

SHERIFF HILL COLLIERY JOURNALS
15th. May 1821 to 16th. Oct 1828

Bud-39

<p align="center">May</p>	<p align="center">[1]</p> <p align="center">Memoranda respecting Sheriff-hill Colliery, <u>extracted from Sundry note Books &c.</u></p> <p>1799 Ap: 15th. The Isabella Pit, just opened out, in the yard Coal Seam 1799 Ap: 2^d. The Isabella yard Coal – Six South Boards won out – the W. Mothergait is only up at the pillar. The water-level standing 100 yards to the East of the Shaft 1805. The Isabella Pit begun to work the Low-main Seam. 15th. 1821 John Fletcher wrought in Isabella Pit Low-main Coal, says the 1st. Workings were the Pannel N. & E. of Shaft – next Dyke. The next S[t]uth was the Pannel adjoining to the S^o. E. says it is 13 years since the latter was wrought. This is the Part where the Trespass into Heworth was made.</p> <p align="center">[Pages 2, 3 & 4 are Blank]</p> <p>[Bud-39]</p>		<p align="center">5.</p> <p align="center">Dec 31st. 1820</p> <p>Prices paid <u>at Sheriff-hill Colly</u> Isabella Pit, Upper-main Seam</p> <table border="0"> <tr> <td>In whole</td> <td rowspan="2">}</td> <td rowspan="2">Hewing, 61 P. xx. for Round</td> <td rowspan="2">41</td> <td rowspan="2">-----</td> <td rowspan="2">Small</td> </tr> <tr> <td>with 20 P. Corf. S^o.</td> </tr> <tr> <td>Side</td> <td colspan="5"><hr/></td> </tr> <tr> <td>20 Peck Corf North Side</td> <td rowspan="2">}</td> <td rowspan="2">Hewing 5/ 5 P xx. for Round</td> <td rowspan="2">3/ 4</td> <td rowspan="2">-----</td> <td rowspan="2">Small</td> </tr> <tr> <td>Hewing in Pillars</td> </tr> <tr> <td>20 Peck Corf</td> <td rowspan="2">}</td> <td rowspan="2">5/- P. xx. for Round</td> <td rowspan="2">2/ 6</td> <td rowspan="2">-----</td> <td rowspan="2">Small</td> </tr> <tr> <td></td> </tr> </table> <p>N.B. The above prices include all considerations for Band &c. except for working, wet, and double, for which 4^d. P. xx. each is paid.</p> <p>In <u>siding over</u> in the Broken, when fast at both Ends 6^d. P. xx. extra is paid on the hewing.</p> <p>Two Corves a Score of Coarse Coal from above the high Band is cast for which the men are p^d. The Small Coal hewing <u>Price.</u></p> <p>Putting 1/ 3 P. xx. to 80 yards, after which 1^d. Additional for every 20 yds. further</p>	In whole	}	Hewing, 61 P. xx. for Round	41	-----	Small	with 20 P. Corf. S ^o .	Side	<hr/>					20 Peck Corf North Side	}	Hewing 5/ 5 P xx. for Round	3/ 4	-----	Small	Hewing in Pillars	20 Peck Corf	}	5/- P. xx. for Round	2/ 6	-----	Small	
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	<p align="center">6.</p> <p>Driving Rollies – 1/ 2 a Day Trapping, 10^d. a Day Narrow Work, Holing walls, 1/ 6 a y^d. Winning Head^s. – 1/ 8 Narrow Board – 1/-</p>		<p align="center">7</p> <p>Wood-leaders 2/ 6 a Day – dead wood lay plate-way, and put Stones Pumping Engine Underground En. Man 3/- a day Bank-men 2^d. a Score for a 20 Peck</p>
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Overmenship

First Overman 25/- a week
 Deputy ditto – 21/-
 Are allowed 1 Gill of Oil a day
 for each Lamp, and are supplied
 with the Oil at 2/ 4 P. Gallon.
 Have 2/- for going down the Pit
 on the Sunday mornings
 Drawing Props in the whole 4/ 2 P. h^d.
 in the Broken 3/ 8
 Cranemen, 1/ 9 a Day
 Putters for hoisting
 their own 6^d. a day
 Horsekeeper, 18/- a week for 14
 Horses.
 Onsetter at Shaft 3/- a day
 Rolly-way men 3/- a day and
 finds his own Candles
 Lampkeeper 1/ 4 a Day
 [Bud-39]

Corf – 2½ when under 200 x.
 a Fortnight.

Rubbish & Stones double price
 waiting on 2^d. an Hour.
 Repairing Shaft 21/- a Fortn^t.

Brakemen 3/- a Day, and 2^d. an
 Hour for waiting on
 Cleaning Boiler & Flues
 1/ 6 a Fortn^t.

Fireman, 1/ 4 a Day.
 Inspecters of Wailers 2/ 9 a Day
 Skreeners Trimming out 2/- a day
 Wailing 3^d. a Boll.

8.

King Pit, Low-main Seam

With a 20 Peck Corf
 Hewing (Pillars not having any
 whole Coal) 3/- a Score
 Extra for siding over, when
 fast a both ends 4^d. A Score
 Overmen, Craining, Banking,
 Braking &c. the same as in the Isabella Pit.
 Furnace- Keepers 2/- a Day.
 N^o. 26. Dec: 31 : 1820
 King Pit, Low-main – 140..0 – £69.. 9..3
 Isabella High-main – 171..0 – 97.. 1..4
311..0 £166..10..7
 Shift Bill this Fortn^t. – £18..18..10
 Formerly – – 547..19.. 4
 Total this year – – £566..18.. 2

[9]

Dec: 4 : 1820
 Sheriff-hill Colliery

View of Kings Pit, Low-main Seam.
 Having got the Air changed, and every
 thing ready for beginning to work the Pillars
 in the S^o. W. division of the workings, the
 Pit started Coal work on the
 As there is more than the thickness of
 the 20 yd: Barrier of Coal left against Ayton
 Banks Colliery, a few S^o. Boards are turned out
 of the innermost Board, to work this Coal off
 in the first place. It will last a month or
 6 weeks.
 As it is uncertain to what extent
 the workings in Ayton Banks may have been
 been carried, I fixed to set away two exploring

[Bud-39]

Drifts, to go to the Boundary – one at the face of the S^o. Winning Head^s. above the Barr the other Pillars further west. Long holes to be bored from the face of the Drifts to ascertain whether there is a sufficient Barrier left in the Ayton Colliery.

Enquiring must be made, and all the information possible obtained relative to the adjoining workings in Ayton Colliery. M^r.

10.

Edw^d. Steel is a likely person to give information on the subject.

Found the Ventilation very good, and everything in as favourable a state as can be wished for, to commence the working of the Pillars. But the Seam is tender just above the Gro^d. Coal, which occasions the wall-sides to flitter. I suspect from this that a considerable quantity of small Coals will be made in working the Broken. It will also occasion a tendency to creep.

It will advisable to begin to remove the Crank from the Isabella Pit Mai Coal into the East Way of the King Pit – Low-main – to pump the water out of the face of the East Workings. this should be done before the W. way pillars are wro^t. off so as to have all ready for starting the Pills. in the East Way, by the time the W,Way is finished. The Crank will stand in the same place as it did when the water was pumped out before, to ascertain the trespass into Heworth. The water must be pumped

[Bud-39]

11.

through the Barriers into the Isabella E. waste and after the Pillars are wro^t. off in the King Pit, it may be run back again into the Goaves. As no pipes can yet be spared from the Engine, in the upper-main Seam, some new or new, or second hand ones will be wanted for Crank in the Low-main. It will be advisable to have 4 In. pipes on this occasion.

The propriety of driving a Stone drift from the water-course Stap: in the Isabella Pit, upper-main, to drain the East workings and to lay off the small pumping Engine will shortly have to be taken into consideration as will also the following.

1. The expediency of erecting inclined Planes on the wagg: way.
2. Laying off the Landsale Trunk, and supplying the Trade from the Isabella Pit entirely.
3. the tentale of the Rollies & Trams, and the working of the main Engine to be taken into the hands of the Company.
4. The Materials of the Fa[nny] Pit Engine to be taken down, and converted
5. The East Side Machine at King Pit to

12

be repaired. Wants a new Piston, and the Boiler is in very bad condition
Dec. 19th. 1820 At the Colliery with M Ja^s. Lamb. Inspected the Staith and Pits, the Raff-yard &c.

Decided to lay off the Landsale Trunk and to take the Tentale of the Rollies &c. into our own hands.

Decided also to take the Materials out of the Fanny Pit engine, and to sell, or convert them.

The Boiler of the King Pit East Ma^m. to be repaired, and a new piston to be got in the course of the ensuing spring Thought it right that the Buildings &c. about the Raff-yard and store-house should be ensured from accidents by Fire.
Dec: 23 : 1820 M^r. Edw^d. Steel informed me that the Low-main Workings in Eighton Banks Colliery, are not within 100 yards of the S^o. Boundary of Sheriff-hill Colliery Communicated to M^r. Easton to have the Co. object to allow M^r. Ellison, to have the option of taking a part of the Materials at End of Term – he must take all, or none

[Bud-39]

13.

Account of Serving at Sheriff Hill Colliery Nov. the 15. 1820.

Per annum

The Land sail Steath may be Laid of and the Coals Sold at the Pits

£ sh. d.

At the same price such will be the saving of one horsed @ --- 60..0..0

& 1 Man attending the Land sail @ 15/- per week ----- 39..0..0

& 1 Man Keeping the waggonway in Repair @10/- P. D^o. --- 26..0..0

& Suppose 1248 Chaldrons to be vended in one year @ - /5 for Leading 26..0..0

& finding wood Rails & keeping waggon in Repair ----- 20..0..0

£171..0..0

& tokens may be used to keep the Land sail accounts right to take the Making and repairing of the Rolleys and Trams into the Owners own hands, which now Cost – / 4½ per ten and to take the Main Engine into the hand of the Owners which now Costs £2..15..0 per week

A Consideration whether we can reduce the Corving 1½ per xx. or not

By J. Appleby.

14.

Tuesday 15th. May 1821

View of the King Pit Low-main Seam

The working of the Pillars is going on very well. The first course of Juds are wro^t. off, and as working – about half off

The Pannel is 5 Pillars long

The first Course was, 2 Walls for 2 Pillars, 3 Walls for 1 Pil. and 2 Walls for 2 Pills.

15.

The ventilation is very good, and the last return of the air perfectly clean.

No Foulness has ever yet been seen to discharge from the Goaves. Not withstanding which Davys are used soley in the Juds. No Candles allowed to be taken within the working Sheth.

reckoning W. up from the winning Head^s. <Course>

The Second Pannel[^], is 2 Walls for 2 Pillars, and 3 Walls in breadth up to the Top. Are working in the 3^d. Pillar.

The Air in the working Course, is thrown into 4 down-come Boards. The Juds are always taken off, against the Air

The Goaves fall very freely, no pressure yet visible on the Walls, on the out-by side of the Goaf. Indeed the Goaf does not yet seem sufficiently large to induce general pressure.

The roof Stone breaks in a very favourable manner for working the Juds [Bud-39]

Five Horses put the Coals – take 3 – 2 Corf Rollies at a pul.

Hewing Price, Round – 4/ 2 P. xx.

Small – 2/ 1

4^d. P. xx. additional on both Round and Small, for siding over, when both ends are fast – nothing for siding over where both on only an end is fast

Pay nothing for narrow work, unless the place is under 2 yards wide.

Working 20 xx. a Day at present

Skreen out $\frac{1}{5}$ th. of Small with a $\frac{3}{8}$ In.

Skreen – this is when the Coals are taken away as wro^t. but when the Coals have to lie in the Heap

16.

the are put over an $\frac{1}{2}$ In. Skreen, which makes the produce much worse of Ship Coals.

The Isabella Pit Main Coal This Pit was laid off this Day, as there are plenty of Coals beforehand.

All the Walls to the S^o. East, are wrought off. (14 in Number) to the Barrier wall, on the S^o. Side of the East Mothergait. As it will be several months before we shall have occasion to go into this Pit again. All the Materials must be taken out of her, except the Rolly-way to the S^o. W. and in the [] E. Mothergait to where the last of the water will rise to, before it [serves] away to the yard Coal Staple. The Small Pumping Engine to

1821

17.

May 15th.

be taken out, and the water to be suffered to fill up the dip workings till it fill up the dip workings serves away, by the Levels down the Yard Coal Staple.

If we should find it necessary at a future period to take the Water out of these dip workings again, it may be done by taking as much Level away from the Staple – by a Stone Drift, or open Levels as may be requisite.

The Counterbalance Staple at the new Machine King Pit must be deepened. It is only 5 Fathoms deep, and it ought to be 12 at least.

There are 6 Horses in the Isabella Pit which will now be to spare. They must be sold – probably by Auction may be the best way.

[Bud-39]

May 17th. Got the little Engine to bank out of the Isabella Pit, upper main Coal
May 21st. Got all the Materials out of

1821

18.

the Isabella Pit upper-main Coal
May 21 Begun to deepen the Counterbalance Staple at the W. Machine King Pit. It is let to W^m. Sanderson & P^{rs}. At 57/- a Fathom – 5½ ft. Diams they find Gunpowder & Candles They have 3^s/ 4^d. For waiting on every 12 Hours beside the price P. Fathom.
May 30th. On the 25th. Ins^t. an uneasiness upon the Walls in the S^o. W. Pannel, now working in the Pillars, in the King Pit Low-main was ^<observed>; but it subsided again in a day or two – the Goaves having fallen very heavily
Dec. The Company decided to set the upper-main Seam in the Isabella Pit to work again – to start after the Christmas Holydays. The Pit to be made ready for work in the meantime.

[Bud-39]

1822

19.

Jany. 19th. Adjusted the clause in the New Lease, relative to the Horses to be taken by M^f. Ellison, at the end of the Lease, with M^f. Easton
Have started the Isabella Pit, in the upper-main Coal Pillars, – to the S.W. – against the whole Coal to the South and against Ravensworth Boundy. to the West.
Set away in a pair of Water-level Cross-cut Drifts to the N.W. out of the East Mothergait, at the tail of the Water, which is serving away down the Bore-hole into the Yard Coal. These Drifts are 5 Pillars East from the Shaft – about 190 yds. E. from Shaft.
Mar. 22^d. 1822 The above Drifts are 70 Yards in, but are going so nearly W. Board^s. Course (N 62½ W. that they are getting no hold of the Coal to the North. I therefore

20.

determined to stop them for the present
Mar. 20 : 1822 Jas. Will^m. Hann, Trapper, Killed in the Isabella Pit High-main, by the Rollies running over him. He had got upon the Rollies to ride & fell off when the Rollies ran over him.
April 9th. 1822 Viewed the King Pit Low-main Seam. The farthest S^o. W. Pannel of Pillars having been finished in the beginning

21.

still there is a great pressure upon the walls which are being worked.
A great quantity of Timber is lost and destroyed in the Jenkins and Juds
About 1/3 of the whole produce is Small Coals.
In the S^o. W. Pannel the Thrust is quite settled, and no pressure on the adjoining walls. But a smart Feeder

of January. The working of the S^o. East Pannel commenced – the Barrier in this quarter, next Ayton Banks being wro^t. off

M^r. Easton gave leave in the Aug^t. Last to thin the Barrier, next Ayton Banks to 10 yards.

Upon the whole the working of the Low-main Pillars is going on very favourably but the Coals work small, owing to the constant pressure upon the Walls adjoining the Goaves. The Goaves fall very freely but

[Bud-39]

of water has been brought down by the Thrust, which from all appearance is from the upper main Seam.

This renders the propriety of working the Pillars under the Eastern Part of the High-main and Yard Coal Wastes very questionable. For should the working of the Pillars to the East bring down the water, it would drown us out of the Low-main Seam.

Under this view of the Subject

22.

it is evidently the most prudent plan to work those parts of the Low-main Pillars which are not under the drowned part of the wastes in the upper Seams. The parts which may be expected to be got in the way are as follows viz.

S ^o . E. Pannel between the S ^o . winng. Head ^s . & the old Goaves, and between the E. mg ^t . and Ayton Boundary -----	} Acres	5.5
The 1 st . S ^o . W. Pannel -----		
N.W. Pannel -----		6.5
In King Pit -----		23
N.W. Pannel Isabella Pit ----		11
S.W. Ditto -----		20
		31
		<u>54</u>

Wro^t. with 15 y^d. winn^s. – 10 wall – 5 Bd^s. and walls holed at 30 yds. 2 yds wide

[Bud-39]

23.

$$\frac{5 \times 30 + 2 \times 10}{15 \times 30} = \frac{170}{450} = 0.38 \text{ Got by feet}$$

working, and 0.62 Remain in Pillars.

The Seam is 4 ft. thick of good Coal

4840	2420
<u>2420</u>	<u>0.62</u>
7260	4840
2420 Ch. P. acre	<u>14520</u>
	1500.40

Ded^t. 1/5 lost in working – – 300

Sent to bank ----- 1200

Ded^t. 1/3 Small Skreened out 400

Neat produce of Ship Coals 800

54 Acres

Total Produce – 43,200

Working entirely with Davys in the Broken.

The Ventilation good, and the Return of the Air from the Goaves remarkably clean.

The Coals in the main Coal Heap at Bank looks very Small

24.

In the Uupper-main Seam, every thing is in very good order.

May 1st. 1822 Laid off the Isabella

Pit, in the Upper-main Seam, 'till the coasting trade sets in. the men are sent to the King Pit Low-main

Aug^t. 4th. The South air-course in the Beaumont Seam, was stopped by the Waste rising in the S.E. way. And the S^o. East the N. East, and the S^o. W. Districts got completely foul. It was fortunate that this circumstance was discovered – it was discovered by the Wasteman going their regular roundg. Sep: 4th. The working of the Pillars continues to go on very favourably in the King Pit Low-main. The Goaves fall very freely.

It appears that the working of the pillars in this Seam affects the yard Seam, as it is scarcely possible to Keep an air way open down the E. mothergait Drifts and E.

[Bud-39]

1822

25.

Workings in the latter Seam

Oct^r. 16th. Nothing material, at the Pits out of the ordinary line.

The back of the E. mothergait Drift in the King Pit yard Coal, is not travelable at present. The E. workings are at present aired by a Scale from the Isabella Pit.

From the Goaves in the Low-main King Pit, falling up to the Five-quarter Seam. It is not possible to Keep the waste of the latter open. The air course has therefore been shortened.

Oct^r. 24th. The Borehole from the upper-main to the yard Coal, Isabella Pit stopped by Furring

Oct^r. 30th. Got the above cleansed.

Nov. 15th. Brought the Furnace from the Low-main Seam, Isabella Pit, and put it into the High-main.

Are preparing the Pillars of

26.

this Seam for working in the West way.

Nov. 27th. N^o. 24 Have drawn 574 ~~xx~~.

this Fortnight, out of the King Pit Low-main – average of Overman's Bill, 6/ 5 P. ~~xx~~.

Dec: 8th. Sunday morning. The rubbish behind the Furnace wall, in the Isabella Pit High-main caught Fire; but was discovered and extinguished without any injury being done.

Dec: 11th. Examined Bills, nothing particular at colliery – all going on very well.

Dec: 23^d. 1822 Shortened the Isabella Pit

27.

ready for work in the Pillars – to the S^o. West.

1823

Jany. 6th. The Pits started work again this morning. The Isabella in the main Coal Pillars to the S^o. W.

Jany. 20th. Nothing particular this

air, and split the King Pit, in the Low-main Seam. To improve the Ventilation of the King Pit air, in the working Juds.

Dec: 24th. The Pits laid in this Evening for the Holydays.

Dec: 31. During the Holydays the Wastemen &c. have been employed in making the High-main Coal Isabella Pit [scaly]

[Bud-39]

Fortnight.

Feb. 13th. The top length of tubbing in the King Pit, burst. The water ran down the Shaft for 2 Hours into the Beaumont Seam, before the Leak could be stopped.

Feb. 14th. Shortened the Air Course in the S^o. W. Pannel King-Pit Low-main

1823

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Pillars. The Isabella Pit, high tubbing is very bad as well as the King Pit. both leak considerably.

The planks are much decayed, and ought to be renewed.

March 17th. Begun to work the first N.W.

Pannel of Pillars in the King Pit Low-main

March 18th. Finished the 1st. S^o. E. pannel of Pillars in the King Pit Low-main.

March 19th. John Lindsley putter, killed by a fall of stone, in the Isabella Pit High-main Seam.

March 20th. Changed the air in the King Pit Low-main Seam, so as to give the men in the Juds the first stroke of it.

March 21st. Examined the Bills at Newcastle

Present Establishment of Horses viz

8 Underground

15 Waggon

2 Sledge

2 Cart

1 Riding

1823

29.

April 18th. As the bottom Coal of the High-main Seam cannot be vended, it was decided to set on the Beaumont Seam, in lieu of the Main-Coal, as it is expected that the Beaumont Seam Coals will vend in mixture with the Low-main. As Ellison's main.

May 6th. The King Pit went to ^<Coal> work in the Beaumont Seam.

Changed the Furnace from the High-main to the Low-main, in the Isabella Pit. this is to save the expence of waiting on the Furnace men, as they come thro' from the King Pit, in the Low-main. The High-main Seam is left unaired by this alteration but will not take any harm.

May 16th. Have begun to repair the E. Machine at the King Pit thoroughly.

May 22^d. The feed pipe of the N. Boiler at the new (high pressure) Machine King Pit got stopped by some means, in consequence of which the Water in the Boiler got low, and the Flue heated, and came down 5 Inches for 6 feet in Length and 8 In. broad. A considerable leak took place at the same time. In consequence

1823

30.

of this accident it becomes necessary to push the repairs of the East Machine with all speed
 May 26: Bought an 11 feet Boiler at ~~sh-~~ Hill Heaton for the E. Machine at King Pit gave £48 for this Boiler. It requires a good deal of repairing.

Laid off the Beaumont Seam, and set on the Low-main double Shift, to ease the West Machine till the E. one is repaired.
May 27th. Got the Boiler home from Heaton
May 29th. Decided to wall the Ingates of the yard and Five-quarter Seams in the King Pit E. Shaft, as being the most effectual and cheapest mode of repairing it
June 7th. The Five-quarter waste in the King Pit S.W. way, go foul from the Low-main Thrust below. Got her cleaned in the first 6 Boards South which is as far as she is travelling
June 11th. Laid off the double Shift in the Low-main King Pit, and continue the Single Shift
June 13th. Have nearly finished the repair of the 11 ft. Boiler for the King Pit E. Machine

Have let the dressing of the stones for wallg. the Ingates of the King Pit E. Shaft, at 1½^d. P. running Foot – to Ra. Leighton. The

1823

31.

Courses run between 8 and 9 In. thick on the average. The margin of the face and joints are tooled round, and the middle parts are broached off.

June 17th. View of the Colliery

King Pit It having been decided on the 18th. april last, to set the King Pit to work in the Beaumont Seam that the measure was carried into effect on the 6th. May. But the taking up of the Scaffold at the Low-main Coal every Shift was found so troublesome, that it was decided to lay off the Beaumont Seam again on the 26th. May until, the E. Machine could be repaired, so as to work each Machine Seam separately.

The repairs of the E. machine being in great progress, I this day viewed the works. in the Low-main, and Beaumont Seams to enable me to decide, by which of the Machines the different Seams will be most conveniently wrought. After examining the bottom

32.

of the Shafts in the different Seams, & taking all circumstances into consideration I decided, to work the Low-main Seam by the W. Machine, and the Beaumont Seam by the East one.

To suit this purpose the following plan of Ventilation must be adopted.

1823

33.

Cross-cut, to bring the Rolly-way into the E, Shaft.

Found the working of the Pillars in the Low-main Seam going on as well as possible, both to the S^o. W. and N.W. The workings at present are entirely in the 1st. S^o. W. and the

The whole of the Low-main Workings must be aired by the Isabella Pits' Air
 The air must be carried direct down the King Pit W. Shaft to the Beaumont Seam
 The current must be split at the 3^d. N. W. Board – one half to air the N.W. and N.E. Workings. The other half to air the S^o. West, way, and then the two Currents to join again at about 60 yards S^o. from the Furnace. The S^o. East Waste, and the 1st. Pannel of the N.E. Waste to be shut off with Doors. The Foulness to be discharged into the up-cast Shaft – above the Furnace by 3 In. Cast Iron Pipes.
 The Stenting Wall at the N. Lip of the Shaft, in the Beaumont Seam to be

[Bud-39]

1st. N.W. Pannel.
 Examined the Yard Coal Seam King Pit. The Ingate E. Shaft is fallen about 22 ft. high – fixed to wall it up, excepting and Ingate 4 ft. wide & 5 ft. high.
 Decided to remove the Furnace out of this Seam, and to place it in the Beaumont.
 It occurred to me that the Isabella Pit Machine, might be applied to draw the Waggoners up the Wood Bank – the length of
 Mile [qus.]
 the Bank and is 1 .. 176
 This it is to be presumed would save 8 Waggon Horses. This subject

1823	34
June 28 th .	to be further considered The Bore-hole between the High-main and Yard-Coal Seams Isabella Pit stopped.
29 th .	Got the above cleared by putting the Rods up from the Yard Coal Seam
Aug ^t . 6 th .	The repairs of the Boulton & Wall's machine, on the King Pit E. Shaft, being finished – applied her to the changing of the men ^<in the yd. Coal Seam> which allows the W. Machine more time for drawg. Coals.
Sep: 3.	Repaired the Dam at the King Pit Shaft, in the High-main Coal Ingate
Sep: 5 th .	Changed the Air in the Beaumont Seam King Pit, as projected on the 17 th . June.
Sep: 6.	Changed the Air in the Five-quarter

1823	35.
Sep: 10 th .	Begun to repair the King Pit E. Shaft.
Sep: 29 th .	Air uneasiness and pressure took place in the 1 st . S.W. Pannel in King Pit low-main Coal Seam, upon the Walls adjoining to the working Juds.
Oct ^r . 17 th .	The above pressure still continues it seems to be occasioned by the approximation of the working Goaves from the 1 st . N.W. District. There are now only 5 whole Walls, and a 30 yard Barrier, left between the two districts where the Juds are working.
Expence of examining Trespass into	Expence of pumping the Water out of the E. face of the Workings in the Isabella Pit Low-main Coal

Seam King Pit, so as to air her with a scale of fresh air from the down-cast Shaft. Changed the Isabella Pit air Yard Coal Seam also. The Isabella Pit now airs both the yard Coal and Low-main Workings in the King Pit.
[Bud-39]

Heworth where the Trespass was made into Heworth Boundary.
The ridding &c. begun in 1816, and the drawing out of the

1823	36
	1817
	Water was finished in
	Wages, Shift Work ----- £154.. 8..10
	Holing the N. Barrier Wall ----- 4..12.. 4
	4 Horses working the crank
	each 30 Weeks, at 13/ 9½ P. week } 82..15.. 0
	including Horsekeepers' Wages
	each Horse ----- }
	Viewers surveying the Works. }
	next Heworth Boundary -- } --- 15.. 0.. 0
	Diminution in the Value of
	the Crank & Pipes --- --- 50.. 0.. 0
	<u>£306..16.. 2</u>
Separation <u>laid off</u>	<p><u>Oct. 23^d</u>. Laid off the separation of the Coals underg^d. In the King Pit Low-main Seam. Price for the separatⁿ.</p> <p>Round --- 4/- P. xx. } Small --- 2/ 6 - } 20 Peck Without Separation 3/- P. xx. } Corf</p> <p><u>Nov. 14th</u>. The pressure still continues in the King Pit Low-main Pillars but is diminishing</p> <p>The repairs of the King Pit E. [Bud-39]</p>

1823	37.
	<p>Shaft still going on. Is not yet finished down to the Bensham Seam</p> <p><u>Nov: 17th</u>. The Five-quarter Coal Waste in the King Pit, was discovered to be foul to the Shaft. This was occasioned by the falling of the Low-main Goaves below which stopped the air-course in the Five-quarter Workings.</p> <p>Ridded out the 5th. Stenting S^o. of the Shaft and put the air round which cleaned the first 6 S^o. W. Boards.</p> <p><u>Dec: 10th</u>. M^r. Easton Viewed the Low-main Coal Workings, was satisfied with all proceedings.</p> <p><u>Dec: 13th</u>. The Timber at the bottom of the Beaumont Shaft King Pit set on fire by a Spark from a Low-rope in the Shaft. The People ^<who were> in the Shaft repairing the Brattice discovered it immediately and extinguished it, or the consequences might have been very serious.</p>

1823	38.
	<p><u>Dec: 31st</u>. Laid the King off in the Low-main Seam, on acco^t. of the quantity of resting Coals. The Beaumont Seam to commence after the Holydays.</p>

1824	39.
	<p><u>Jany. 6th</u>. Commenced Coal work in the Beaumont Seam King Pit.</p> <p><u>Jany. 12th</u>. Found it necessary to advance the Hewing price in the Beaumont Seam</p>

[Bud-39]

5^d. P. xx. – 16 Peck Corf, making it 4/ 5 P. xx.
April 18th. The Isabella Pit Shaft Brattice was discovered to be on Fire, about 9 o'clock this mornng. The Furnace man raised an alarm, and the Fire was extinguished in 2 Hours by tapping the Tub near the top of the Shaft.

Two and an half Lengths of Brattice were burnt out. This might have been a serious affair.

April 20th. Got the Brattice repaired again decided to fix an alarm Bell with a Wire to go down the Pit, so that in case of any such accident in future the Furnace Keeper may give an immediate alarm.

April 23^d. John Appleby heard several Creep Thuds in the S^o. W. Juds King Pit Low-main. Lann day heard Thuds

1824

40

in the Beaumont Seam also.

May 11th. Tuesdy. Heard Creep Thuds in the yard Coal, Low-main, and Beaumont Seam, King Pit. altho' this were very much the appearance of the commencem^t. of a general Creep, yet with the exception of the working Juds in the Low-main No heaving of the Thill, or flitting of the Wallsides was visible.

May 21st. M^r. Easton in the above Seam, but the Creep was much more quiet, as he had been for two, or three days preceding.

May 28th. The Creep symptoms still seem to be abating. From this it is to be hoped it has only been a partial affair, occasioned by the Working of the

1824

41.

It was resolved to endeavour to Sell the Colliery by Auction, for which purpose an advertisement was prepared.
June 4th. Tho^s. Burlinson Trapper Killed in the King Pit Beaumont Seam, by the Rollies running over him.

June 8th. A considerable bag of foulness came off in the Low-main S.W. Juds King Pit, which occasioned that district to be laid off. This is the first instance of this kind which has occurred since the working of the Pillars commenced in this Pit.

June 9th. By throwing the whole air Course through by the skirt of the Goaf the above Juds were cleared last night and got to work again this morning

Low-main Pillars.

Attended a meeting of the Co: at the Fitting office present

M^r. Wa[ldir]

M^r. Pearson

M^r. Hutchinson

J.B.

[Bud-39]

The Creep seems to be quiet at present in all the Seams

June 11th. Begun to repair the Isabella Pit, W. Side Shaft, where the

1824

42.

Stone is bad, a little below the upper-main Seam.

July 6th. The Arbitrators met this mornng. at the Turf Hotel, to settle the Damages for the Trespass into Heworth Royalty in the Low-main Seam.

M^r. H. Taylor arbitrator for the Co.

M^r. J. Watson d^o. — — — Mess^{rs}. B[randg.]

M^r. Th. Fenwick arbitrator

M^r. Fenwick was not present on this occasion.

July 9th. The arbitrators met again on the above business.

June 13th. Finished the repairing of the Isabella Pit Shaft

July 12th. The men being dissatisfied with the state of the Beaumont Seam works. being under the apprehension of there being foul and in a dangerous state from the E. Waste being dammed off. Nich.

Mould, underviewer at Felling Colly. was at their request permitted to inspect the Workings, and pronounced them to be safe

[Bud-39]

1824

43.

July 14th. The high pressure Cylinder of the King Pit W. Machine burst, but it was repaired in a temporary way until a new one can be obtained.

July 17th. Laid off the Beaumont Seam and set all the men to the Low-main.

July 18th. William Clark Engineer inspected the high pressure Cylinder at King Pit, when it was agreed to have a new one of 20 In. Diam. cast. To take the tube out of the wro^t. Iron Boiler and to place the Fire under it.

Aug^t. 12th. The dust at the bottom of the doup-way Staple in the Low-main Seam King Pit, was discovered to be on Fire It was extinguished without difficulty or any injury being done. It is supposed this Fire had been occasioned by a spark from a Low-rope the Eveng. before Sep: 3^d. Commenced the alteration and repair of the King Pit high pressure

44.

Engine.

Sep: 15th. Got the high pressure Engine to work again. The Coals were drawn by the E. Machine while the repairs of the high pressure Engine were in hand.

Oct. 1st. Repaired the Dam in the Water-level at the King Pit Shaft in the High-main Coal.

Oct. 6th. The Five-quarter Waste at the King Pit was discovered to be foul, the Air-Course having been stoppped but the falling of the Low-main Coal Goaves

The run of air was shortened by cutting off the 1st. 14 Boards to the N & W. of the Shaft, and a free circulation restored.

Oct. 12th. The tubbing on the Grindstone Post, of both the Isabella and King Pits burst, from the quantity of Rain which fell during the Storm yesterday. The Tubs were immediately repaired.

Oct. 28th. The Custom-house Offices measured & weighed two Waggon

	Cw.	qr	lb	Bolls	Pecks
1 st . Waggon –	48	..	3	..	16 – meas ^d . 21 .. 3
Added by off	4	..	0	..	12 –
	53	..	0	..	0 – meas ^d . 23 .. 1

[Bud-39]

1824

45.

Cw. qr lb

2^d. Waggon – 49 .. 1 ..20 – Did not
Officers added 3 .. 2 .. 8 measure this
53 .. 0 .. 0 Waggon

Nov: 3^d. The King Pit high-pressure En: was discovered to be on fore this mornng. at Calling-course – The piece of Oak on which the Cylinder stands was on Fire.

The Fire was extinguished and not much injury done.

Dec: 10th. M^r. Easton viewed the King Pit Low-main Coal Workings – satisfied with proceedings.

Dec: 18th. Laid off the King Pit in the Low-main Seam, and to work the [prp] of Coals out of the Beaumont Seam.

Dec: 31st. Laid off the Pits for the holydays

1825

46.

Jany. 5th. The Pits begun work again

Jany. 7th. M^r. Easton measured the Waggon. And found them as follows

	Bolls	Pecks
1 – –	22	.. 4
2 – –	22	.. 1

1825

47

Pit Beaumont Seam, caught Fire at the Candles of the Shifters who were riding in the Head^s. Course – the main Air Course. The Fire was extinguished in about 3 Hours.

May 1st. A Goaf got foul in the King

3 -- 23 .. 0

Feb. 4th. Agreed to give Geo: Kint an advance of 1½^d. a Score on the Corving for the 20 peck Corf and 1^d. for the 16 P.C. – making 7^d. & 6^d. – this to last to mid-summer.

Feb. 24th. Began to make a thorough repair of the Brattice in the Isabella Pit East Shaft.

Mar. 7th. Repaired the Isabella Pit Shaft, at the yard Coal Seam, Ingate. Put in 22 ft. of Walling.

Ap: 13th. Laid the Beaumont Seam King Pit off work

Ap: 14th. Resumed the working of the Low-main Seam, King Pit.

May 3^d. The Foulness leaking through one of the Dams (the S^o. small) in the King

[Bud-39]

Pit Low-main Seam – the Foulness backed against the Air, it was discovered on the Pit laid off without any accident.

May 31st. The Iron Stone Men, i.e. the Men who were working The Iron Stone, in the Isabella Pit, Yard Coal Waste, went into the S^o. W. part of the Waste, in search of Iron Stone with Candles, instead of Davys, contrary to orders when a Fire took place and burnt Will^m. Taylor & Jn^o. Durham Severely. They both died in a few days.

It was soon discovered that there was a standing Fire, and it was after some time found that the inflammable

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air was burning from a crack in the Thill, in a Wall, and that it had set Fire to the Coal, both in the Wall, and in the Board End, or the E. and W. side of it. The place was fallen above Coal height, and the fire was burning under the Stones. This Fire was in the 18 Band South of the Shaft, at the 8th. Pillar West.

1826

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Sheriff-hill Colly. 28th. April 1826

The Agreement for the renewal of the Lease being concluded with M^r. Ellison, the plans for draining the dip workings of the Low-main Seam on the S^o. Side of the Dyke, as well as the Pillars in the same Seam on the N. Side of the Dyke, must commence without delay; as the Pillars now in work to the N.W. of the King Pit will not last much more than twelve months.

The Isabella Pit will have to be sunk 8 fath: below the main Coal Seam, and a water Level Stone Drift to be driven to the dip of Colly., to bring the water out of the dip workings to the Shaft. The water water to be drawn up to the Engine Level either by, attaching the Machine to pump- ing apparatus or by an En: to be erected for that purpose

The Isabella Pit Machine is in a very bad state

[Bud-39]

(the Cylinder being bad and the framing much decayed) and is utterly unfit to answer the purpose of this dip winning

By replacing the B & Watt Machine on the King E. Pit the High pressure Machine may

1826

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be removed from that Pit to the Isabella, and may be made to answer the purpose of the dip winning

This Machine will want a new set of Nozle's and one new Boiler.

The Shaft frame & main Brattice in the Isabella Pit are much decayed, and will in a great measure have to be renewed.

The work must commence and proceed in the following order.

1. The Gin at the Isabella Pit must be repaired and a main & Crab set.
2. The repair of the Shaft Brattice must commence as soon as this is done.
3. A Lining & Levelling must be made from the bottom of the Isabella Pit Shaft to the tail of the Water in the dip workings, and two Staples must be sunk and the water level drift set away.

The Sinking of the Pit cannot commence 'till after the repair of the Shaft and Brattice is completed.

[Bud-39]

1826

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Examined Waggon-way from Staiths to Pit It seems that by two Engines to draw the empty Waggon back the Coals might be conveyed almost without Horses from the Fell Dyke to the Staith.

One of the Engines to be placed at the junction of the King Pit Branches the other on the N. Side of the Sunderland Turnpike

The 1st. Engine Plain would be 2433 yards

The 2nd. d^o. ----- 968 yards

The Isabella Machine Engine if required as answer for the 1st. Engine, and a new En: might be required for N^o. 2.

The Main Engine

The Jack-head cistern is in a very bad state and will have to be removed.

The top of the Pit is walled for 2½ fathoms with wood, tub upon Crib. This is much decayed, and must be renewed with Stone Walling, the sooner the better.

1826

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Aug^t. 25th. 1826 View of King Pit workings

The working of the Pillars going on as favourably as possible, & the Pit well ventilated.

1826

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Isabella Pit Shaft the repairing of the Brattice is finished about 5½ fath: to the top of the Tubs The Tubs is stripped – the

$\frac{352}{40} = 8.8$ $\times \times$.
 40) 4224 (105 – say – 106

224
24
 Consumption $\frac{1}{11}$ th. Add $\frac{1}{10}$ – – $\frac{10}{116}$

Say 120 $\times \times$. P. Fortnight
 11 Days P. Fortnight == 11 $\frac{10}{11}$
 Say 12 $\times \times$. P day
 On an average a man will hew
 17 Corves – $\frac{240}{17}$ = say 14 Hewers –

Trams required – – – – 5
 Horse drivers – – – – 5
 Horses – 5 Trappers – 6

[Bud-39]

state.

Cleaning ridding & laying	}	£	s	d
790 yds of Rolly-way including side- ing at 8 ^d . P. yd. -----	}	26..	6..	8
Ridding, and laying 310 yds. of Tram-way at 3 ^d . -----	}	3..	17..	6
Ridding and making ing for 5 Horses & Hay board, repairing Timber & Doors about Shaft --	}	10..	--	--
Bankman, Brakman &c. waiting on, while the Pit is making ready underground 3½ weeks -----	}	8..	--	--
		<u>£48..</u>	4..	2

1827

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Brought forward -----	}	48..	4..	2
Blowing down 100 yds. of Stone to lengthen roly-way find- ing Gun Powder – at 3/ 9 ----	}	18..	15..	--
Ridding Falls, leading water, removing Timber and Doors inby Setting Cranes &c. --	}	16..	--	--
		<u>£82..</u>	<u>19..</u>	<u>2</u>

Materials

790 yards of Rolly-way including Sidings & Crossings at 43 lbs. P. yard = 303½ Cwt. at 14/- P. Cwt.	}	£212..	9..	5
<u>310</u> yards of Tram way plate at 30 lbs P. yard = 84 cwt at 15/-	}	63..	0..	0
Rolly & Tram-way Nails, and Brattice Nails -----	}	7..	0..	0

1827

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Working Charges

Hewing 121 $\times \times$. ----- at 4/-	}	£24..	0..	0
Narrow work 40 yards ----- @ 16 ^d .	}	2..	13..	4
Putting 120 $\times \times$. ----- @ 15 ^d .	}	7..	16..	6
56 Drivers 11 days each, 55 – @ ½ – –	}	3..	4..	2
6 Trappers 11 d ^o . each, 66 – – @ 10 ^d .	}	2..	15..	0
Putters opening doors 3 P. Day @ 6 ^d .	}	0..	16..	6
1 Overman at 27/-	}	6..	18..	0
2 Deputies at 21/-	}	0..	4..	0
Inspecting the Pit on the Sunday Mornings -----	}	1..	8..	0
Furnace Keeper -----	}	2..	2..	0
Onsetter, to keep Furnace in day time pay Saturdays & Sundays -----	}	1..	2..	0
Crane man 11 days at 2/- -----	}	1..	7..	6
Stone leader 11 days at 2/ 6 -----	}	1..	7..	6

Timber for Stables, Rolly & Tram- way £15. Rolly & Tram Sleepers £12	} £7.. 0..0
Brattice 80 Lengths at 5/- £20. ---	
Rollies 15 to carry 2 Co. each at 3£ -	45.. 0..0
A Crane £3 - 10 Trams at 13/ 4 each	<u>9..13..4</u>
	384.. 2..4
5 Horses -----	<u>100.. 0..0</u>
	£484.. 2..4

[Bud-39]

A wood leader 11 days at 2/- -----	1.. 2..0
Horse & Rolly-way Keeper 2 weeks at 21/-	2.. 2..0
Mason Bricks & Lime -----	0.. 7..6
Consideration for Hitches } and Sundries -----	<u>0.. 5..6</u>
carried forward -----	£57..17..0

1827

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Brought forward -----	£57..17 ^s .. 0 ^d
Bankman & Brakeman } the Brakeman to fire } & the Bankman to bat } the corves at 24/- P. week }	£ s d 4..16..0
Inspector & bailers } £1..14..0 1..16..8 }	<u>3..10..8</u>
	8.. 6.. 8
Corving 120 xx. at 5 ^d . -----	2..10.. 0
Ropes 120 xx. at 8 -----	4.. 0.. 0
Smith work 2/- P. Ten of 400 } Bolls. 12 Tens P. Fortnight - }	----- 1.. 4.. 0
Shoeing Horses 25/- P. P ^f . -----	0.. 3..10
Finding Candles for Overman, Deputies, wood & Stone Leaders Cranemen, Horsekeepers & Furnaceman Overman 11 Days at 12 = 132 Deputies each -- d ^o . - = 264 Wood & Stone Leaders - 264 Craneman ----- 44 Furnace Keeper ----- 44 Horse Keeper ----- 132 Drivers - 50 P day ---- <u>550</u> <u>1430</u> 45 = 32 lbs ----- at 8 ^d . -- <u>1.. 1.. 4</u> Carried forward ----- £75.. 2..10	

1827

(59)

	£	s	d
Brought forward -----	75..	2..	10
Grease for Rollies at 1½ P. xx. -----	0..	15..	-
Oil and Lamps 5 Lamps P. day } 3 G .. Gill - Lamps & wick -- }	0..	7..	6
Nails, Timber &c. -----	<u>2..</u>	<u>0..</u>	<u>0</u>
	78..	5..	4
Keeping 5 Horses -----	10..	0..	0
Wear & tear of Machine, Grease &c. --	1..	0..	0
Repair of Shaft -----	<u>0..</u>	<u>15..</u>	<u>0</u>
120 xx.	<u>90..</u>	<u>0..</u>	<u>4</u>
1/11 - 10	110)	1800 (16 ^s / 4 1/4	
110		700	
		40 -	484
		<u>44</u>	
	£	s	d
Working costs as above -----	90..	0..	4
Cost of putting the Pit into a work- ing state to be redeemed in 2 yrs } £45 a year P. Fortnight ----- }	1..	14..	7
Interest on Materials £384 } at 20 P. Cent Per Annum - }	3..	0..	7
	<u>94..</u>	<u>15..</u>	<u>6</u>
110)	1895 (17/ 3 3/4		
	795		
	<u>25</u>	say 17 ^s / 3 ^d	
	<u>306</u>		

[Bud-39]

40 : 17/ 3 :: 24 :: 10^s/ 4¼ P. Cha:

1827

(60)

12th. June 1827. The En: Level drift to the Engine from the Isabella Pit being holed from the 3rd. or Eastermost Staple into the Shaft Sump. – travelled through the Drift, and found it very well executed. The tail drift is yards in from the last Staple under the water, and must be continued as far as possible i.e. as far as is safe without permitting the water to break in.

Rode up the Pit from the drift through the trap with 3 buntons M^r. Smith Sinker fell down into the sump 11 fathoms Jn^o. Appleby ran to and slid down the Jack-roll rope, at the 1st. Stap. 27 yds E. from the Shaft, with incredible agility, and came thro' the drift to the Sump, poor Smith was under water but Appleby getting on to the Machine Rope which had been run down found Smith standing in an erect position, with his head about a foot below
the

[Bud-39]

1827

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the surface of the water, Appleby and Clark having got a firm hold of Smith they were drawn up by the Engine but in coming to the trap hole Clark's head was struck so violently against the underside of the Buntons, that he fell back senseless, and it was with the utmost difficulty that we saved them all three falling down again. Smith recovered his senses, and spoke in a few minutes; but his Jaw was broken & he was so much injured otherwise, that he only survived a few days. Clark was also seriously hurt.

The Workings are now all confined to the pannel of Pillars to the N.W. of the Shaft, against the 10 fathoms Dyke. As this district cannot last 'till the Eng^e. Is ready for drawing the water out of dip Wk^s. a district of Pillars must be made ready near the King Pit Shaft.

July 16th. 1827 Started to work the dist: of Pill^s. at the King Pit Shaft. – the Coals are drawn at the Isabella Pit –

1827

62

June 20th. The repairs of the Isabella Pit Shaft being completed, begun to draw the Coals at her, and laid off the King Pit.

July 18th. The E. tail drift, was completed to 110 yards E. from the 3rd. Stap: and was stopped, the top of the Drift being within 5 ft. of the thill of the Seam under the water

1827

(63)

Sep: 27th. The Main En: got to work the water was 14 ft. high in the Shaft & had tailed thro' the Levels to the 10 fa. dyke.

Oct. 7th. The Main Rn: struck the water down.

Oct. 9th. The Pump En: in the Isabella started

Oct. 15th. Viewed the Isabella workings. are working chiefly in the district of pill^s. near the

The total length of the Drift now driven is 361½ yds. which has cost	}	£	s	d
Sinking three Staples 19 Fa..4 ft cost –		735..	5..	5
Ditto – Isabella Pit Shaft 9 ½ Fa. – – –		52..	6..	3
		<u>£856..</u>	<u>7..</u>	<u>4¼</u>

The Wages paid for repairing the Isabella Pit Shaft, amounted to £382..17..8¾

Aug^t. 21st. The bottom rod of the low set of the main Engine broke and dropped the Bucket thro' the Barrel which made it necessary to draw the pumps.

September. The outside main Chain of the Engine broke and the Spears dropping, broke the Bucket doorpiece, & 2 pumps of the Low set. The Pumps were to draw and the broken ones to replace.

[Bud-39]

King Pit Shaft, are working about 24 xx. a day here & 18 out of the N.W. way which will only last about 6 or 7 weeks. Have three Cranes in the south, and one, in the N.W. way. Found the Ventilation good & the workings in a very good state – the Goafs in both ways fall freely & no pressure on the adjoining walls.

Have 10 Horses in the Pit –

The new Engine in 5 days has lowered the tail of the water in the Low main Seam 5 yds. The main Engine had only about 7 Hours a day going, before the new Engine started, she will therefore be able to manage all the water, the latter can draw, at constant work, as it has only an 8 Inch bore with a 6 feet stroke.

1827

(64)

Nov^r. 20 Viewed the Isabella Pit, Low main Coal Seam. The new pumping Engine, has lowered the tail water in the waste about 30 yds. It lowers at the rate of about 2 In: upright water in 24 hours – it is now as low as the top of the first Staple, and they are boring a hole to day up out of the of the tail drift, which is 100 yds., under the water to give the En: a full supply

The slow lowering of the water is cramping the Pit room – there are only 6 Pill^s. In length between the Thrust, on the W. side of the Rolly way Head^s. and the tail of the water. The best mode of working the Pillars has been found by experience to work off the walls, in of single Pill^s.

only taking a single wall at a time next the Goaf, thus with the assistance of the few remaining walls in the N.W. Way

[Diagram]

next the Dyke, the Pit can only work 40 xx. a day, but it would be

1827

(65)

It will be advisable at a convenient opportunity to try the upper Main Coal Seam, in the King Pit Shaft this is the most likely place for obtaining an increase quantity of Coal from.

M^r. Benjⁿ. Thompson is at present working a few Coals out of the Beaumont Seam in this Pit to try if they will answer his purpose for his intended Blast Furnace at Birtley.

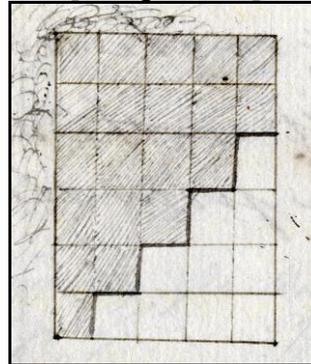
The long incline, on the waggon-way from the Fell to the Sunderland Turn Pike started three weeks ago it is Yards long.

Dec^r. 17th. It having been decided to make a trial of main Coal Seam, in the King Pit – laid a Scaffold in the W. Shaft, and Set away a W. Drift in the Seam. Depth of the seam from the settle

wrong to endeavour to raise more
by deviating from the present
system of working the Pillars. As the water
lowers more Pit room will be obtained.
[Bud-39]

Boards 67 faths.

[Diagram ?]



1828

(66)

Jan. 10th. 1828 Examined the Main Coal
Seam, in the King Pit.

The W. mg^t. Drift is 28 yards up, the N. Head^s.
is 29 h the S^o. Head^s. 31 yards in. The Shaft
walls must be 40 yds. square. No drift can go
to the E. out of the Shaft, on account of the
Dam in the water Level Drift which is
close on the E. side of the Shaft.

There is no appearance of any breaks in
the Seam from the Thrust in the Low main,
which is owing to the Barrier left in that
seam round the Shaft – it is 60 yds thick
on every side of the Shaft.

When the Drifts get beyond the limits
of this Barrier the case may be very different

Section of Seam

	W. Mothergate	S ^o .Head ^s .	N.Head ^s .
	ft. In.	ft. In.	ft. In.
Coarse Coal –	0 .. 3 – –	0 .. 3 – –	0 .. 3 good for nothing

1828

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	W. Mothergate	S ^o .Head ^s .	S ^o .Head ^s .
	ft. In.	ft. In.	ft. In.
Bro ^t . For ^d . – – – –	1 .. 2 ³ / ₄	1 .. 3 ¹ / ₂	1 .. 3 ¹ / ₂
Coal – – – – –	1 .. 6	1 .. 6	1 .. 5 ¹ / ₄ Good
Parting – – – – –			
Coal – – – – –	– .. 2 ¹ / ₂	– .. 2 ¹ / ₄	– .. 2 ¹ / ₂ } Good for
Parting – – – – –			– – – – – } nothing
Coal – – – – –	– .. 2 ³ / ₄	– .. 2	– .. 2 ¹ / ₂ }
Band grey – – –	1 .. 3 ³ / ₄	1 .. 6 ¹ / ₂	1 .. 5
Coal Coarse – – –	– .. 2 ¹ / ₂	– .. 1 ³ / ₄	– .. 1 ¹ / ₂ Bad
Parting – – – – –			
Ground Coal – –	– .. 9	– .. 10	– .. 10
Slaty Band – –	– .. 0 ¹ / ₂	– .. – 1/2	– .. – 1/2 } Coarse
Bottom Coal –	1 .. 0 ¹ / ₂	1 .. –	1 .. –
	Ft. <u>6 .. 5¹/₄</u>	<u>6 .. 8¹/₂</u>	<u>6 .. 6³/₄</u>

A post roof, with blue ramble on the
Coal-head, which varies from 6 to 12 In. in
thickness.

A Soft blue Thill.

1828

(70)

Feb^y. 13th. A very heavy pressure took place upon the Walls next the Goaf in the Low-Main workings. – in the Juds on the N. Side of the King Pit Shaft. It continued 'till the 20th. When activity subsided, from which it appears, that a complete break is effected between the barrier (60 yds Square) left for the support of the King Pit Shaft and the working Juds.

March 5th. Viewed the above workings. Found the uneasiness on the Walls entirely settled and the workings are a very favourable state considering all the circumstances of the situation. Have Juds going out of 6 Headways Courses in with 4 Cranes.

The new Rolly-way has been laid down the 15th. S^o. Bord, to the 7th. Pill: E. from the Head^s. which is 5 Pill: from the face. The Engine has drawn the water out, to the face, on the N Side of the Barrier wall straight E. from the Shaft. But from the dip of the Seam to the S^o. E. next the King Pit E. Mg^t. the [Bud-39]

1828

(71)

tail of it is better than 2 Pills. from the E. face. This Water will have to be pumped out into the Engine Level.

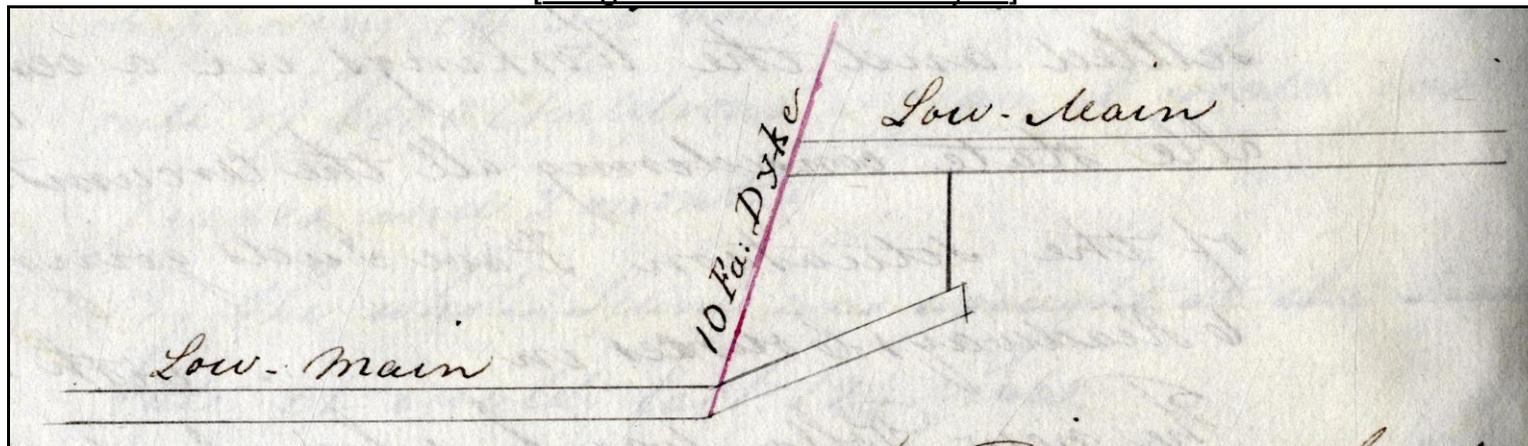
Drainage of Pills. on North Side of 10 fa. Dyke

The Water being now pumped out of the W. Waste, the drainage of the pillars on the N. Side of the 10 fath: Dyke ought to be set about. The best way & doing this will be to drive a Stone Drift, thro' the Dyke, at the tail of the water, 3 Pill: from the face; and to bore upwards out of it. The Drift to rise at the rate of 8 or 9 In: P. yard.

[Diagram of 10 Fathom Dyke]

Access for working the Pillars on the N. Side of the Dyke, after the Water is drawn off, to be made by drifting in the Five-quarter Seam, out of the Isabella Pit Shaft, thro' the Dyke, as below. The Five quarter lies 9 ½ Fathoms above the

[Diagram of 10 Fathom Dyke]



1828

(72)

Low-main

[Diagram of Low-main Seam]

Viewed King Pit – Main Coal Seam. The Shaft is now holed round N.W. and S^o. W. leaving the Shaft Walls 40 yds square. The Winnings N. are set away at 40 yds W. of Shaft nearly one Bord won out.

The S^o. Winning straight from the Shaft – 2 Boards won out beyond the Shaft wall.

[Diagram, King Pit Main Coal Winning]

Winning 15 yds 10 and 5
[Bud-39]

1828

(73)

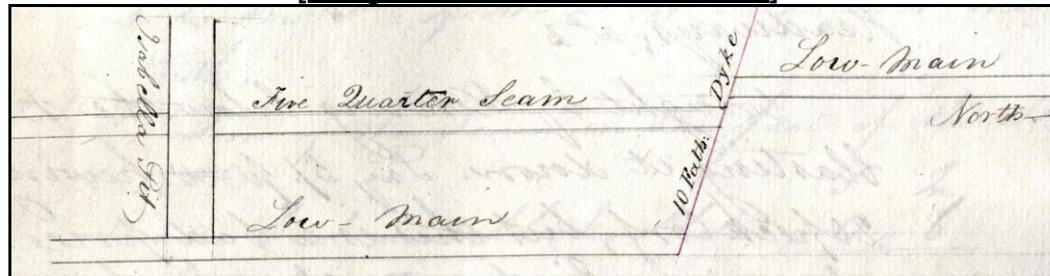
Mar:
5th

The Band is thickening rapidly to the S^o. and E. at **a** – the thickening being 2½ thick, while it is only 1½ ft in the N. Headways, at **b**.

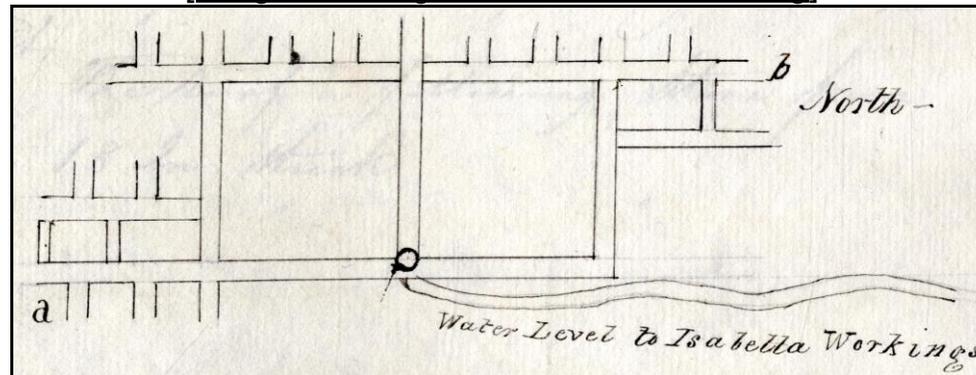
Wrought by Kerving below the Band & blasting it down. Pay 5/- P. xx. hewing for a 20 Peck Corf but this is s bad price. The Seam is subject to Balks, which makes the working very troublesome.

Have begun to make a trial to work the Dam above the Band: but I don't think it will succeed, owing to the frequent occurrence of Baulks in the Roof, the putting thro' of which is as bad as so much Stone drifting.

[Diagram of Low-main Seam]



[Diagram, King Pit Main Coal Winning]



1828
June 16th.

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Viewed the King Pit Upper-main Coal Seam.

Have now 6 – 15 yard Winnings won out to the S^o. of the Shaft, and 8 to the North.

Section of the Seam in the face of the S^o. Head^s.

	F.	In.
Course Coal, and black Slate	0	6
Coal, best part of Seam	2	4 ¹ / ₄
Coarse Coal	– ..	6
Band	1	4
Coarse Coal	– ..	2
Coal, tolerably good	– ..	9 ¹ / ₂
Band	– ..	1/2
Coal, tolerably good	1	1
	<u>6</u>	<u>3³/₄</u>

A Soft blue Thill, through all the Pit.

The Roof of a following Stone from 8 to 18 In. thick

[Bud-39]

1828

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	Face of W. <u>Mothergait</u>	Face of <u>N. Heads.</u>
Section of Seam in	Feet	In.
Coarse Coal, and Slate	0	6
Coal, best part of Seam	2	2 ³ / ₄
Ditto – Coarse	– ..	5 ¹ / ₂
Band	1	2
Coarse Coal	– ..	2
Coal tolerably good	– ..	9
Band	– ..	1/2
Coal	1	–
	<u>5</u>	<u>9³/₄</u>
	<u>5</u>	<u>11¹/₂</u>

The Section of the W. Mothergait is taken at 75 yards from the Shaft.

Are now working a trial to work the to part of the Seam, above the Band in the S^o. Side of the Pit. Pay 10/- P.

Score hewing for a 20 Peck Corf, including the making of height, in the Barroway which requires 4 F. .. 2 In. This is done by taking up the Band, about 6 ft. in width

Pay 7/- P. xx. Hewing where all the Seam is taken. Holing Walls 1/ 6 P. Yard.

No inflammable Air has ever yet been seen in this Seam

1828

76.

The air does not go further down the Pit than the Upper main Coal Seam, on acc^t. of the Shaft, and Brattice having been very much injured, by the Thrust in the Low-main. The Beaumont Seam Waste, is therefore laid dead, and is consequently Foul. This Seam lies Fath^s. below the upper-main.

1828

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these inconveniences, I decided to change the Air, and make the E. Shaft, the working and down-cast Pit. this may be very easily done by putting a close Stone Stopping round the bottom of the W. Pit, making a passage past the S^o. Side of the Brattice, into the bottom of the E. Shaft for the Tram-way, and

The Coals are at present drawn up the W. Shaft, which is the down-cast. The Machine Stands on the E. Side of the E. Shaft, which is the Up-cast. And it is necessary to have openings thro' the Brattice opposite each Rope, for the Brakeman to see thro'. This allows so much Smoke to pass thro' from the top of the up-cast and to go down the down cast Pit, that the Workings are constantly full of it, which is exceedingly annoying to the men, and at the same time prevents a correct judgement from being formed, by the shew of the Candle as to the state of the air. To remedy

[Bud-39]

by hanging one, or a pair of main-Doors, in the W. Mothergait.

By this alteration the down-cast Shaft and Workings will be Kep[t] free from Smoke, and by cleading the W. which will be the upcast, Shaft, up to the top of the pully-frame, the risk of any fire being thrown down the Pit will be prevented. An [occurance] which in the present state of things, might happen, and which w^d. be attended with very serious consequences