

The Mining Journal

Saturday 20th May 1837

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Wheal Wallis Mining Company.

At the first annual meeting of this company, held at Devonport, on Wednesday, the 3rd instant, the following report was made to the adventurers, and received:-

Report.

I hereby beg to send you my report of Wheal Wallis, since May, 1836, during which period there has been about 100 fathoms driven on different lodes, several shafts cleared, and others sunk to a considerable extent, and many very important discoveries made by laying open lodes and veins of rich tin.

The Goose Lode. - The adit, which is about 150 fathoms, has been cleared into this part of the set, where we have discovered all the backs of this lode above the adit to be taken away, as well as the principal parts of the bottoms, as far as it could be followed by a water whim; I therefore conclude that great quantities of tin have been taken from this lode, and that by sinking the shaft, and extending the levels, good results may be relied on.

Swallow Lode. - On this lode we have made some very important discoveries. In driving the level east, we have passed over from twenty-five to thirty fathoms of good tin lode, varying from eighteen to twenty inches wide, worth 6-0d per barrow; in addition to which we have, in sinking a shaft fifteen fathoms east of the present end, on the same lode, found a course of tin from two to two and a half feet in width, worth principally £5 per barrow of twenty-two gallons. The tin discovered on this lode is considered by all who have inspected it, to be of the first-rate importance as to quantity and quality, and will make a good and lasting mine, independent of the other lodes. Also, this lode is intersected twenty fathoms east of the adit, by a fine counter lode, two feet wide, composed of mundic, gossan, spar, and greers or oxide of copper, which is deemed to be the mother of copper.

Park Gwarra Lode. - On this lode we have driven from sixteen to twenty fathoms, which varies from three to three and a half feet wide, rich with gossan, and some tin distributed all through it, and occasionally very rich stones of tin in the caple. This is also intersected by one of Godolphin Bridge lodes, which is kindly for copper.

Crewett Lode. - We have driven about twenty fathoms east of the adit level, it carries a fine brent with gossan; and in the bottom of the north part a branch of very rich tin, four inches wide, for several fathoms long. The lode is very large, and tin all through it, and possesses every appearance of being near a great course of tin. The fourteen fathom level has been driven east and west some distance; the principal part of it produced tin worth about £3-12-0d per barrow. The lode in the shaft is six feet wide, with tin distributed all through it, and in a fine brent; the appearance of this lode and size, as far as we have seen it, may be said to be a fac simile of the Great Champion lode, in Wheal Vor, which has produced a million sterling in tin; there is no reason why this should not do the same - in fact, I believe it will.

There has been various other work done in the mine, such as cross-cutting the eastern part of the set, clearing up and sinking shafts, and opening the backs of the lodes in different

places, building houses, erecting whims, &c., &c., in fact as much as prudence would dictate before an engine be erected.

Having attended this mine from the commencement, above as well as under ground, I have had an opportunity of making my observations, which leads me to these conclusions, and I have no hesitation in declaring that Wheal Wallis is one of the best sets in the west of Cornwall, and I consider my opinion to be fully borne out under the consideration that we have four or six standard lodes besides these described. Two counter copper lodes, passing from Godolphin through this set, and all producing tin and copper (more or less), and presenting the most promising appearance of great and lasting returns. And as a further proof, it is only just to observe that, she is in the centre of the greatest mining district in the world, being at this moment surrounded with tin and copper mines, of the first magnitude as to depth, extent, and riches. - I pledge myself for the veracity of this report.

R. Bottrall, Agent.

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Chesterfield Canal Company.

At a general meeting of the proprietors of the Chesterfield Canal, held on Thursday, the 4th instant, at the Angel Inn, Chesterfield, the usual half-yearly dividend of 3 per cent. was declared. In allusion to the efficient management of the affairs of the company, it was stated that Mr. Gratton of Thornefield, had been the agent for thirty-one years, during which period the receipts had amounted to £90,600, and the losses were under £50.

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Coals.

Coals are now selling at Whitstable at 19-0d per ton. Three weeks ago they could not be obtained under 40-0d.

Letter: Estimated Quantity of Coal in the Derbyshire and Yorkshire Coal-Field

Sir, - Your correspondent, "Omega," has fairly met the disputed question, by endeavouring to identify the seams of coal enumerated in my last communication. In return, I will endeavour to fill up the desideratum by such additional particulars as will establish their identity, but I must beg of "Omega" to keep in mind the original question, and not fly off at a tangent, because the coal seams do not run of equal thickness and quality throughout the district. I took the average from several sections of actual sinkings, in various parts of the coal-field, and this was stated in my first communication. I intended to have been brief this time as the subject is getting rather stale, but I cannot be sufficiently explicit without again going over the coals in the order in which they have been arranged.

No. 1. "Omega" allows that this coal has been worked at Barlborough, and says that its basset is there overlapped by the magnesian lime; so it is, and does not, I believe, again emerge for a considerable distance, but I never heard that its existence was doubted, except by those who adopted Mr. Farey's notion, that a "zig-zag" fault cut off the coal measures on the eastern side of this district. The coal worked in the parish of Annesley, was unwatered by an adit from the Baythorpe Brook, where the Alfreton and Nottingham road crosses it, the water containing carbonate of iron (and probably the sulphate), I think is known as the "Middle-Brook Spa." The seam was four feet in thickness, soft, and of good quality - its distance from the canal and contiguity to the "main hard" which is here, about six feet thick, is evidently the reason of its not being more generally wrought.

No. 2. This coal, from Wollaton to Pinxton, will probably average six feet in thickness, it then becomes thinner until it approaches Yorkshire, where it is generally found nine feet.

No. 3. We are agreed upon.

No. 4. This coal is now working, and has been extensively worked in the neighbourhood of South Normanton, also over the tunnel on the Cromford Canal, where the Butterley Iron Company are getting it in conjunction with a rich ironstone mine. It is the "Waterloo" coal at Shipley, and lies about fifty yards below the Main Hard; at Normanton, it is in two seams, one foot asunder, the upper three feet, and the lower, one foot six inches thick; it is five feet in Yorkshire.

Nos. 5 and 6. "Omega" appears to identify, but he says "Alpha" gives "three good workable seams" as lying between the two hard coals (Nos. 2 and 7), I admit of two only. How is this discrepancy? I distinctly enumerated four workable seams, which are so well known, that it is unnecessary to search the Shipley pits for them. The strata at that place is an isolated counter-basin, and like the similar basins of Swanwick and the Lings, varies much from the general strata of the district; for instance, at the latter place, the Main Hard does not much exceed three feet in thickness, whilst at the two former, it has been found eight, and even ten feet. I think that the EII coal is not workable at Shipley, which may have partially misled "Omega."

No. 7. Agreed upon.

No. 8. The Piper Coal is now working at Babbington - I believe at Chesterfield it is known as the "Town-end thin coal" - it is often found about twenty yards below the Lower Hard.

No. 9. Agreed upon.

No. 10. I here speak of the coal twenty-six inches in thickness, which "Omega" alludes to; it will be very generally worked, as the richest ironstone mine in the district is gotten in conjunction with it; for steam-engines or for house fires, it is not to be despised, at least it will not be when the prime coals are exhausted.

No. 11. I never said that this coal was eleven feet in thickness. I only gave the local distinguishing name; I believe it was christened when the Cromford Canal was cut through it at Codnor Park, and I beg to refer "Omega" to the Sponsors, for the accuracy of their measurement; I have lately seen it brought to ground from a new winning, where it was 100 yards deep and nine feet thick, including some batty partings, which generally characterize it; even at Silkstone, in Yorkshire, where it has attained such celebrity, it is so distinguished, it there "takes horse," and is found in two seams many yards asunder.

No. 12. At Kilburn, this coal is five feet in thickness and of excellent quality.

No. 13. Why does "Omega" infer that because this coal is inferior at Alton it is worthless? At Belper Lawn, it is very good, and preferred by the nailors to any other. I can point out other places where it is good, but I admit it is sometimes inferior, for which ample allowance is made in my general estimate. The coal which lies immediately above the Millstone Grit is not two feet in thickness, which was the reason for its rejection; but this, and many more that I could mention, will be extensively wrought when "hard up" for the "black diamonds". "Omega" will please to bear in mind, that several upper coals are worked in Yorkshire, which are not enumerated here; and I think he will then acknowledge that the total thickness is not over-rated.

I am obliged by his kind invitation, but as I cannot depend upon being within 100 miles of him at the time appointed, I am compelled to forego the pleasure it would afford me to pay him a visit. He was quite mistaken in my being impatient at contradiction, the remark he alludes to does not warrant this construction. In alluding to the railroad, I took a geological view of the question, and am ready to maintain the opinion there expressed. As all the northern mails will probably be conveyed by the Midland Counties and the North Midland Railway, it is probable that this circumstance alone will operate against a circuitous route of nine or ten miles to accommodate the good people of Derby, who have certainly got to windward this time; whilst the imbecility of Nottingham and Sheffield will be properly rewarded, if no better accommodation is ever afforded than what is now in progress. I shall only observe, in conclusion, that the Butterley Company ship everything down the Erewash valley, with which they are already connected by an excellent railroad.

I am, Sir, your most obedient servant.

May 4

Alpha

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Letter: Explosion of Fire-Damp in Lead Mines

Sir, - I have read with much pleasure the valuable series of "Foreign Extracts," which has for several months past appeared in the Mining Journal, and forms an important addition to our usual sources of information on mining, and the sciences connected with it.

The last paper of this series, "on the explosion of fire-damp in a lead mine," is highly interesting, as authenticating the occurrence of a phenomenon so extremely rare, and at the same time apparently so improbable in its nature, that its existence was before almost a matter of doubt, although now rendered certain by the authority you have quoted, and admitting of satisfactory explanation from the circumstances under which it is recorded to have taken place.

The only account of a similar occurrence which I had previously seen, was in a curious old work, written about two hundred years ago, and containing incidentally a good deal of information on the state of mining in this country at that time. From this work I forwarded you several extracts, which appeared in the Mining Journal some time since; and in remarking upon the explosion of fire-damp described in one of them, expressed some doubts as to its correctness, supposing that the alleged "strange accident," might have had its origin rather in some trivial circumstance, magnified by the superstitious fears of miners, than in any real occurrence. In expressing this doubt, I was influenced as there stated, by the belief that the existence of explosive gases in lead mines, situated like those in Cardiganshire, in slate rocks, was an unprecedented and improbable circumstance, there being no apparent cause in such cases for that spontaneous generation of inflammable gases which is well known to be constantly going on in our coal mines, and is frequently in them productive of such terrible and fatal effects. I was, however, of course aware that explosions of fire-damp have occasionally taken place in the lead mines in the north of England, but as these are situated in rocks of the Carboniferous series, often containing, indeed, thin seams of coal, the case to which I refer is evidently by no means parallel.

After describing the sudden holing of the adit at Talybont, and the tremendous rush of water from the old workings which immediately ensued, the writer alluded to thus proceeds to describe the second "strange accident," the correctness of which is now placed beyond any doubt. Omitting, as he states, all "Philosophical inquisition of natural causes," the circumstances is thus related: - "About four hours after, the violence of the water being past, Fisher, one other of the miners, went in with more curiosity than wit, to see what effect it had wrought there, and being some sixty fathoms in creeping very low, his candle enkindled a vapour which came on him with three or four flashes, and he suddenly returning, had his hair burnt off, and his clothes scorched, in which conclusion it gave a crack like the report of a piece, and in a fierce gust of wind blew out the candles of three more coming after him."

The strict coincidence between the circumstances here related, and the similar accidents described to have taken place in the German mines, is very interesting, and distinctly proves the otherwise questionable accuracy of the "strange accident" at Talybont, and the veracity of the writer who relates it.

We may therefore consider it certain, that the sudden holing of adits to old workings filled with water, is not unattended with danger from explosive gases, a fact of some practical

importance in mining. Perhaps some of your numerous readers may favour us with a detailed explanation of the causes in which explosions of this kind originate, the subject being curious and well deserving of further investigation.

I remain, Sir, yours, &c.

Hackney Road, May 3

Frederick Burr

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Letter: Northern Mines and Railroads.

Sir, - I take the liberty of stating that our northern mines and railroads are somewhat neglected in your Journal, (as compared with the western and southern speculations) and I fear that you are not in sufficient communication with competent persons here to furnish information, where so much is going on. In fact, notwithstanding the prominent space occupied by the Cornwall mines in your useful Journal, and the high opinion which Cornish gentlemen-writers express of their own locality, I feel, from a personal acquaintance with both mining districts, that the north of England is really the most interesting district, as well as most extensive in operation, of the two. At this moment the county of Durham is like a grid-iron; and a correct account of its various railways, either executing or completed, would be a curious as well as interesting addition to your statistical news. The quantity of iron way which will shortly overspread the late palatinate, will surpass, manifold, that of any other English county. Its new ports and harbours would merit also some attention: one of the best harbours in England (Hartlepool) has, within late, been excavated, as it were, out of the sea, and is about to absorb a great part of the shipping of goods in this country; thus realising, on the one hand, the well-directed foresight of the Trinity House of London and His Majesty's Government some years ago, who projected, though too early for the spirit of the age, the formation of a harbour here, as well for commercial as warlike purposes; and, on the other, the prophetic annunciations of Professor Sedgewick, in his valuable paper on "the Magnesian Limestone of England," that, shortly, tracts for the transit of coal from the western part of the County of Durham, would be made across the terrace or table land of that formation to the sea. It is not improbable that his anticipations were one cause which has led to the piercing of the limestone itself in search of coal, which is now becoming the speculation and riches of the north, where formerly it was believed that coal did not exist, or at best was shut out, like an extinguisher, by the impenetrable mass, as it was thought. Such is the debt of gratitude which is owing by the land-owners of Easington-ward, in this county, to the scientific reasoning of modern geologists, and for which Professor Jamieson, as one of the earliest indicators, is entitled to his share. How many years sooner this result would have ensued, if a scientific education had been afforded to the practical engineers of England, as is done in foreign countries, by the establishment of a mining school, is not for me to state. I believe, however, it would have carried Hetton's Wallsend Coals to the London market at least ten years sooner, and others consequently in proportion.

I am, Sir, your most obedient servant

F.

[The letter of our correspondent we regret was mislaid. We have to offer our apologies for the delay in its insertion, while the subject matter demands our thanks. Our correspondent's second letter came to hand, for which we feel obliged; regretting, however, as we do, that circumstances preclude him from complying with our wishes. - Ed. M.J.]