bundle and are largely a re-statement of the rents paid annually by the tenants, with notes on new tenants, land improvements, etc.

* Westgarth Forster “ A Treatise on a Section of the Strata from Newcastle-upon-Tyne to Cross Fell.” (1821).

† Catalogued “ Adm. 79.”

The first work undertaken by the Commissioners was to make a careful

“Rental and Survey of the Derwentwater Estates as Lett at Mayday, 1736, with the computed Value per Annum, and as Lett and to whom at Mayday 1737.”

The total rent-roll, with details of the Cumbrian portions of the lands, was given as follows:—

	£	s.	d.
Total Rent of the Derwentwater Estates	6328	9	8 $\frac{3}{4}$
Rent of the Manor of Keswick	281	3	3 $\frac{1}{2}$
Rent of the Manor of Alston	354	14	4 $\frac{1}{4}$

Beside each entry is a note, giving an estimate of the value, correct to the nearest farthing (!), in future years. The total estimate was £8214. 10s. and 10 $\frac{3}{4}$ d., a rise of £1886 1s. and 2d., a percentage increase over the rents at the time of the survey of approximately twenty-three. The rents for each estate and farm showed a small all-round increase, with the exception of a few “Antient Farm Rents” which seem to have been fixed immemorially and were therefore held sacred by the assessors, but the chief rise was in the case of the lead-mine rents of Alston Moor, namely, from £200 per annum to £1000 per annum, or a percentage increase of four-hundred, and almost one-half of the total increase for the whole of the estates. The survey stated:—

“ Lead Mines in an Average have been ab^t 200*l* for some years, tho’ formerly were from 1 to 3000*l* and if Lett and wro’t briskly may afford 1000*l* or 1500*l* per Annum but shall reckon it only 1000*l* ”

Lead mines in the Keswick neighbourhood, which, together with the copper-mines, had been worked so extensively by the Germans in Elizabethan times, were dismissed with the entry

“ Lead Mines may be worth 20*l* os. od. ”

There is no record of any attempt to improve the output and value of these mines. The only other reference to

mining activity is the estimated rise in value of a colliery of unstated location, tenanted by a Mr. John Stephenson, from £10 to £20.

The main interest of this short study is the lead mines of the Moor of Alston. Situated in the valleys of the Upper South Tyne and its tributary the Nent, or scattered about the limestone hills to the east of the steep Cross Fell Escarpment which bounds the Northern Pennines on the west, these mines have had a long history, having been worked at least from the reign of Henry II.* Each individual mine has had a chequered career, long periods of idleness being followed by a renewed effort by an individual or a small concern with capital, energy or increased technical skill, until the amounts of ore obtained were insufficient to make the enterprise profitable, or until increasing physical difficulty outran contemporary mining efficiency, when the working would again be abandoned.

In 1736 twenty-five individuals or concerns had leases and were working fifty-one mines.† Of these the Quaker Company‡ held three (Browngill, Blaygill or Blagill, and Thoughtergill), Mr. Alderman Ridley held several of the productive Nentsberry veins, and Sir John Myers held among others the ancient and famous Fletcheras or Fletchers Mine. On August 24th, 1736, thirty-one mines were advertised to be let by the Hospital,§ and on the list of workings were stated the number of washers and miners at each, totalling nineteen and one hundred and sixty-two respectively. Ten of these mines which had no washers or miners were presumably in a dormant state. Proposals were received from a number of concerns, and for some mines there were as many as seven applications.

* See the Pipe Rolls, given in the Victoria County History of Cumberland.

† W. Wallace. "Alston Moor." Appendix II.

‡ Otherwise and later known as the London Lead Company and the Governor and Company.

§ Wallace, *Ibid.*

Colonel George Liddell (or Liddle) applied for seventeen, the Quaker Company for five, and a number of individuals for one or two. The Commissioners finally decided, notwithstanding the number of applicants for leases, that

“ . . . : The Lead Mines are lett on Lease to Geo: Liddell Esquire and Partners for twenty-one years as follows Viz. To pay for Peatstack Hill one-third Dues, And for all the other Mines one-fifth Dues”

There were two exceptions to Liddell's monopoly. The Quakers were given the lease of Blagill Mine and apparently prosecuted the workings vigorously, paying dues of one-fifth of lead-ore won. A certain Mr. Hayley obtained the lease of Carrs Mine, paying a similar due. These latter concerns sold their ore to Colonel Liddell who smelted it. It would seem that the Commissioners of the Hospital retained one mine for their own use, perhaps to estimate future prospects of profitably working the whole Moor, and also sold their ore to Liddell. This mine is not named in the report, but from indirect evidence it would seem to have been Rampgill, as it is not given in Liddell's list of his mines. It does not seem to have been a success, as in 1739 Liddell took over the lease of the mine himself.

The detailed account of Liddell's effort is contained in a small note-book, almost filled with beautifully clear writing and figures, obviously written by himself.* The title on the cover is “ Lead Mines Computations &c.,” and the contents are arranged as follows.

1. A list of open and tried lead-mines, with the number of men employed at each.
2. A list of untried mines.
3. A calculation in very great detail of the cost of working open mines, the quantity estimated to be obtained annually, and the profit it was expected to yield.

* On page 49, Adm. 79, 35, in the same writing as the rest of the account book, is stated, with reference to the minor partners in the scheme “ The Sums over against the share I propose to give (and run all the risks myself)” and is obviously written either by Liddell or an amanuensis.

4. A computation of the cost of producing one fother of lead in this and succeeding years.

5. A computation made by George Liddell and Hugh Boag of the profit made when the dues payable varied from one-eighth to one-half. The exact profit was worked out for each fractional due, and was evidently computed before their lease application was accepted at one-fifth, with Peatstack Hill at one-third.

6. A computation made of the cost of carriage of ore, peat and finished lead.

7. A list of tenders received for the erection of a smelt-mill and other buildings.

8. A list of mines and miners' wages, apparently taken from pay-bills.

9. A list of intending adventurers and proprietors and the number of shares held by each.

10. The results of various assays of ore for silver, and various experimental smelting processes.

11. (Several pages on the prices of foreign and English wheat. Liddell seems to have been a business man of many interests).

12. Various metallurgical recipes, including a method of making black flue for assaying.

13. A summary made on Ladyday, 1738, of the operations of George Liddell and Partners since the enterprise began some eighteen months previously.

In the first section a detailed report is given of each vein, the direction in which it appeared to run, description of past workings and future prospects, and the number of pickmen, labourers and washers employed at each. This section gives ample evidence, not only of the thoroughness and enthusiasm with which Liddell was embarking upon his ambitious scheme, but also of the fact that he was a mining surveyor of no ordinary skill. An example of such an entry is as follows:—

“Peastack Hill. West of Nent. N.B. The Shaft where they now Drawe the Oare at is East of the Workings about 62 Yds. The Shaft is 19 fathom Deep. There is a Drift Set out at 15 fathom from the Top and Runs 80 Yds. to the first Gygg 4 fathom deep and then to the Second Vein or Drift 20 Yds. to a Second Gygg at 4 fathoms Deep more, and then the Working or Drift at 12 Yds. further, all this was done to stop the Water from the last. They have Cutt a Cross Cutt out of the Shaft bottom abt 5 Yds. and these is sinking into the Low Limestone to Try if that Sill will take the Water they had sunk abt 6 fathom and is every day Expecting to find the (Ye Sound) Sill in which if Water will goe off, but if it does not goe off these will be oblidged to bring up a levell abt 160 Yds. and may be done. The Vien is $1\frac{1}{2}$ Foot wide in some places, one foot in others and but six Inches in others. She Dips to the West and Seems as if She would be Cutt off with a Cross Vein. They leave nothing above head but under foot they doe not know how much. It pays per Bing 1*l* 1*s*. . . .”

In all, Liddell listed twenty-six “open and try’d” veins, at which were working one hundred and twenty-one pickmen, twenty labourers and twenty-six washers, while at Blagill, where the Quakers were working, there were twenty pickmen, “besides washers and labourers.”*

Then followed a list of “. . . . Several Veins Untried 26 April, 1767. I mean no men begun to Work at them” with no descriptive details, and sixty-eight listed in all.

The next section was very detailed and comprised

“. . . . A Computation of the whole Expense of working the open Lead Mines in the Derwentwater Estate, what Quantities to be annually raised, and the profit it will Yield, Computing at 14*l* per Fodder”

His estimates were worthy of the glowing prospectus of a modern company promoter. Assuming the annual

* These 26 “open and tried” veins were Coat Cloathe Hill, Thorngill, Lough Vein, Goeing Gill, Cocklake, Nentsberry Green Ends, Middle Vein, Nentsberry Hags, Brownley Hill, Goodam Gill Moss, Fair Hill, Redgroves, The Carrs, Middle Cleugh, Long Cleugh, Cowslitts, Peatstack Hill, Brighill burn, Longholehead East End and West End, Brownhill, Thortergill, Green-gill, Gallygill Syke, Fletchers and Regroves.

yield for the first two years to be 3200 bings of galena, he tabulated his results as follows:—

Veins	Bings raised.	Dues.	Bings.			Profit.			Total.		
			due.	neat.	Fodder.	per bing.			profit.		
						£	s.	d.	£	s.	d.
Peatstackhill &											
Brighillburn	500	at $\frac{1}{2}$	100	400	80	6	0	10	483	6	0
Ditto.	250	at $\frac{1}{3}$	83 $\frac{1}{3}$	166 $\frac{2}{3}$	33 $\frac{1}{3}$	4	15	10	159	14	5
Greengill	450	at $\frac{1}{3}$	90	360	72	6	10	0	435	0	0
The rest of the mines	2000	at $\frac{1}{3}$	400	1600	320	6	10	0	1933	6	8
Total	3200	at (—)	673 $\frac{1}{3}$	2526 $\frac{2}{3}$	505 $\frac{1}{3}$				3011	7	9

His profits for future years as the enterprise extended were estimated as follows:—

		per annum.	£	s.	d.
First two years	.. 3200 bings per annum.	Profit	3011	7	9
Next three years	.. 3300 bings per annum.	Profit	3234	0	0
Next five years	.. 4500 bings per annum.	Profit	4501	9	0
Next five years	.. 5600 bings per annum.	Profit	5558	18	8
Next six years	.. 6450 bings per annum.	Profit	6419	18	0

The grand total profits to be won during the twenty-one years of the initial lease was no less than £104,544. 11s. and 10d. How far this optimism was justified will be seen later. He added detailed figures for Peatstackhill and Greengill Mines, and obviously tried to attract the small speculator by indicating the probable profit derived from smaller shares in the enterprise. For example, the profit for the twenty-one years at Peatstackhill was estimated to be £21,362. 14s. and 5d., with an annual average of £1068, (strictly speaking, £1017. 4s. and 11d.), while shares of 1/12th, 1/24th and 1/48th would produce an average annual profit of £89, £44. 10s., and £22. 5s. respectively.

His profit of £6. 0s. and 10d. per fother during the first two years was ingeniously calculated as follows:—

	£	s.	d.
“ Raising 6 $\frac{1}{4}$ Bing at 15s., of which 1 $\frac{1}{4}$ B. for Dues,			
rests neat 5 B. and 5s. per Bing on 6 $\frac{1}{4}$ B. for Dead			
Charge
			6 5 0

Leading 5 Bing to the Mill, computing ye Distance 2 Miles and a Horse for 5 Months to go 4 times a day and for 3 Months 3 times a day at 10d. per Bing ..	0	4	2
Smelting 5 Bing computing 1 Hearth at double Shift will Smelt 12 Bing a Week and will be managed by a Smith and Labourer in each Shift will be 2/6 Bing and 7/6 for Fuel and Wear or Tear	0	10	0
Carrying 1 Fother of Lead to Newcastle and Tolls	1	0	0
Total Expense per Fodder	7	19	2
When Lead sells at 14l. per Fodder, Profit	6	0	10 "

He also added hopefully:—

“ If there is any Silver extracted ye Profit thereof is to be added Silver suppose in a Fodder in an average 12 ounces at 5/8, total 3l. 8s. od.”

Much thought was expended on each individual item in the expense sheet. For example, referring to the question of fuel, Liddell wrote:—

“ The values of the Peats for Smelting Should be Enquired into for Mr. Emerson told me that 3 Cart-Load of Peat would Smelt a fodder Lead, and if can be bought at 12d. is only 3s. So that 2/6 will be saved in Each Computation if that is true”

(Later) “ 3 Carts of Peat and a Load Coales will doe in an Average”

Similarly, costs of transport were investigated thoroughly.

“ Carriage of the Lead from the Mill at Nenthead to Blaydon or Swalwell viz.

Ten Horse is Reckoned to Carry a fodder which is 16 stone and 11¼ lb. Each Horse, and at 11d. per Horse from ye Mill to Redgate Head	0l.	9s.	2d.
From Redgate Head to Swalwell in Weardale at 7d. for every 1½ cwts. or something more than 4½d. per cwt. or a Fodder is 14 times 12 Stone at 7d.	0l.	8s.	2d.
Total	0l.	17s.	4d.

This estimate was later revised as follows:—

“ Carriage of Lead to Redgatehead	0l.	9s.	2d.
Carriage of Lead to Newlands	0l.	4s.	1d.

Carriage of Lead to Crookgate	ol.	2s.	9d.
To Team, Industry, and Waykeeping	ol.	1s.	od.
Total	ol.	17s.	od.

Having produced this elaborate and extremely attractive prospectus, Liddell looked for his partners and apparently had no difficulty in finding them. He divided the share capital of the mines into ninety-six parts, of which he kept seventy-four himself, sub-letting twenty-six of these to individuals who worked under his direction. His partners took the remaining twenty-two shares, to work at their own risk, paying to Liddell an annual sum of £280 for the twenty-two shares, an average of £10. 15s. and 5d. per share. The total share capital of £1032 was carefully estimated to cover the annual lease-payment of £1,000 agreed upon between Liddell and the Hospital. The twenty-two shares were allocated as follows:—

Mr. R. Ellisons	three shares.
Mr. Hicks	two shares.
Mr. Gilpin	two shares.
Dr. Lowther	three shares.
Jno. Airry, Esq.	two shares.
Mr. Thomas Airry	two shares.
Mr. Edw. Hinton	three shares.
Mr. Jno. Hall	three shares.
Mr. Jno. Carr	two shares.

The enterprise then got under way. Contracts were advertised, tendered and accepted for a smelt-house, a refining house and other buildings and the equipment thereof.

	£	s.	d.
“ Bargains made for building a Smelt-Mill viz.			
Let Joseph Archer and Thomas Yeates the Win-			
ning of Slates for Covering one side of the House at			
30s. per Room. Each Room to be 3½ Yds., 7			
Rooms	7	0	0
Mr. Emerson will furnish Slates for the other half ..	7	0	0
Let Thomas Forster the Wheele to make and Bellos			
Frames and hanging for 4 Harths and all other			
things belonging to the Works	15	0	0

Let John and Thomas Watson all the Slates to lead from finley fell and Killup	14	0	0
Let Peter Muncaster and Nicks Lee the winning, Leading and walling all the House and Wheelehole and plastering the Chimneys, Casting the Found- ations of House and Wheelehole for	56	0	0
Richard Fetherston offered to take all the Carpenter Work, Saweing and Hewing and the Chimneys and Cases and 4 Windows, Saweing the Wall plates etc. (Slates he has been so empowered). The Laths is to be Included of Oake. (N.B. Lowest tender of five offered)	12	0	0
Total	110	0	0

Then came a variety of contracts for "Iron Works,"
hoppers for lime, timber, nails, making water-courses,
"Gudgeons and Screw-bolts, etc.," totalling 95 pounds,
5 shillings. In addition, there is an entry of

	£	s.	d.
" Ironstone for three Hearths and bringing it there cost 63 <i>l.</i> 6 <i>s.</i> 6 <i>d.</i> and 4 Pairs of Bellows with Carriage 54 <i>l.</i> Total	117	6	6

The total expenditure on these works as stated was
£325. 1*s.* and 6*d.*, but there must have been other pay-
ments, as in the financial summary at Michaelmas, 1738,
capital building charges were stated to have been £900.

Liddell calculated that the four hearths of the Smelt-
Mill would each at double shift smelt twenty-four fothers
of lead per week for forty weeks a year, each producing
960 fothers, or a total production from the whole house per
year of 3840 fothers. The Refining House had four
furnaces, but returns were estimated on a basis of three in
operation. Each would refine six and a half fothers per
week for forty-six weeks, totalling 700 fothers, or a total
annual output of the house of 2100 fothers. The reducing
furnace in the new Reducing House (which cost a further
£150) would reduce sixteen and a half fothers a week for
forty-six weeks, totalling 760 fothers.

How did this elaborately conceived enterprise fare?

The account-book gives the result of the first eighteen months' operations up to Michaelmas, 1738. The results are divided into six periods or "pays" namely Midsummer, Michaelmas and Christmas, 1737, and Ladyday, Midsummer and Michaelmas, 1738. During that time Liddell had working for him 133 workmen, including 95 pick-men, 20 labourers and 18 washers, while the pay-bill for three months, including both wages and working costs such as tools, candles, etc., was £224. 5s., or an annual pay-bill of £897. The total amount of ore raised during that period was $865\frac{5}{8}$ bings, of which $215\frac{1}{8}$ bings were turned over as dues to the Hospital, representing in part $\frac{1}{5}$ th and $\frac{1}{3}$ rd dues. The net $650\frac{1}{2}$ bings for eighteen months, giving an annual average of about 433 bings, compares unfavourably with Liddell's estimate of $2526\frac{2}{3}$ bings for the first year's working. The chief mines in order of production to date were Peatstackhill, which produced more than six times the next highest producers, Thorngill, Brighillburn and Browngill. Seven mines produced nothing and six others under ten bings each, although all except two were employing some men. The costs of sinking and drifting were exceptionally high, showing that the workings were very much in the early opening-up stage.

The concern also bought $150\frac{1}{2}$ bings from Thos. Hayley, Esq., and $160\frac{3}{4}$ bings from the Hospital Commissioners, who were still mining Rampgill. The total disbursements of the Company were £6333. 16s and $9\frac{1}{2}$ d., while the total receipts at the maximum market price for lead and silver could not have been more than about £1200. While over £900 was spent on capital building charges, the financial position was hardly as satisfactory as Liddell's estimated first year profit of £3011. 7s. and 9d. There may have been some alarm, for on November 7th, 1738, a computation was made of Lead Mine Stock belonging to George Liddell and partners, but the position was not

found to be too unsatisfactory. Lead and ore on hand was valued at nearly £3000, and utensils, tools and buildings at £1220. 17s. and 2d. Here the account book closes, and there is no further reference to Liddell in the Admiralty Papers.

From 1739 to 1745 Liddell's partners one by one disassociated themselves from the enterprise and he himself gradually disposed of his various leases long before his original twenty-one years had expired. But lead-mining in the district had received a great impetus which was to carry it to its optimum in the last decades of the eighteenth century. Such companies as the London Lead Company and the Earl of Carlisle and Company, and such individuals as Thomas Errington, Esq. and Sir Thomas Blakett, continued the old workings and opened up new ones. In 1768 103 mines were held under lease from the Hospital, in 1814 the number was 102 and the rents in the latter year were £1463. 19s. and 1d. per annum. The wise stewardship of such Hospital agents as Smeaton (the engineer of Eddystone Light-house) did much to develop mining (the Nentforce Level was one of his enterprises), and so did the Hospital's Smelt-House built in 1767 at Langley Castle in Northumberland, which not only smelted duty ore but bought ore from the smaller adventurers without smelting establishments, and therefore stimulated individual enterprise and initiative. But to Colonel Liddell must be given credit for the first large-scale capitalised mining effort at Alston Moor in the eighteenth century.