

Extracts of “The Mining and Smelting Magazine” concerning Weardale in 1860s

“The Mining and Smelting Magazine” was published in London monthly from 3 Jan 1862 till 3 Mar 1865. Later issues may exist but they are not on-line on the internet.

The on-line copies can searched, read and downloaded from Hathi Trust and from Google Books. The Hathi Trust catalogue page is at <https://catalog.hathitrust.org/Record/008616549> from which single page downloads are possible. All volumes are on Google Books, accessed by search of “Mining and Smelting Magazine”, from which whole volumes can be downloaded as full pdfs and searched. There are 7 volumes, each covering 6 months, except that vol.7 is only 3 months of 1865. Ernest Bate has downloaded pdf copies of all the magazines.

The magazine covers all aspects of coal and metal ore mining and metal manufacture, in the UK and round the world. Each month it includes:

- A number of relevant papers
- Abstracts and reviews of others papers and books
- A bibliography of relevant published material
- A list of relevant patents
- A review of the mining and metallurgy trade in each region of the UK
- Some overseas mining information
- Listings of market prices and production quantities and contracts of metals and ores
- A detailed stock market review of mining and metal stocks and shares

Within all this information, some matters concerning Weardale appear in 3 of the published papers and in some of the monthly trade reviews for Northumberland and Durham. In particular, some of the trade reviews list what blast furnaces are in and out of blast on specified dates. A separate document “Summary of 1860s Weardale Information in The Mining and Smelting Magazine” summarises the information.

Copies of the following useful papers are in separate documents:

- The Feb 1862 magazine (vol.1 p.120-122) contains a summary of the Gruner and Lan memoir. The full memoir is titled “On the Present Position of the Metallurgy of Iron in England”. Original publication was in the “Annales des Mines, 5th series, vol. XIX, 1861. The 5th chapter of the memoir concerns Iron Ores and was reprinted by Mining and Smelting Magazine in Jun 1863, as follows.
- The Jun 1863 magazine (vol.3 p.321-335) contains “The Iron Manufacture of the North of England. Districts of Cleveland, Durham, and Cumberland” by Gruner and Lan. This is abstracted from the “Annales des Mines, 6th series, vol. I, p.89.
- The Oct 1863 magazine (vol.4 p.223) gives a summary of the paper “On the Weardale Iron Ores”, given by Charles Attwood, at the Meeting of the British Association.
- The Nov 1863 magazine (vol.4 p.269-284) contains “Report on the Metallurgy of the District”, a paper given by J L Bell, T Sopwith, Dr Richardson and T Spencer, at the Meeting of the British Association. This paper includes sections on “The Manufacture of Iron in Connection with the Northumberland and Durham Coal-field”, “Lead Metallurgy of the District”, and “The Manufacture of Steel in Northumberland and Durham”.

This document (“Extracts”) contains copies of all the trade reviews for Northumberland and Durham. These were published under a title which varied through the years, starting as “Mining, Quarrying, and Metallurgical Intelligence” and becoming “Mining, Quarrying, and Metallurgical Review”, then “Trade Review of Mining, Quarrying and Metallurgy”, then “Current Review of Mining, Quarrying, and Metallurgy”, then “Local Review of Mining, Quarrying, Metallurgy, and Chemical Manufactures”.

A sample title page and publication details are given first.

Note that the pdf version of this document can be read easily if printed with two A5 pages on A4 landscape paper (requiring 24 single-sided sheets or 12 double-sided sheets).

Sample title page: Mining and Smelting Magazine, vol. 1, Jan 1862, Title page

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THE
MINING AND SMELTING
MAGAZINE:

8024³

A MONTHLY REVIEW OF

PRACTICAL MINING, QUARRYING, & METALLURGY,

AND

Record of the Mining and Metal Markets.

EDITED BY

HENRY CURWEN SALMON, F.G.S., F.C.S.

VOL. I.



JANUARY—JUNE,

1862.

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London:

PUBLISHED AT THE OFFICE, 79, OLD BROAD STREET CITY, E.C.

AND SOLD BY:

SIMPKIN, MARSHALL, AND CO., STATIONERS' HALL COURT,

J. B. BAILLIERE, RUE HAUTEFEUILLE, PARIS;

BAILLY BAILLIERE, CALLE DEL PRINCIPE, MADRID;

BAILLIERE BROTHERS, 440, BROADWAY, NEW YORK; B. DAWSON & SONS, MONTREAL;

T. T. BAILLIERE, COLLINS STREET EAST, MELBOURNE.

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Sample publication details: Mining and Smelting Magazine, vol. 7, Mar 1865, p.216

THE MINING AND SMELTING MAGAZINE is published on the afternoon of the 3rd of each month, on which day it can be procured from the Publishers (MESSRS. SIMPKIN, MARSHALL, & Co.) through any Bookseller or Newsman. Subscribers for periods of Six or Twelve Months may have it forwarded direct from the Office, post free, on the day of publication, at the following rates:—

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****** It is requested that advertisements for insertion in the MINING AND SMELTING MAGAZINE may be forwarded as early as possible in each month. Those intended for insertion in the APRIL number must be received at the Office before noon on Saturday, April 1st.

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The *Colliery Guardian* correspondent reports the position of this district during the latter half of the month as follows:—Matters appear to be going on pretty much as usual, and no material alteration for either better or worse is expected for some little time to come. There is an active demand for household and gas coal, but collieries that yield other varieties characteristic of the district are doing very badly. With respect to mining operations in the great northern coal-field generally:—Hartley Pit has been flooded with water lately, but has been again re-opened. The sinking at the Bedlington new pit progresses very slowly, owing to the quantity of water met with; this is issuing from a kind of quicksand. At the Newsham new pit a few coals are drawn daily, and it is expected to be ready for active operations early in the spring. The Bebside Colliery is one of the most extensive in the district, and 30 keels of screened coals are sent away daily, no less than 550 coal hewers being employed. Some new "winnings" are projected in this district. When the trade again revives, some movement will, no doubt, be made about them during the ensuing year. The collieries on the Wear are doing better than those in Northumberland, the gas and house coal collieries being pretty well employed. The operations underneath Lambton Castle are still in progress, for the purpose of securing the foundation of the structure, and in the course of them some curious phenomena have taken place. A bore-hole was put down from the Maudlin seam to the Hutton seam; when it holed a great quantity of gas came off, the men had to leave the rods in the hole, and the gas soon filled the lamps at the surface. After standing three weeks, the men went down to get the rods out of the hole. After they got them out the gas came away again, and men are now watching to prevent any one going to or near the pit's mouth with a light, as the gas would ignite at once near the surface. On Saturday last very large fleets of laden colliers, which had been detained by adverse winds, put to sea, no fewer than 250 having left Sunderland alone. The exports from the Tyne during the week ending December 14, include 20,188 tons of coal, 2,481 tons of coke, 3,897 cwt. of iron, and 3,506 cwt. of alkali, showing an increase in the shipments of alkali of 2,646 cwt., and a decrease in the shipments of coal of 3,974 tons, coke 797 tons, and iron 623 cwt. Among the imports during the same period were a cargo of iron pyrites from Antwerp.

During the last week the coal trade remains dull, but the increased activity in our iron manufacturing establishments to which we alluded a week or two ago, is maintained. The chemical market, too, is a trifle better, a considerable demand having arisen for exports to France. The freight market is in a state of suspense, few shipowners appearing inclined to speculate until it is known with certainty whether we are likely to go to war with America. What with depression in trade, the open and unhealthy weather, the uncertainty of the American affair, and the melancholy death of the Prince Consort, this is the dullest Christmas we have experienced for many years. The exports from the Tyne during the week ending Saturday, the 21st December, were 27,289 tons of coals; 3,297 tons of coke; 3,325 cwts. of iron; and 2,644 cwts. of alkali; being an increase in the shipments of coal amounting to 7,051 tons, and coke to 816 tons, and a decrease in the shipments of iron of 572 cwt., and of alkali 862 cwt.

NORTHERN COUNTIES.

In the Newcastle district all attention is absorbed in the terrible accident at Hartley New Pit. The scene of the catastrophe, and an outline of the history of the colliery, is thus given by the *Newcastle Daily Chronicle*:— " 'Hartley' is the name by which the 'steam coals' of the Great Northern Coal Field are generally known, in the same way as 'Wallsend' is the name by which our northern 'household coals' are popularly described. The name given respectively to these two classes of coals simply arises from the special kinds of coals being found, one at and near Hartley, and one at and near Wallsend. When coal owners or factors talk of 'Hartley

coals,' they are understood to mean coals well adapted for raising steam in marine and other boilers; and when they talk of 'Wallsend coals,' they mean coals well adapted for house purposes. The collieries in this district from which steam coal is got are situated along the Northumberland seaboard, extending from about Killingworth to near Warkworth. Hartley, Burradon, Seghill, and Cowpen, are four of the chief steam collieries in Northumberland. Seghill is the oldest of the lot. It was sunk about forty years ago, about the same time as the neighbouring colliery of Cramlington. It was fully expected, when these mines were put down, that coal of the quality and value of the main coal seam at Wallsend and Gosforth would be obtained. The owners were, however, disappointed in their expectations in this respect, and for some time it was feared that the undertakings would be entire failures. The value of steam coals was not then known, and it was not for some years after that their real worth was discovered. When that became known, the value of Seghill and all the surrounding collieries rose very rapidly. Now, and for a number of years past, it is well known that the collieries in that part of Northumberland have been the most valuable in the north of England. Messrs. John Carr and Co. were the lessees of all the above four collieries up to 1858. But in that year, owing to the disastrous effects the commercial panic of 1857 had upon their property, the Messrs. Carr were compelled to relinquish possession of them. The four collieries were sold by public auction in Newcastle, on July 20th, 1858. Seghill, which is situated about six miles north of the Tyne, was bought by Mr. Joseph Laycock. The colliery stock and plant alone was valued at £22,392. 4s. 11d. The whole concern, including the land attached—about 800 acres—farm stock and lease, &c., brought £93,000. Cowpen Colliery is situated near Blyth, and about eleven miles north from the Tyne. This colliery, having 304 workmen's cottages, and the lease of a farm containing 107 acres attached, was purchased by Messrs. Jos. Straker and partners for about £120,000. Burradon Colliery lies to the west of Seghill, but is about the same distance from the Tyne. It was sold to Mr. Joshua Bower, of Leeds, for £50,000, including workmen's cottages and other erections. Hartley Colliery is in the parish of Earsdon, and is nearer the coast than either Seghill or Burradon, but not more than six or seven miles direct north from the Tyne. It is an old-established concern, and was worked by Messrs. John Jobling and partners before it came into the possession of the Messrs. Carr. There are three seams in the mine. The High Main, at a depth of 38 fathoms, is four feet six inches thick. This seam is all but worked out. The Yard Coal is at a depth of 65 fathoms, and, as its name indicates, is a yard thick. The Low Main Seam, which is the present working one, is about 95 fathoms deep. It was sunk in 1830, a previous shaft, 80 fathoms deep, having been abandoned. The coals are chiefly shipped at the artificial harbour of Seaton Sluice, by a private railway of about two miles long. The colliery is held under an agreement for lease from Lord Hastings for twenty-five years, from May 1st, 1844, and comprises about 3,000 acres of coal. The certain rent is £1,200 per annum for the first three years of the term, and £2,000 per annum for the residue of the term. The lessees may surrender at the end of any year, with power to make up 'shorts,' of which £13,000 were estimated as due in 1858. At the public auction of the other three collieries, in 1858, Hartley was withdrawn, arrangements having been made with Lord Hastings for the Messrs. Carr to continue working the concern. The vend is estimated at from 90,000 to 100,000 tons. When the above collieries were disposed of, all of them except Burradon were sold subject to an agreement with the Tyne Improvement Commissioners that all the coals shipped by them in the River Tyne should be shipped in the Northumberland Dock during the existing lease or any renewed leases not exceeding fifty years from March 28th, 1852. In 1858, when the three collieries—Seghill, Burradon, and

Cowpen—were sold, their aggregate vend of large coal was not less than 410,000 tons. Since the commercial panic in 1857, the Messrs. Carr have been most unfortunate. At that time they ranked amongst the foremost men in the northern coal trade. Since then misfortune after misfortune has followed them. Not two years ago the calamitous explosion at Burradon took place, when the colliery was under the charge of Mr. Charles Carr, and now this said accident at Hartley has befallen them. Very general sympathy is felt for them in the district, although, at the same time, the system of working so large a colliery with only one shaft, is very widely condemned, and government interference with the plan, which is not uncommon, is talked about in various, though not influential quarters. In the present instance, blame is attributed to the managers, for not continuing the 'staffle,' with its ladder, to the high main seam, in which case it is believed that the unfortunate men could have been rescued in a few hours. With respect to the future of the colliery, it is thought that no attempt will be made to work it again, at all events not in the present condition of trade. It has never been a very profitable concern, and this accident will involve an outlay which it may not be thought worth while to invest. The particulars of the accident are too well known to require any description here. With regard to the shaft itself it was of very capacious dimensions, divided at the centre by a wooden brattice through its entire length, thus dispensing with a second pit. Adjoining the pit on the east side is the engine-house. Ever since its formation Hartley New Pit has been subject to floods, and it is only very recently that by means of most ponderous machinery the miner has been enabled to continue his labours. Some six or seven years ago, the colliery was completely inundated in consequence of the machinery being too light for the feeder, and was obliged to be laid in. About four years ago the present pumping engine, the largest of its kind we believe in the north of England, was erected. The beam weighs no less than forty tons. Still, notwithstanding the matchless machinery, the water continued to inundate the workings. For a time it was thought that the sea must have been struck, and the abandonment of the colliery was all but decided upon. It was only since they holed into the old workings of the 'Mill Pit' that the owners have had the satisfaction of seeing their expensive undertaking free of water, and of receiving some remuneration for their capital. The accident occurred about ten o'clock on Thursday morning, January 16th. Had it taken place a little later on in the day, its effects would have been comparatively trifling, for the night shift being in process of coming to bank, the pit in a short time would have been deserted. Out of the 200, however, whose hours of labour had expired, only sixteen had left the shaft, and eight more were at the moment being drawn to the bank in the cage by means of the winding machine. When about half way up, the ponderous beam of the engine snapped at the axle, and the outer half—a mass of iron upwards of twenty tons in weight—fell sheer down the shaft. The falling mass appears to have first struck the brattice, which it smashed and scattered like chaff in its downward career. The iron cage, in which the men were riding to the top, was shattered, and its unfortunate inmates overwhelmed by an avalanche of *debris*. Two of the unfortunate men were instantly killed and precipitated to the bottom, while three others lingered only a very short time after being struck. The remaining two were also injured, but not seriously, and after the expiration of twelve weary hours, during which every exertion was made to save them, they were ultimately rescued and brought to the bank. One lad, named William Sharp, managed to climb half way up the pumps, and there held on until relieved.

It was soon found that the portion of the shaft above the yard-seam had been completely blocked up with the *debris* broken by the fall of the beam, and that upwards of 200 men and boys had been buried alive.

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The noble efforts made to save these, and the unhappy failure of all these endeavours, are matters of history, which will live longer in the minds of English people than the records of many battles and sieges. All the bodies of the men in the Yard seam were recovered by Sunday, the 26th. A good deal of discussion has already taken place in the newspapers on this lamentable affair; but we prefer reserving any observations on it until after the official inquiry which will take place. It must be remembered that the accident is one almost without precedent.

THE IRON TRADE OF NORTHUMBERLAND, DURHAM, AND NORTH YORKSHIRE.
—From the circular of Mr. Hoyle, of Newcastle, we make the following extract respecting the increasingly important trade of Northumberland, Durham and Cleveland:—Referring to that now great rival district on the north-eastern coast of England, and in the proceedings of which much interest is now felt by the trade, what are the results which may be reported from the operations of last year? The number of furnaces that have been in work, for longer or shorter periods throughout the year, is 66. The aggregate produce of pig-iron from these furnaces may be estimated at 607,000 tons. The present number in operation is 60, and there are now 40 furnaces out of blast. The disposal of the pig-iron made may be stated as follows:—

	Tons.
Total stock, January 1st, 1861	62,000
Make during the year	607,000
	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>
	669,000
Shipped for exportation abroad	103,000
Used in the rolling mills and foundries in district, shipped for delivery coastwise, and sent away by rail	506,000
	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>
	609,000
Total stock in the hands of makers and in store, ————	
January 1st, 1862	60,000

These statistics, compared with those of the previous year, show the following results:—That 66 furnaces in all have been employed in place of 68, and that the make has been curtailed by about 26,000 tons. That 60 furnaces are now in blast, instead of 65 at the close of 1860. The foreign exports show an increase of 38,300 tons compared with the foreign shipments of 1860, and the home consumption a diminution of something like 74,300 tons. The stocks are two thousand tons less than they were twelve months ago, and from their insignificance, contrast strikingly with the enormous stocks on hand in Scotland. It may be asked, Why this amazing discrepancy? The answer is simply this, that in the north of England there exists no class of buyers, as is the case in Scotland, intermediate between the producer and consumer: the consequence is, that beyond the ability or inclination of the maker to hold, the manufactured article passes directly from the furnaces into consumption. In the absence of the artificial element that prevails in Scotland, the make of pig-iron is regulated by the demand for consumption, and thus the large stocks that press so heavily on the Scotch market are avoided. Here, as in Scotland, the large number of furnaces ready to light on the revival of trade must for some time keep in check any tendency to an advance in price; whilst, on the other hand, it may be stated that in the Cleveland locality large rolling mills in connection with some of the furnaces have been built, and others are in course of erection, the effect of which will be to take out of the market a large portion of the pig-iron made in the district. Throughout the year, the quotations issued from an official source have ranged from 50s. to 47s. 6d. for No. 1, and from 45s. to 44s. for No. 3, shipped free on board. The present quotations are 50s. No. 1, and 44s. No. 3.

NORTHERN COUNTIES.

THE Hartley catastrophe has absorbed all attention in this district for the last month. The verdict of the jury and the result of the enquiry are too well known in every corner of the kingdom to require recapitulation. As to the immediate cause of the accident, the breaking of the beam, this was undoubtedly brought about by the breaking of the pump "spear" or "rod," in consequence of the bucket getting fast in the pump just as the engine commenced to make her strike. Hence the *original* cause of the accident was a defect in the pit-work. How the breaking of the "spear" led to the breakage of the beam is involved in considerable obscurity; but it seems that when the spear broke, the beam sprang in with terrific force, breaking in the concussion. That under such circumstances the beam, if of proper construction and placement, should not have broken, is quite clear. But it seems to have been originally badly proportioned, having too much metal about the centre; and besides, the gudgeons seem to have been keyed too tight. Still the beam, notwithstanding these deficiencies, might have borne the shock of it, had it not been for the frosty weather, which had affected the iron.

The secondary cause of the lamentable loss of life accompanying this accident—the absence of a second shaft—has more impressed itself upon the public mind. In the foregoing pages of this number, our readers will have the opportunity of reading the various opinions expressed on this subject, by competent persons, at the discussions of the Society of Arts and the Geological Society of Manchester.

One of the numerous issues arising out of an occurrence which has so moved the public mind, is the notion which has sprung up of making employers pecuniarily responsible to their workmen for accidents. This has found a tangible expression in the Bill which Mr. Ayrton has brought before the House of Commons. A recent number of the *Colliery Guardian* has an admirable article on this subject, which we make no apology for reprinting, particularly as we are satisfied, from certain statements made at the meeting of the Society of Arts, on the 19th ult., that the question is far from being generally understood.

The bill introduced into the House of Commons by Mr. Ayrton, to "amend the law relating to the recovery of damages by workmen and servants, and of compensation by the families of workmen and servants killed by accidents," is remarkably brief, and is also remarkably comprehensive, for, if sanctioned by the legislature, it will very materially increase the responsibilities of all classes of employers. As the law now stands, employers are bound to provide suitable and sufficient machinery, apparatus, or tackle for the proper and safe carrying on of the works they have undertaken, and if any servant shall suffer injury while engaged in his proper vocation through the imperfection or inadequacy of the apparatus provided for him, the employer is liable for damages, and if the servant shall have been killed his representative is entitled to compensation. This is reasonable and just, for, as the employer undertakes to provide proper machinery or tackle, and the servant accepts his position on this implied condition, the arrangement is equitable, and both parties should be bound to fulfil their several parts of the contract. Further than this, an employer is responsible for the actions of his servant so far as they spring out of the performance of his duties, and as they affect extraneous parties. Thus, if a boatman run his boat against another through carelessness, and thereby cause serious damage to that other boat, the employer of the boatman is in the first place responsible for the damage sustained. A master, however, is not answerable for the wilful acts of his workman, nor for any acts done beyond the scope of his employment. Neither is he responsible for injuries sustained by one servant through the misconduct or negligence of another servant. These principles are of so much importance at the present time that it may be expedient to explain them more fully, and with the aid of higher legal authority than we can bring to bear on the subject. Mr. Fowler, in his admirable work on "Collieries and Colliers," explains with remarkable brevity and clearness the law bearing on the responsibility of employers for injuries sustained by their servants. He says that if the negligence or unskilfulness of the

employer himself causes an injury to a person engaged in the business, the former is responsible for such consequences. It is also established that a master is liable to third persons for any injury or damage through the negligence or unskilfulness of a servant acting in his master's employ. The reason for this is, that every act which is done by a servant in the course of his duty is regarded as done by his master's orders, and consequently is the same as if it were the master's own act. He is also bound to take all reasonable precautions for the safety of his servants. Thus, if hidden and secret dangers exist upon his premises, known to him and unknown to his workmen, it is his duty to disclose them to the latter, that they may take precautions for their own safety, and if he neglect to do so he is responsible for any injury they may sustain through their ignorance. This rule implies an obligation on the part of the employer to exercise due vigilance, either himself or through competent servants, for the purpose of detecting any unsoundness or imperfection in the machinery or apparatus employed by him. A colliery owner would be culpable if he induced any man to go down his pit under the persuasion that the rope and other parts of the winding tackle were safe, when he himself knew, or had reasonable ground for believing, that they were dangerous. We are not aware that there is any specific provision requiring the master to employ competent persons as subordinate officials, but from the general tenor of the law there can be no doubt that if in any case it could be proved that a servant had sustained personal injury through the incompetence of a superior servant who was authorised to direct him, damages would be obtained in one of the superior courts. Here, however, the responsibility of the employer stops. It has recently been decided more than once, by the very highest authority, that a master is not responsible for injuries to one fellow-servant caused by the negligence of another fellow-servant in his employ. In the celebrated Barton's Hill case, which was taken to the House of Lords, this principle was affirmed. Lord Cranworth, in giving judgment, spoke of the responsibility of employers for injuries done to third parties, and then proceeded to ask whether the same principle applied to the case of a workman injured by the want of care of a fellow-workman engaged in the same work. His Lordship decided in the negative. When, said he, the workman contracts to do work of any particular sort, he knows, or ought to know, to what risk he is exposing himself, and among the perils he has to encounter are those arising from want of care or judgment on the part of his fellow-workmen. As these cannot be averted by any precaution that his employer can adopt, he deliberately accepts the risk in consideration of the wages he has to receive. In the case of "Griffiths v. Gidlow" the same principle was upheld, and the decision was to the effect that as the injury sustained by the plaintiff had not arisen through any fault of the employer, but through the negligence of a fellow servant, the defendant was not responsible. Indeed, when we carefully consider the matter, it is somewhat surprising that any litigation should have arisen for the purpose of fixing upon employers the responsibility of accidents to workmen arising from the negligence or misconduct of their fellow workmen, for the principles of English law, as applicable to this question, are the principles of common sense and justice. If workmen are to be treated, not as children needing constant protection, but as rational men, able to make bargains for themselves, they ought to abide by any arrangement which they deliberately accept. In a contract of service between a colliery owner and a hewer, the former undertakes to safely convey the latter to and from the surface and the bottom of the shaft by providing adequate winding tackle; he also undertakes to keep the mine in a proper state of ventilation so far as may be practicable, and also to employ suitable and competent men as officials. On the other hand, the working collier, knowing the risks of his vocation, accepts them on condition of his receiving the wages usually paid in the district. If any accident should accrue to him through insufficient or unsound tackle, or through bad management of the mine, the employer is responsible, and may be amerced in commensurate damages; but on the other hand, he and his fellow workmen are to a certain extent independent of their employer. They are subject to general and special rules, which the law has undertaken to enforce, but if any of them so misconduct themselves as to injure their fellow servants, they must all abide the consequences without reference to the employer, who, as he had nothing to do with producing the disaster, cannot fairly be charged with any responsibility connected therewith.

Such is the law as it now stands, but Mr. Ayrton, sustained by Lord Robert Montagu, proposes that hereafter whenever any workman or servant shall be injured in consequence of his master, or any other person employed by his master, not doing

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any act or providing anything which may be requisite or proper, or doing any act or providing anything that may be improper in connection with the business in which that unfortunate servant has been engaged, then the master shall be liable to damages for the injury, and may be sued for the same by an action at law. In the case of the death of any workman or servant through neglect or default, the same person who would have been liable to action for damages shall be liable to an action for compensation. The scope of this benevolent scheme will be readily understood by supposing it applied to a few cases familiar in their main characteristics to all concerned in the working of collieries. Some years ago there occurred a fearful explosion at the Ince Hall Colliery, near Wigan, through which more than a hundred workmen lost their lives. The verdict, at the conclusion of the inquest, declared that there had been an outpouring of gas at a certain part of the mine, which was defined within very narrow limits, and that the gas must have been ignited through the incautious use of a naked light by the workman employed there. Had Mr. Ayrton's law been in force then, the unfortunate proprietors would have been liable to an action for compensation from the representatives of each of the deceased, and had such actions been raised, strong evidence would have been adduced to prove that the explosion was caused through the negligence or misconduct of a fellow workman. Hundreds of lives are lost every year through want of sufficient propping, and it very often happens that one man's life is sacrificed through the negligence of another who may be working in the same place, and if Mr. Ayrton's bill were to become law multitudes of cases would arise of colliery owners being charged with the responsibility of deaths accruing under such circumstances. Sometimes it happens that colliers when ascending the shaft are drawn up to the pulleys and thrown out of the baskets or tubs, all through the negligence of the engine tender,—colliery owners would be liable to damages in these cases, though nobody can suppose them to be morally accountable for casualties arising under such circumstances. Boiler explosions may generally be traced either to imperfect materials or the bad management of the persons charged with the duty of attending to the boilers; but by the proposed law the owners of the boilers would be liable to actions for damages or compensation for the injury sustained thereby. We might go through a complete list of the causes of colliery accidents, and find in each an illustration of the way in which the new bill, if it became law, would affect the interests of colliery owners. Be it also noted, that damages are to accrue not only from death but from injuries, and any man who is acquainted with the working of a colliery will at once apprehend what a boundless field would be opened for vexatious litigation and ruinous expense. When an accident occurs to an excursion train, and a number of people are slightly, though perhaps few are dangerously hurt, it is the business of the railway company's local manager to visit all the sufferers as quickly as possible, and arrange the terms of compensation. Delay in such a case is dangerous, for in every district there are benevolent attorneys ready to espouse the cause of the injured without any prospect of payment beyond what is to be derived from the consciousness of vindicating the poor and the hope of participating in damages. The application to collieries of any such law as that relating to compensation for railway accidents would create endless quarrels and confusion, and eventually close one-half the collieries in the kingdom.

It must not be imagined that the benevolent project of Mr. Ayrton will affect the interests only of colliery owners, for there are very few employers in any of the great branches of industry who would not be victimised by its provisions. The case of shipowners will afford as striking an illustration of its injustice and folly as that of colliery owners. Ships are very often wrecked through the negligence, the incompetence, or the mistakes of either captains or their subordinates, and if shipowners were to be mulcted in compensation by the surviving relatives of the crews, who had been lost through misfortune or misadventure, they would soon find themselves sorely beset with claims arising out of such casualties. In other trades the effect of the law might not be so flagrant, but the injustice perpetrated would be palpable and revolting. It is, therefore, incumbent on all employers to adopt prompt and effectual means for preventing its receiving the sanction of the legislature. Like many other foolish and pernicious schemes, it is pushed forward under the pretext of philanthropy, and no doubt its promoters will secure some degree of respect and attention from the House of Commons, by representing it as merely an extension of a principle acknowledged in other cases to the protection of the working classes. Its real effect, so far as they are concerned, would be to contract their sources of subsistence by preventing the investment of capital in undertakings such as are at

once hazardous to property and perilous to life. We need not, however, dwell on this point, for the sketch we have given of the actual state of the law proves that the legislature has taken all reasonable precautions within the scope of its jurisdiction for the prevention of accidents to workmen through the parsimony or heedlessness of employers. The scheme now proposed is one of a series of measures, the total effect of which would be to virtually confiscate a large amount of the capital invested in collieries and other analogous undertakings. We believe its only chance of success will spring from a misconception of its real import, and, therefore, we trust that all who comprehend its true character will be at once energetic and vigilant, and thereby procure its prompt and summary rejection.

Trade Review for Northumberland and Durham, 3 Apr 1862, Mining & Smelting Mag., vol. 1, p.274

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The prodigal munificence with which the public subscribed to the Hartley Relief Fund has become a source of embarrassment, and may end in serious difficulties. At a recent meeting at Newcastle, the treasurer, Mr. W. Woods, reported that £54,022 was the amount in his hands; in addition to which there was a sum of £18,000 in the hands of the Lord Mayor, and a further sum of £262 to be received, making upwards of £72,000. Of this amount the Finance Committee have recommended the investment of £60,000 in the debentures of North Eastern and Newcastle and Carlisle Railway Companies, and the Tyne Improvement Fund, at rates that will produce £2500 a year interest. The £12,000 remaining will be left in the hands of the treasurer, or invested in securities readily available, to meet current payments. The following five gentlemen were named as trustees of the fund: Sir W. G. Armstrong, Messrs. John Clayton, R. B. Sanderson, jun., Hugh Taylor, and T. E. Forster. The application of this surplus fund is the great question to be decided. It has been proposed by the Committee that it should be applied to the formation of a permanent fund for the counties of Northumberland and Durham; but this is objected to by some, who are, however, willing that the surplus be applied for the foundation of a fund which shall embrace the nation at large. At the last meeting of the general Committee, however, a resolution was passed disclaiming any desire to deal with the funds except according to the wishes of the subscribers. No doubt the proposition to organise a permanent fund for the counties of Northumberland and Durham is a practicable scheme; while an attempt to establish such an organisation for the whole kingdom would probably fail, however desirable it might be to see it accomplished. Mr. Joseph W. Pease, of Darlington, has addressed a letter to Mr. Hugh Taylor, chairman of the Northern Coal Trade, containing suggestions as to the establishment of a Miners' Permanent Relief Fund. The *Newcastle Daily Chronicle*, speaking of the coal trade of this district, says it has been worse this year than for the last sixteen years. For household and manufacturing coals the demand has been especially bad. After paying freight and expenses in London, some manufacturing coals lately sent to London from the Tyne have not left two shillings as their price per ton at Shields! Of course at such a price they could not be produced. Bad though this is, the position of some of the London contractors for inland coals is even worse. We hear of fields having been taken in the neighbourhood of the metropolis for storing the coals coming from the midland counties that cannot be sold. The coal agents having bound themselves to take a certain quantity of coals, they are compelled to take them, and, not being able to sell them, they have to be put out in fields in the suburbs, to the great loss, no doubt, of the purchasers.

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The *Colliery Guardian* gives the following review of the trade of this district towards the end of this month. This being Easter week, and the holidays interfering with business somewhat, there is nothing remarkable to report about the condition of trade in this neighbourhood. We contrive to keep up the increased activity, and the aspect of commercial affairs is decidedly better than it has been at any previous time this year. The coal trade is, however, flat, only the household and coking collieries doing much business. The gas-coal collieries, which have been moderately well employed all winter, are feeling the effects of the long-light evenings, for, as the days extend, their working-days shorten, and in a few weeks they will arrive at their slackest season. A local paper, in speaking of the rapid development of the Cleveland district, says:—"All works in the neighbourhood are fully employed, and as the year advances no doubt the export trade will increase. One fact worthy of note in connection with the trade in this district is, that whereas in 1860 only 30,000 tons of iron were shipped to France, yet in 1861 somewhat over 90,000 tons were despatched to that country, showing the benefit the ironmasters and trade in general of this district have derived from the French treaty, which has in a great measure compensated for the falling off of the American trade. Two of the principal firms are at present engaged in the execution of large orders for railway chairs for the South of France, and the shipments that have been made so far as the year has advanced, have principally been to that country: so that there is every reason to expect that this year will fully come up to last, if not surpass it, and with the advance iron has got this last week or two, it will encourage the manufacturers to push their trade more in this district. A Staffordshire firm, wishing to share in the prosperity enjoyed by the Cleveland district, is said to have purchased 200 acres of land at Grosmont, near Whitby, for the purpose of erecting blast furnaces, the ironstone in that district being supposed to be rich, but not so thick in the strata as the more northern parts of the Cleveland bed, which has its terminus near Middlesbro'. There have already been some unfortunate works erected in this district at Rosedale. The blast furnaces and engine-house, built on a bad foundation, gave way and fell over. We hope the Messrs. Bagnall, who are the purchasers of this new royalty, will be more fortunate than their predecessors. Mr. Snowdon, late of the firm of Snowdon and Hopkins, Tees-side Iron Works, Middlesbro', Mr. Leeman, solicitor, York, deputy-chairman of

the North-Eastern Railway Company, and Mr. Muschat, coal-owner, are stated to have purchased a plot of land adjoining the above works, for the purpose of erecting steel works. Whether these gentlemen intend to manufacture steel in all its different kinds, similar to some of the large Sheffield firms, or intend merely to manufacture steel plates for ship and boiler purposes, we are not in a position at present to say. Now that there has become such a demand for armour plates, and the resources of the Cleveland district being fully able to cope with undertakings of this kind, should those gentlemen go into this trade we see no reason why they should not succeed, especially as we know that the Cleveland plates are quite able to bear the tests submitted to them by the Government in all their different forms." The exports from the Tyne last week included 39,790 tons of coals; 2,341 tons of coke; 3,699 cwt. of iron, and 10,325 cwt. of alkali, being an increase of 5,334 cwt. in the shipments of alkali, and a decrease in the shipment of coals of 1,153 tons; coke, 180 tons; iron, 6,005 cwt. Among the imports were 16 tons of scrap-iron from Oporto, and cargoes of pit props, &c., from Christiansand and Arendahl.

Trade Review for Northumberland and Durham, 3 Jun 1862, Mining & Smelting Mag., vol. 1, p.408

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The news of fresh Federal successes, brought by the last American mails, continue to impart greater confidence in the various departments of local trade—notably so in the iron manufacture. It is understood that American orders have been received in Staffordshire to a much larger extent than for some time previously, and if this favourable symptom of reviving commerce between the States and Great Britain continue, the Tyne and Wear will participate in the benefit conferred. Already the tone of the local iron market is firm; the furnaces and factories on the Tyne are improving; and in Cleveland, parties engaged in the production of iron, are actually busy. Concerning the coal trade there is scarcely any thing to be said. The steam and coking kinds are in tolerably good demand, but other sorts are in only very middling request, and none but the steam collieries are more than moderately busy. Chemicals have undergone no change for about a fortnight, and the trade is dull. Among last week's exports from the Tyne were 50,120 tons of coals, 2,089 tons of coke, 18,087 cwts. iron, and 5,988 cwts. of alkali, being an increase in the shipments of coals of 35,967 tons; coke, 350 tons; alkali, 3,445 cwts.; and a decrease in the shipments of iron of 2,692 cwts. The imports included cargoes of pit props from Drontheim, Libau, Dram, Gothenburg, Saltkallau, and Uddewalda; pyrites from Stavanger and Levanger: 2,210 bars of iron and 1,920 boxes of scrap iron from Gothenburg; a cargo of copper ore from Pomaron; and a cargo of sulphur ore from Rotterdam.

Trade Review for Northumberland and Durham, 3 Jul 1862, Mining & Smelting Mag., vol. 2, p.48

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—If there be any change in the state of commercial affairs here, it is for the worse, but it is difficult to say whether any alteration has really taken place. This is usually a dull period of the year; the spring orders have been completed, and the autumn orders are to come, so that the apparent dullness may only be the normal condition of the season. The *Newcastle Chronicle*, however, tells us that "the prospect for the autumn and winter months is not so assuring as it was a short time ago. Already many have been discharged from the Elswick works, and it is understood more will follow; indeed, according to present appearances and reports, a large number of the Ordnance works will shortly be laid in. The works of Messrs. R. Stephens and Co. and Messrs. R. and W. Hawthorn, are at present tolerably well employed, but there is no briskness in either establishments, and orders come in very slowly. A reduction in the number of men employed in these works is not unlikely to take place shortly. The other manufacturing works in Tyneside are in much the same state as these we have just mentioned—working, but not busy, and with few or no orders coming in. Altogether the look out in this district is not at all cheering, and it behoves all parties, workmen, tradesmen, and employers to prepare for a period of prolonged depression, by judicious husbanding their resources."

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—Trade here is in much the same condition as it has been at any time for the last two months. The coal trade remains just as before. The monthly statement of the blast furnaces in South Durham and Cleveland shows no advance on that of the previous month, precisely the same number being in action at both periods. The comparative monthly returns for the last four years are as follows:—

July 1, 1860	....	52 furnaces in blast ;	22 out of blast.	Total	74
"	1859	....	54	"	13
"	1858	....	49	"	14
"	1861	....	49	"	27
				"	67
				"	63
				"	76

The new winning at Camboise, near Blyth, is proceeding very favourably. The workmen have sunk through the clay and quicksand, which fortunately were only thin, and after a short depth of rock they came upon a stratum of coal and shale 4 feet 6 inches in thickness. At Monkwearmouth, new tubing is being placed in the deep pit, which will henceforth be used solely as an up-cast, and for drawing coals.

At Sunderland, from the 5th to the 12th of the month, no less than fifteen vessels were set afloat on the Weir. On the 1st day of the month, there were 100 ships of various sizes in process of construction ; twelve of these were iron screw steamers. Respecting the trade of Tyneside during the present year, the *Gateshead Observer* published among others the following interesting statistics:—"The exports of coal and coke for the first five months have risen from 2,704,381 ton in 1860, and, 2,995,109 tons in

1861, to 3,190,928 tons this year. France continues to be our best customer. Pig-iron exports have increased from 111,205 tons in 1860, and 154,670 in 1861 to 183,709 this year. Bar, bolt, and rod iron also show an increase over 1861, although not quite equal to 1860. Railroad iron, however, as might be expected, exhibits a decline, although not to any great extent. Cast-iron has increased to the extent of 1,000 tons. Hoops show an improvement as compared with last year, as does also cast-iron to the extent of 15 per cent. Steel has increased from 9,510 tons last year to 10,186 this. Of pig, rolled, and other lead the quantities exported (in tons) were in 1860, 9,240 ; in 1861, 7,246 ; and this year, 11,454. The exports of lead ore, red and white lead, and litharge of lead, were, in 1860, 2,696 tons ; in 1861, 2,418 ; and in 1862, 3,684 tons. Amongst the imports were 208 ingots of lead from Gothenburg ; two cargoes of pyrites from Huelvar, and a quantity of copper ore from Drontheim ; a cargo of pyrites from Antwerp, and a cargo of iron pyrites from Pomaron.

Concerning the Consett establishment, this great hive of industry is gradually rising from the deep depression under which it recently suffered, and that the colossal establishment upon which its prosperity or otherwise, almost exclusively depends is now well employed, with a large number of orders on hand. It has attained considerable celebrity for its make of plates, and since Whitsuntide, the men have been employed on Mondays as well as other days in the week. A new blast furnace in course of erection, by Mr. Godley, the engineer, on a greatly improved plan, will turn out twice the ordinary quantity of metal, and other improvements are going on which show that no anticipation, at least, is entertained of decline or decay.

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The general trade of the two Northern counties has not undergone any considerable change since last month, but trade continues to improve by slow and steady gradations. The coal trade remains about the same; many collieries are working more or less short time, but as the cold weather comes on business will no doubt improve. Owing to a general concurrence in the advice tendered on two or three occasions this year by the committee of the Coal Trade Association, the London coal market is in a better state than has been the case for some time, and with a view to maintain so desirable a position of affairs the committee have issued to the trade a circular in which they remark :—
 "I have it in direction from the chairman and general committee of the coal trade to express their gratification at finding that their appeals to the trade on the imperative necessity of a curtailment of shipments, most especially to the London market, have been responded to on the part of the coalowners. The committee cannot but believe that the owners of collieries will agree with them in this view, both of present circumstances and the prospects of the future, and act in accordance with that conviction. The course the committee would recommend is, for the collieries to adhere to the limited number of working days in each fortnight before mentioned,

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until the state of the market shall be such as to warrant a discontinuance, a result which the committee trust a few weeks more will bring about, should this arrangement continue to be acted upon."

In the iron trade we have but little change to note. Prices range low, but the demand for iron of local brands is said to be tolerably active, and it is understood that some of the principal firms have heavy orders in hand, which will keep them busy for some time to come. A return of blast furnaces in Cleveland and South Durham on the 1st, gives the following figures :—

August 1, 1862	....	55 in blast ;	24 out of blast	.....	Total	....	79
"	1861	....	54 "	25 "	"	....	79
"	1860	....	52 "	22 "	"	....	74
"	1859	....	54 "	13 "	"	....	67
"	1858	....	49 "	14 "	"	....	63

Arrangements have been completed for "tapping" the Marchioness of Londonderry's two new blast furnaces at Nose's Point, about a mile to the south of Seaham harbour. They are capable of producing from 400 to 500 tons of iron per week, and will require from 1,200 to 1,500 tons of coke per week, and 60 tons of lime per day to reduce the ore.

The shipping trade is rather active and freights have a little advanced. Indeed, the shipowners, perhaps, have less to complain of than any other branch of local commerce considering the general depression. Among the exports from the Tyne during the month were 165,921 tons of coal and 2,997 tons of iron. Among the imports: cargoes of pyrites from Rotterdam, Pomaron, Genoa, Antwerp, &c.; 2,153 bars of iron from Gothenburg; 1,723 bars of lead and mineral ore and a cargo of sulphur ore from Seville, and a cargo of iron ore from Egersund.

The Trade and Revenue of the Wear.—From the River Wear Commissioners' half-yearly return, just issued, it appears that during the six months ending June 30, 1862, 5,537 vessels, registering 979,536 tons, cleared from the port of Sunderland, the tonnage rates of which vessels amounted to 5,543*l.* 6*s.* 7*d.* In the corresponding half-year of 1861, the number of vessels was 5,616, registering 955,628 tons, and the tonnage rates received were 5,238*l.* 0*s.* 3*d.*, being a decrease of 79 vessels, but an increase of 23,908 register tons, or 2·5 per cent., and 305*l.* 6*s.* 4*d.* on the tonnage rates of corresponding half-year of 1861. Of the above vessels 2,767, registering 562,160 tons, paying 8,220*l.* 12*s.* 3*d.* dock tonnage rates, cleared from the South Dock, against 2,846 vessels, registering 539,308 tons, paying 7,729*l.* 8*s.* dock tonnage rates in corresponding half-year of 1861, being a decrease of 79 vessels, but an increase of 22,852 tons, or 4·2 per cent., and 1,100*l.* 4*s.* 3*d.* dock tonnage rates on the corresponding half-year of 1861. 361 vessels, registering 93,776 tons (loaded in the river) passed through the dock, against 292 vessels, registering 75,870 tons in corresponding half-year of 1861. The coasting trade shows an increase of 20,588 tons (of which due to dock 9,531 tons), being 3·8 per cent.; but the European trade shows a decrease of 8,228 tons (although that of the dock increased 3,979 tons), being 2·8 per cent.; and the beyond Europe trade shows an increase of 11,548 tons, of which due to dock 9,342 tons, being 13·0 per cent. The average tonnage of vessels frequenting the port has increased 8 per cent.; and of vessels loading in the South Dock 17·6 per cent. The increase of vessels above 500 tons, 54 in number, being 71·1 per cent. During the past month of June the total revenue amounted to 7,401*l.* 2*s.* 1½*d.*, 1,011 vessels having cleared from the port, and their register tonnage amounting to an aggregate of 171,814. 244,531 tons of coals were shipped during the month, of which quantity 133,756 were shipped in the South Dock.

Among new undertakings there are favourable accounts of the Cambois mining, belonging to the North Seaton Company. The men have sunk to

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a depth of more than twenty-five fathoms without meeting any obstacle, and they are making rapid progress downwards. The new pit belonging to the Seaton Delaval Company, under the management of Mr. T. E. Forster, promises to be one of the largest in the trade, and it will be conducted on the most advanced scientific principles. The completion of this pit adds another to the eight existing shafts at the Seaton Delaval Colliery. At the Sleekburn new winning, belonging to the Bedlington Coal Company, the sinkers have succeeded in reaching the Low Main Seam, which is nearly six feet thick. Mr. Coulson superintended the work, his resident foreman being George Emmerson, and it was while working here that the Hartley accident occurred, and their services were called into requisition. The sinking has been a troublesome one, the stratification in some places being exceedingly soft, so much so, that at one time five sets of pumps were required to keep the water under. The depth of the pit is about 120 fathoms, and it will be worked on an extensive scale.

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—General trade in these counties is much the same as it has been for some months, and there is little change to report one way or the other. The iron trade maintains its activity, and seems likely to preserve it for some time to come; several of the large firms having received some good orders lately. Since the opening of the new railway to Rosedale there has been a gradually increasing demand for the iron ore of that district, and at present we hear that the supply is not equal to the want. This ore is found exceedingly useful for mixing with the Cleveland ironstone, and it is coming into great favour further north. The furnaces in Cleveland are doing well, and if the recent advance in Scotch pig metal had been supported four or five fresh furnaces would have been blown in. The iron works keep busy, and employment is given to a large number of skilled mechanics and artizans. A return of the state of the blast furnaces in South Durham and Cleveland, on the 1st of September, shows a very encouraging state of affairs. There are not only more furnaces in existence than was the case at the same time last year, but there is still a larger proportion of them in blast, as the following figures will show:—

1862	.....	Furnaces in blast,	55	;	out,	24	;	.....	Total	....	79
1861	.....	"	48	"	"	28	"	....	76		
1860	.....	"	52	"	"	22	"	....	74		
1859	.....	"	52	"	"	15	"	....	67		
1858	.....	"	51	"	"	14	"	....	65		

The household coal trade has slightly improved since our last, stimulated partly, no doubt, by the healthier tone of the London market, and the approach of winter. In coking and manufacturing sorts there is no noticeable change, but hopes are entertained that they will get a trifle better as the year draws to a termination. The export coal trade for the last month from the north-eastern ports shows, on the whole, a slight falling off as compared with the corresponding month of last year, the total exports having been 397,521 tons, against 399,393 tons in August last year. At the principal port there is a considerable falling off—that is, at Newcastle, where the exports were 179,505 tons, against 197,612 tons. This falling off is only to be accounted for by the want of accommodation in the Tyne for the larger class of vessels. This deficiency is about to be removed; the depth on the bar has reached 13 feet at low water, and 28 feet at best tides, and is still being increased, so that all that is now required to accommodate the largest vessels is the construction of the dock at Low Lights. A plan has been devised by Mr. Jones, the engineer of the Blyth and Tyne Railway, by which this dock can be constructed at a comparatively small outlay in the first instance, to be enlarged as required at a future time. This plan appears to be a judicious one, and it meets with favour, so that there is little doubt the Tyne will shortly be capable of accommodating vessels of every class, and a great impulse will, by this

means, be given to the export steam coal trade, as the great steam coal district lies immediately contiguous to the Tyne and the site of the proposed docks.

The timber trade seems to be in a healthy condition, and chemicals are bringing a good price as stocks continue low, and exportation has been going on pretty briskly.

The shipping trade, both on the Tyne and the Wear, has been moderately active, though without excitement. Among the exports from the Tyne during the month have been: 204,711 tons of coal; 66,579 cwt. of iron; 9,723 tons of coke; and 31,551 cwt. of alkali. Among the imports: Cargoes of pyrites and manganese ore from Pomaron, Huelva, Laja, Dordt, Antwerp, Rotterdam, &c.; 188 tons of iron ore from Pomaron; cargoes of bars of lead from Carthage; cargoes of iron ore from Gothenburg; 2,372 bars of lead from Adra, and 4,190 bars from Carrucha.

The Lanchester Valley branch of the North-Eastern Railway connecting Durham with the Consett Ironworks and district was formally opened on the 1st of September. The line passes up the valley of the Brownie by Lanchester to the important works at Consett. The line will add considerably to the value of those works, and contribute much to their success, as it gives much increased facilities for the conveyance of finished iron from the works, and also opens up a new field for the supply of coal and coke for consumption at the works.

The Miners' Permanent Relief Fund for the counties of Northumberland and Durham continues to make progress. A successful meeting was held at Houghton-le-Spring, on the Wear, on Saturday, when the subject was discussed—about 1,000 persons attended. It appears that the society now numbers 7,000 members, and the numbers are rapidly increasing. The fund may be considered an established fact, all that is required to ensure its success being firmness and unanimity on the part of the men. The payments are comparatively very small per man weekly, and the advantages to be derived very great. The labours of the agent appointed, Mr. J. Howie, have been attended with much success, large numbers of the men at each colliery he has visited having joined the society, in some cases the whole of the men employed. The coalowners have not yet formally countenanced the movement, but there is little doubt that they will do so when the proper times arrives.

Trade Review for Northumberland and Durham, 3 Nov 1862, Mining & Smelting Mag., vol. 2, p.304

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The coal trade has improved a little of late, some collieries having been fully employed, but still many have been only partially so. At the last new winning at Seaton Delaval, the quantity worked has reached about 500 tons per day, and the workings are being extended on a very large scale. The other new winnings in the north have been making good progress, and promise to be most successful. A fortunate discovery has been made in the Broomhill Colliery, at the north-eastern edge of the coal-field, near Warkworth, the men having cut into a seam of coal 20 feet thick, of the best steam quality.

The iron trade has been very firm, and seems likely to continue so. Throughout the district of the Tyne and Wear and in Cleveland, the ironmasters have been doing well, and among others an immense blast-furnace has been blown in at the Consett iron works, which is expected to yield 400 tons of metal per week.

The chemical market has been healthy, and the timber trade moderately active, so that altogether the two northern counties have had no cause of complaint.

Among the exports from the Tyne during the month have been 183,691 tons of coal, 57,276 cwts. of iron, and 16,486 tons of coke. Among the imports, cargoes of pyrites from Pomaron and Huelva; 7,582 bars of iron from Gothenburg; a quantity of iron from Archangel, and 38,114 bars of lead and 162 bags of copper from Carthage.

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The coal and iron trades of this district continue in much the same condition as when we last referred to them. The coal trade is improving in the household districts; but the northern steam coalpits are not very well employed. The gas and coking coal collieries continue pretty much the same. The iron trade maintains its position, and seems likely to keep it, for the present at least. The furnaces on the Tyne, Weir, and Tees, and in Cleveland, are nearly all in blast, and on the former river the Messrs. Palmer, of Jarrow, are about to erect extensive rolling mills.

The following data on blast furnaces are collated from an article on the iron trade of the north in the *Darlington and Stockton Times* :—

Nov. 1, 1862	....	58 in blast ;	22 out of blast	....	Total....	80
"	1861	....	49 "	27 "	"	.... 76
"	1860	....	51 "	23 "	"	.... 74
"	1859	....	55 "	14 "	"	.... 69
"	1858	52 "	15 "	" 67
"	1857	55 "	7 "	" 62

Showing a total increase since 1857 of 18 furnaces.

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A valuable vein of lead has been struck on the eastern flank of Harwood valley, Durham, and about eleven miles from Alston. The sedimentary series of which this formation is composed has several productive beds which crop out along the hill from the coal sills above to the sea limestone below. It is in the rock last named that this discovery referred to has been made, and it is a singular fact that former miners have been working in a vein parallel to the one just found, at a distance of only three fathoms.

The exports for the Tyne during the month comprise :—96,935 tons of coal ; 49,067 cwts. of iron, and 8,623 tons of coke. Among the imports were, 3,253 bars of lead from Carthagena and Garrucha ; 16 tons of iron from Carthagena ; a quantity of iron from Gothenburgh ; 20 tons of zinc ore from Drammen ; 20 tons of copper ore from Carthagena, and cargoes of pyrites from Pomaron, Gefle, and Antwerp.

The prospectus of the Brandon Walls Lead Mining Company has been issued. The capital has been fixed at 18,000*l.*, in shares of 25*l.* each ; and the property to be worked comprise the Brandon Walls, the Thorney Brow, and the Stottsfield Burn setts, at Stanhope, in the county of Durham, and bounded on the north, east, and west by the property of Mr. Beaumont. The property has been favourably reported upon by Mr. J. Hitchins and by Mr. Septimus Beardmore, the lease being for eighteen years, at a royalty of 1-12th for lead, and 6*d.* per ton for ironstone. For the transfer of the lease, plant, and machinery the vendors are to receive 7,000*l.*, of which 3,000*l.* will be taken in fully paid up shares.

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The iron trade in this district has been very brisk, and in Cleveland especially, the furnaces are nearly all in blast and the miners in full work. It is stated that two firms propose to erect new furnaces in the neighbourhood of Hartlepool. In South Durham and Cleveland a greater number of works are in operation than was ever recorded before, and but for the anomalous position of the Consett Works, which out of a total of 18 furnaces returns 13 as out of blast, the proportion of "outs" to "ins" would be very small indeed as will be seen by the following figures: taken on the 1st of December.

Place and Owners.	In.	Out.	Total.
Eaton—Bolekow and Vaughan	9	—	9
„ Clay Lane Company	3	—	3
„ Samuelson and Company	3	—	3
Cargo Fleet—Jones, Dunning, and Co.	2	—	2
„ Cochrane and Company	4	—	4
„ Gilkes, Wilson, Pease, and Co.	4	1	5
Middlesbrough—Bolekow and Vaughan	2	1	3
„ Hopkins and Co.	2	—	2
Port Clarence—Bell Brothers	5	1	6
Norton—Warner, Lucas, and Barrett	3	—	3
Stockton—Holdsworth and Co.	2	1	3
Thornaby—W. Whitwell and Co.	2	1	3
Darlington—South Durham Company	2	1	3
Ferry Hill—J. Morrison	3	—	3
Witton Park—Bolekow and Vaughan	4	—	4
Stanhope—Weardale Iron Company	—	1	1
Towlaw—Weardale Iron Company	4	1	5
Consett—Derwent Iron Company	5	13	18
Total	59	21	80

The chemical market is rather slow and prices have undergone no alteration. Shipbuilding is carried on in the Tyne and Wear with great activity and most of the yards promise to be busy for some time to come. The coal trade, on the whole perhaps, has a more healthy appearance, but the production is still limited, and several pits are working short time. We think it scarcely likely that there will be any change of consequence until the turn of the year. In the iron trade all is bustle and activity. We believe there is not a single blast furnace "out" between the Tyne and the Wear.

Among the exports for the Tyne during the month have been: 99,792 tons of coal; 65,830 cwt. of iron; 8,295 tons of coke. Among the imports: cargoes of pyrites from Pomaron, Antwerp and Garrucha; pig-iron and pig lead from Gothenburg, and 147 tons of iron from Pomaron.

The South Medomsley colliery, which has been laid in for about a hundred years, has been re-opened by Messrs. Bainbridge, Muschamp and Kirsop, of Newcastle.

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The iron trade in this district maintains its buoyancy, and with few exceptions the blast-furnaces of Cleveland and South Durham are all in blast. During 1862 five new furnaces were erected in the Cleveland district, and six old ones re-lighted, the total number of furnaces being 71. The quantity of pig-iron produced from them amounted to 705,529 tons.

There is nothing to report upon in the coal trade since our last. Several collieries have been working short time, and only a small proportion of the whole have been in full work.

The chemical and shipbuilding trades have been firm. The exports from the Tyne during the month comprise:—75,299 tons of coal; 55,946 cwts. of iron; 9,605 tons of coke. Among the imports have been: cargoes of pyrites from Pomaron; bars of lead from Carthagena and Garrucha; cargoes of sulphur pyrites from Rotterdam; and 280 tons of iron ore, and 925 bars of lead from Palomeeres.

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At a recent meeting of the ironmasters of the important iron-producing district of Cleveland, the following results were arrived at from actual returns made by each firm to the meeting:—

Total number of furnaces erected	..	..	..	..	80
In blast, January 1, 1863	..	..	..	..	59
Out of blast, January 1, 1863	..	..	..	..	21
Production of pig-iron for the year 1862	..	..	..	..	630,000 Tons
Stock of pig-iron in the whole district on Dec. 31, 1862	..	..	..	..	25,964 "
And inclusive of iron in store.					

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—A gradual though slow improvement is taking place in the state of trade in this district, the iron trade especially is healthy. Iron shipbuilding is going on briskly upon the Tyne, and among the latest novelties in this line are two tank ships in the course of construction at the St. Peter's shipbuilding-yard, intended to be employed in conveying petroleum from America.

The mild weather has been very detrimental to the coal trade, and many collieries have only been making three or four days a-week.

It is stated that a number of blast-furnaces are about to be erected in the Cleveland district. The following is the state of the blast-furnaces of this district on February 4th of this year. This return shows the largest number of furnaces in blast ever recorded.

Place and Owners.	In.	Out.	Total.
Elston—Bolckow and Vaughan	9	—	9
„ Clay-lane Company	3	—	3
„ Samuelson and Co... .. .	3	—	3
Cargo Fleet—Jones, Dunning and Co.	2	—	2
„ Cochrane and Co.	4	—	4
„ Gilkes, Wilson, Pearse and Co.	4	1	5
Middlesbro'—Bolckow and Vaughan	2	1	3
„ Hopkins and Co.	2	—	2
Port Clarence—Bell Brothers	5	1	6
Norton—Warner, Lucas and Barret	3	—	3
Stockton—Holdsworth and Co.	3	—	3
Thornaby—W. Whitwell and Co.	2	1	3
Darlington—South Durham Company	2	1	3
Ferryhill—Morrison	3	—	3
Witton Park—Bolckow and Vaughan	4	—	4
Stanhope—Weardale Iron Company	—	1	1
Towlaw—Weardale Iron Company.. .. .	4	1	5
Consett—Derwent Iron Company	5	13	18
Total	60	20	80

The exports from the Tyne comprise: 63,642 tons of coal; 14,985 tons of coke; 31,054 cwts. of iron; cargoes of pyrites from Pomaron and Antwerp; 14,000 bars of lead and some iron-ore from Carthagena; bars of lead from Almeida; iron-ore from Lines; manganese from Garrucha; and a cargo of pit props and battens from Christiansand.

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The iron trade has been very active in this district with every prospect of a continued improvement. New Establishments in South Durham and Cleveland are about to be commenced, and the manufacturing and export houses are busy with the spring

orders, which have been more numerous than was expected. New rolling mills are about to be erected at Darlington.

The coal trade has been very dull, and a great many pits have been working short time.

The imports into the Tyne include: cargoes of pyrites from Huelva, Pomaron, Antwerp, Bergen and Seville; copper ore from Bergen; sulphur, pyrites and copper ore from Seville; 8,662 bars of lead from Carthagena; 730 tons of iron and a quantity of sulphur ore from Pomaron; manganese ore from Lago; and pit-props and bar iron from Gothenberg. Among the exports were: 97,769 tons of coal; 29,553-cwts. of iron; and 6,372 tons of coke.

An explosion of fire-damp occurred at Oxlodge Colliery, Northumberland, on Friday the 7th, by which 20 men were killed and 2 injured.

Trade Review for Northumberland and Durham, 3 May 1863, Mining & Smelting Mag., vol. 3, p.305

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—There is nothing new to notice in this district. The coal trade has been much depressed, and it is feared will continue so. The iron trade is in a healthy condition, though there is not much doing. The ship-building trade on the Tyne and the Wear has been most active.

The exports from the Tyne during the month include: 148,270 tons of coal; 10,047 tons of coke; and 36,230 cwts. of iron. Among the imports have been: cargoes of sulphur pyrites from Rotterdam, Dordt, Antwerp, Levanger, and Genoa; cargoes of iron pyrites from Pomaron, Seville, and Drontheim; cargoes of manganese ore from Antwerp, Rotterdam, and St. Lucar de Guadiana; 9,400 ingots of copper from Alten; 40 tons of lead from Seville; and 7,032 bars of lead, and 30 tons of copper ore from Carthage.

Trade Review for Northumberland and Durham, 3 Jun 1863, Mining & Smelting Mag., vol. 3, p.367-368

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The iron trade in this district has been hardly so brisk as was the case lately. Consignments of iron to France have been few since the commercial treaty began to operate, and in the Rhine trade there is nothing doing. For manufactured iron, in the home trade, there has also been less demand, but the trade in pig, plate and angle iron continues satisfactory. At the Birtley ironworks, near Gateshead, much activity has prevailed; they include furnaces and forges, and are connected with the old and prosperous colliery of Ouston. The state of the blast-furnaces in the South Durham and Cleveland districts on the 1st instant are shown in the following table:—

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Places and Owners.	In.	Out.	Total.
Eston—Bolckow and Vaughan	9	—	9
„ Clay Lane Company	3	—	3
„ Samuelson and Company	3	—	3
Cargo Fleet—Jones, Dunning, and Co.	2	—	2
„ Cochrane and Company	4	—	4
„ Gilkes, Wilson, Pease, and Co.	4	1	5
Middlesbrough—Bolckow and Vaughan	3	—	3
„ Hopkins and Co.	1	1	2
Port Clarence—Bell Brothers	5	1	6
Norton—Warner, Lucas, and Barrett	3	—	3
Stockton—Holdsworth and Company	3	—	3
Ferry Hill—J. Morrison	3	—	3
Thornaby—W. Whitwell and Company	3	—	3
Darlington—South Durham Company	2	1	3
Whitton Park—Bolckow and Vaughan	4	—	4
Stanhope—Weardale Iron Company	—	1	1
Towlaw—Weardale Iron Company	4	1	5
Consett—Derwent Iron Company	5	13	18
	61	19	80
All places, May 1st, 1858	43	29	63
„ „ 1859	56	11	67
„ „ 1860	53	16	69
„ „ 1861	56	20	76

The coal trade continues much the same; some of the collieries are more briskly employed but the demand for household has been very dull.

The Custom-house returns for the North-Eastern ports for the month of April give the value of exports, other than coal and coke, as under:—

The Tyne, 120,130*l.*; Sunderland 6,017*l.*; the Hartlepoons, 252,194*l.*; Middlesborough, 31,165*l.*; Stockton, 1,725*l.*; showing an increase of 33,881*l.* on the Tyne and 725*l.* at Stockton, and a decrease of 870*l.* at Sunderland, 339,280*l.* at the Hartlepoons, and 2,731*l.* at Middlesborough.

The shipbuilding on the Wear has been very active. The chemical trade has been steady.

The exports from the Tyne during the month include:—173,731 tons of coal; 8,940 tons of coke; and 78,803 cwts. of iron. The imports comprise:—cargoes of pyrites from Seville, Pomaron, Huelva, Antwerp, and Levanger; sulphur and manganese from Rotterdam, Dordt, and Laja; 1446 bars iron from Gothenberg; 3,180 bars lead from Carthagen; a cask of ore from Bergen; 100 kegs zinc nails from Antwerp; 8,000 pit props from Mandal; and silver sand from Antwerp.

Trade Review for Northumberland and Durham, 3 Jul 1863, Mining & Smelting Mag., vol. 4, p.47-48

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The iron trade is in rather a more favourable condition than was the case last month. It is said that the Consett ironworks are to be sold. At Jarrow three furnaces are now in blast, and it is expected that a fourth will soon be added.

The following shows the number of blast-furnaces in operation in the Cleveland and South Durham districts at the beginning of June:—

Places and Owners.	In.	Out.	Total.
Eston — Bolckow and Vaughan	9	—	9
„ Clay Lane Company	3	—	3
„ Samuelson and Company	3	—	3
Cargo Fleet—Jones, Dunning and Co.	2	—	2
„ Cochrane and Company	4	—	4
„ Gilkes, Wilson, Pease and Co.	4	1	5
Middlesborough—Bolckow and Vaughan	3	—	3
„ Hopkins and Co.	1	1	2
Port Clarence—Bell Brothers	5	1	6
Norton—Warner, Lucas and Barrett	3	—	3
Stockton—Holdsworth and Company	3	—	3
Ferry Hill—J. Morrison	3	—	3
Thornaby—W. Whitwell and Company	3	—	3
Darlington—South Durham Company	3	—	3
Whitton Park—Bolckow and Vaughan	4	—	4
Stanhope—Weardale Iron Company	—	1	1
Towlaw—Weardale Iron Company	4	1	5
Consett—Derwent Iron Company	5	13	18
	62	18	80

A larger number than has ever been recorded as in existence in these districts, and at the same time the percentage of furnaces out of blast is much smaller.

The coal trade continues extremely dull. On the Tyne the steam collieries are working about seven or eight days a fortnight, and much the same state of things prevails on the Wear. A very interesting report has been made to the River Tyne Improvement Commissioners by Mr. T. E. Foster and Mr. John Taylor, two of the leading coal owners and coal viewers in Northumberland, relative to the existing state and prospects of the Northumberland Steam Coal field and the quantities that may be expected to be shipped therefrom upon the Tyne. These gentlemen report that they have measured the respective royalties in which is being wrought at the present time the Low Main, or best steam coal of the district; and after making full allowance for the quantity already excavated, loss by dykes, small coals left under ground, and screened out on the surface, they

find that there is sufficient to endure, in the present rate of shipment of steam coal on the Tyne, in addition to the portion diverted to Sunderland Dock, for a period of one hundred and ten years. But the present collieries could produce from 20 to 25 per cent. more than they do at present, were the demand to arise. On this head there would be an increase of, say 300,000 tons; a new colliery is being opened out at Camboise, from which may be computed an annual vend of 160,000 tons, and from Sleekburn 80,000 tons; and other districts adjoining, 160,000 tons—total 700,000 tons. The increase from the steam coal trade from the Tyne has been as follows:—1859, 1,275,707 tons; 1860, 1,647,091 tons; 1861, 1,544,067 tons; 1862, 1,955,586 tons. Besides the Low Main seam, there is another coal, called the Yard seam, which is capable of being worked in very large pieces, and combines in a great degree many of the excellencies peculiar to the Low Main seam. This seam is almost entire throughout the district, and there is sufficient left to endure, on the existing vend, for a period of sixty years. In addition to the Low Main and the Yard coal seams the following are met with, more or less, in the district on the north and south sides of the Tyne:—The Stone coal seam, Bersham seam, six-quarter seam, five-quarter seam, the Townley seam, and Walbottle seam; and to the north, some distance from the large downcast dyke of 90 fathoms, the High Main seam, stone coal seam, Bersham seam, gray seam, Plessy coal seam, and Beaumont seams. These seams are not now in operation, because, at the respective collieries, the Low Main and Yard seams are worked, as being more productive of profit. But there can be no doubt, as these are all workable seams, the time will arrive, as demand arises and coal becomes further enhanced in value, that they will come into operation. As regards the inferior description of coal, the time (one hundred and ten years) is so distant when the steam coal of the first quality will be exhausted, and as in addition the yard seam will endure sixty years, together one hundred and seventy years, Messrs. Foster and Taylor did not think it necessary to go into the question of quantity of inferior coal in reserve, excepting, generally, to remark that the various inferior seams of coal will naturally come into operation as those of superior quality are exhausted; at the northern part of Durham, adjoining the Tyne, throughout which those seams have been fully proved and explored, is very extensive, they do not anticipate that there will be any scarcity of coal in the Newcastle district for a very long time after the exhaustion of the steam coal seam.

Three men and a boy have been killed by foul air in an iron pit, at Cleator, Cumberland. It was the poor boy's first essay as a miner, and it is conjectured that the first man went into the drift for the purpose of getting a saw, and that, not returning, another man went in search of him, and afterwards a third, and, last of all, the boy. The deceased were found about 12 or 14 yards from the place where they were working. It further transpires that the first man went in without his lamp, as it was found hanging by the side of the pit.

The exports from the Tyne during the month include:—156,747 tons of coal; 11,173 tons of coke; and 75,841 cwts. of iron. Among the imports were: cargoes of pyrites from Levanger, Drontheim, Huelva, Antwerp, Pomaron, and Dordt; cargoes of manganese from Huelva, St. Lucar, Lalaja, and Rotterdam; 3,370 tons bar-iron from Gothenburg; 25,677 bars of lead from Carthage; 3,956 tons of bar-iron from Norkoping; 200 tons of ironstone from Cherbourg; 2,744 bars of lead from Almeira; 170 tons of pig-iron from Corunna; seven cargoes of sulphur ore from Pomaron.

Various Reports of the iron trade are a little more favourable than

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The reports of the iron trade are very satisfactory, and the demand seems to be fully equal to the supply. The various new works have been pushed forward with vigour, and considerable additions have been made during the present month. Messrs. Bell Brothers are erecting two new furnaces at their Clarence Works, where they have six already in operation, and the South Bank Company are about to add three more to their present stock.

It is reported that large and extensive rolling mills are about to be erected in the neighbourhood north of Monkwearmouth. It is also stated that a number of gentlemen in Sunderland propose to purchase the Bishopwearmouth Iron Works, and to re-open them.

It is stated that a valuable deposit of hematite iron ore has been discovered by Messrs. Kennedy Brothers, of Ulverstone, on the Greenscow estate near Dalton. The quality of this iron is said to be equal to that of the best ore of Furness.

The following figures show the state of the blast furnaces in the Cleveland district on the 1st July:—

Places and Owners.	In.	Out.	Total.
Eston—Bolckow and Vaughan	9	—	9
„ Clay Lane Company	3	—	3
„ South Bank Company	3	—	3
Cargo Fleet—Jones, Dunning and Co.	2	—	2
„ Cochrane and Company	4	—	4
„ Gilkes, Wilson, Pease and Co.	4	1	5
Middlesborough—Bolckow and Vaughan	3	—	3
„ Hopkins and Co.	2	—	2
Port Clarence—Bell Brothers	5	1	6
Norton—Warner, Lucas and Barrett	3	—	3
Stockton—Holdsworth and Co.	3	—	3
Ferry Hill—J. Morrison	3	—	3
Thornaby—W. Whitwell and Co.	3	—	3
Darlington—South Durham Company	3	—	3
Whitton Park—Bolckow and Vaughan	4	—	4
Stanhope—Weardale Iron Company	—	1	1
Towlaw—Weardale Iron Company	4	1	5
Consett—Derwent Iron Company	5	13	18
Total	63	17	80
All places, July 1st, 1858	49	14	63
„ „ 1859	54	13	67
„ „ 1860	52	22	74
„ „ 1861	49	27	76
„ „ 1862	54	25	79

The coal trade still continues dull, although there is a slight improvement on last month's reports. A scarcity of tonnage for the Thames has been felt, in consequence of some of the colliers usually employed in the London trade having gone into the Baltic trade.

A movement has been inaugurated among the principal merchants and others engaged in the trade, for the purpose of abolishing the "keel" measure on the Tyne, and substituting that of "ton." This is a change which has long been a necessity. The "keel" is, in many respects, an arbitrary measure, for, although expected to contain 8 chaldrons, of 53 cwts. each, these chaldron waggons have, in reality, often been made to carry 60 cwts., so that much underselling and general confusion is caused by this method of computation. The substitution of the standard "ton" will, therefore, be a great improvement. The parties interested have signed a document, setting forth the advantages to be derived from the proposed change, and this document has been signed by the largest mercantile and shipping firms in Newcastle, as well as by several of the colliery owners.

The exports from the Tyne during the month include:—218,140 tons of coal; 11,131 tons of coke; and 70,775 cwts. of iron. Among the imports have been:—cargoes of pyrites from Dordt, Levanger, Antwerp, Seville, Pomaron, Rotterdam, Cadiz, Drontheim, and Huelva; 1,315 bars of iron from Gothenburg, and 3,592 from Sefle; cargoes of manganese from Huelva, Dordt, Lalaja, and Pomaron; 11,638 bars of lead from Carthage, and 1,219 bars from Almeira; 14 tons of yellow metal from Stavanger; copper ore from Lalaja, Levanger, and Carthage; and two cargoes of iron ore from Cherbourg.

Trade Review for Northumberland and Durham, 3 Sep 1863, Mining & Smelting Mag., vol. 4, p.176-177

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The iron trade keeps pretty active, a good business has been done, and the number of mills and furnaces in Cleveland is reported to be steadily increasing. The coal trade is also improved, and the pits have been working longer time. The gas and coaking coal collieries have been doing much better, many of them having been fully employed.

A bed of rock salt has been discovered near Middlesboro', about 200 fms.

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from surface. It seems to be a valuable deposit, but would require a considerable outlay of capital to make it available.

The exports from the Tyne during the month include:—161,912 tons of coal; 8,409 tons of coke; and 52,960 cwts. of iron. The imports were cargoes of pyrites from Levanger, Antwerp, Rotterdam, Gefle, Salajo, Dordt, and Seville; cargoes of copper ore from Levanger, Stavanger, Seville and Carthage; bar iron from Gothenberg and Stockholm; 1,020 bars of lead from Almeira, 13,366 from Carthage, 1,029 from Alicante, 1,562 from Escombrera, 2,309 from Pomaron and 3,881 from Garrucha; cargoes of manganese ore from Pomaron, Villa-Real, Huelva and Salajo; cargoes of sulphur ore from Pomaron, Cadiz, Sefle and Drontheim.

Trade Review for Northumberland and Durham, 3 Oct 1863, Mining & Smelting Mag., vol. 4, p.238-239

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The coal trade, which at the beginning of the month was rather dull, has since improved, and nearly all the Northumberland steam coal companies have lately been working full time. The iron trade has had an upward tendency, particularly that of Cleveland, and prices have advanced; for the Cleveland pig-iron, although some years ago considered unfit for smelting, is now largely consumed for purposes where great strength is required.

Messrs. Kennedy Brothers are reported to have lately discovered another valuable vein of hematite iron ore on the Greenscow estate.

On Tuesday, Sept. 1st, an accident occurred at Burroden Colliery, but no lives were lost, and it was expected the machinery would not take long to put in working order. An accident also took place at Auckland Park Colliery, on Sept. 12th, by which four lives were lost.

On Sept. 1st, the district of South Durham and Cleveland contained sixty-three furnaces in blast, and only seventeen out of blast, of which latter thirteen belonged to the Consett establishment. Compared with the corresponding period of last year, this is an increase of fifteen furnaces in blast, and an addition of four to the total number. The details are as follows:—

Place and Owners.	In.	Out.	Total.
Eston—Bolckow and Vaughan	9	—	9
„ Clay Lane Company	3	—	3
„ South Bank Company	3	—	3
Cargo Fleet—Jones, Dunning and Co.	2	—	2
„ Cochrane and Company	4	—	4
„ Gilkes, Wilson, Pease and Co.	4	1	5
Middlesborough—Bolckow and Vaughan	3	—	3
„ Hopkins and Co.	2	0	2
Port Clarence—Bell Brothers	5	1	6
Norton—Warner, Lucas and Barrett	3	—	3
Ferry Hill—J. Morrison	3	—	3
Stockton—Holdsworth and Co.	3	—	3
Thornaby—W. Whitwell and Co.	3	—	3
Darlington—South Durham Company	3	—	3
Whitton Park—Bolckow and Vaughan	4	—	4
Stanhope—Weardale Iron Company	—	1	1
Towlaw—Weardale Iron Company	4	1	5
Consett—Derwent Iron Company	5	13	18
Total	63	17	80
All places, Sept. 1st, 1858	51	14	65
„ „ 1859	52	15	67
„ „ 1860	52	22	74
„ „ 1861	48	28	76

Among the imports into the Tyne during the month were:—cargoes of pyrites from Huelva, Sevanger, Cadiz, Antwerp, Drontheim, Pomaron, and Dordt; a cargo of manganese from Huelva; 840 pigs of lead from Seville; 4,150 bars of lead from Carthagena; and 1,408 bars of iron from Gothenburg.

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—The coal trade continues to improve, but has been somewhat checked by the scarcity of ships and the consequent highness of freights. The pits are once more working full time, and the large quantities of coal accumulated for some time past are now being reduced. Disturbances have lately taken place at various collieries in South and West Durham; and at those of Messrs. Joicey, there has been a strike for an advance of wages.

A seventh share in the Seaton Delavel Colliery was offered for sale on Sept. 29th, but was not purchased. The operations of the Wellington Colliery at Newhaven have been entirely stopped on account of the fire which broke out in it, and which has not yet been put out.

The iron trade has been very brisk all through the month, especially in Cleveland, where it is said the makers have orders in hand amounting to upwards of 200,000 tons, which will take the entire produce of that district for the next three months. Large quantities of hematite ore have also to be worked in Cumberland on account of the increased demand for it.

It is reported that new works for making steel are to be built at Tow Law, by Mr. Charles Atwood, also forty new puddling furnaces at Jarrow, by Messrs. Palmer Brothers and Co. Messrs. Head and Co., of London, have purchased land at Newport for the purpose of erecting some rolling mills.

We gave last month an account of the number of furnaces in and out of blast in Cleveland and South Durham, showing that altogether there were eighty furnaces in existence in that district, of which sixty-three were in blast. To these may be added the following statistics of other furnaces in the county of Durham, namely:—

Place and Owners.	In.	Out.	Total.
Seaham—Marchioness of Londonderry	2	—	2
Hinderwell—Albert Works	1	—	1
Ferryhill—James Morrison	3	—	3
Washington—Bells, Hawks, and Co.	1	—	1
Jarrow—Palmer Brothers	3	1	4
Birtley—Birtley Iron Company	2	1	3
Telling—H. L. Pattinson and Co.	—	2	2
Total	12	4	16

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making a total of seventy-five furnaces in blast, and twenty-one out of blast, in the northern district south of the Tyne.

The exports from the Tyne include:—211,125 tons of coal; 12,919 tons of coke; and 95,027 cwts. of iron. The imports during the month have been:—19,662 bars of lead from Carthagena, 1,350 from Seville, 2,700 from Alicante, 2,705 from Garrucha, and 9,050 from Rotterdam; cargoes of manganese from Huelva and Rotterdam; cargoes of sulphur ore from Pomaron, Cadiz, and Gefle; cargoes of pyrites from Dordt and Antwerp; and bar-iron from Rotterdam and Gothenberg.

YORKSHIRE AND LANCASTER.—The coal trade continues very active

NORTHERN COUNTIES.

NORTHUMBERLAND AND DURHAM.—There has been a healthy tone in the general trade of the Tyne during the month.

The coal trade was rather quiet at the commencement of the month but it has since become more brisk ; in consequence of the mildness of the weather the ports of North Europe are open, and the steam-coal trade is therefore more active than might have been anticipated. The recent gales have caused the loss of several collier vessels. Great excitement has been caused by the strike at the Auckland collieries, the property of Messrs. Straker and Love. The principal complaint made by the colliers was that they were paid according to the measure of the coal sent up, not by the

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weight. Their wish was to be paid by weight, to which the masters were willing to accede, offering them 9½d. per ton for working. The men demurred at this reduction, and sent in their own prices, varying at the several collieries on strike, but in none less than 1s. per ton. Two or three disturbances have taken place, but the general body of miners appeared to disapprove of such proceedings. Mr. Love has already made several concessions, and it is hoped that the strike will soon terminate. The men seem to be getting tired of the dispute, and are wavering between allegiance to the Union and acceptance of Mr. Love's proposals.

The iron trade is extending with great rapidity, fifteen new furnaces are about to be commenced in the Cleveland district, and if the trade continues to increase for the next ten years at the same rate as it has been doing for the last few years, Teesside will in every probability become the largest iron-making district in the kingdom.

The exports from the Tyne include :—123,059 tons of coal ; 9,577 tons of coke ; and 54,289 tons of iron. Among the imports during the month have been :—Cargoes of pyrites from Dordt, Sevanger, Antwerp, Drontheim, Lalasa, Cadiz, and Pomaron ; three cargoes of manganese from Huelva ; 11,709 bars of lead from Carthagen, and 2,838 from Garrucha ; 5,668 bars of iron from Gothenburg, and 50 tons from Gefle ; 195 tons of ore from Pomaron ; sulphur ore from Dantzic, 228 tons of iron ore from Garrucha ; and lead ore from Cagliari.

YORKSHIRE.—The demand both for coal and coke has been very good

**NORTHERN COUNTIES. NORTH LANCASHIRE AND
YORKSHIRE.**

NORTHUMBERLAND AND DURHAM.—The coal trade has been steadily improving, though it is not yet in as flourishing a state as could be wished, and there has been a brisk demand for coke. The pits have been working full time, and there is a good supply of coal for shipment. The returns of the foreign coal trade for November show a larger increase than usual. The returns of coal and coke exported from the Tyne and Wear have greatly decreased during the present year, owing to the large shipments that have been, and continue to be made from Cardiff. The Tyne is also doing a much smaller trade with Germany, the markets there being now largely supplied with coal from the interior. The question of the strike at the Auckland collieries is not yet settled. Messrs. Straker and Love have issued a notice stating that they will employ none belonging to the union and although a deputation waited upon them to effect a compromise if possible, they are fully determined to adhere to this resolution. The men on strike, with a few exceptions, are very orderly.

The engagements of the house of Mr. W. M. de Mattos, of Leadenhall-street, were dishonoured on the afternoon of December 8th. Its business was chiefly connected with the shipment of coal, and the coal owners in this district especially are very heavy losers.

The iron trade has been making a very satisfactory progress; manufactured iron, particularly plates, has been in good demand, and prices have had an upward tendency since the beginning of the month. It is hoped that the Consett district is again going to look up, as it seems that the business of the Derwent Iron Company has largely increased of late, and considerable additions are being made to the works. Two of the

Crook Hall furnaces have been blown in, and the machinery connected with them is undergoing repair and replacement, while two of the Bradley furnaces are to be started shortly, it is said, by Messrs. Palmer Brothers and Co., of Jarrow, at Middlesborough. Messrs. Hopkins and Co. are proceeding rapidly with their four new furnaces. The blast-furnaces at Felling are to be reopened, a quantity of ore having been stored there, and it is stated that Sir William Armstrong intends building two furnaces at Elswick, for the purpose of smelting the Redesdale and other ores, from which a superior kind of iron is expected to be made.

The exports from the Tyne include:—156,416 tons of coal; 10,434 tons of coke; and 61,643 cwts. of iron. The imports during the month comprise:—12,692 bars of lead from Carthagena, and 2,680 from Alicante; sulphur pyrites from Rotterdam and Dordt; sulphur ore from Pomaron; a cargo of manganese from Huelva; a cargo of lead ore from Cagliari; 160 tons of iron ore from Garrucha; and cargoes of iron and lead from Gothenburg.

**NORTHERN COUNTIES. NORTH LANCASHIRE AND
NORTH YORKSHIRE.**

NORTHUMBERLAND AND DURHAM.—The coal trade still continues to improve, having exhibited considerable briskness during the last few weeks,

and hopeful prospects are held out for the future. The summing up of the past year's transactions shows a great falling off as compared with former years, indeed since 1861, little progress appears to have been made in the coal trade. Prices are gradually rising, and coke, for which there are large demands, is also dearer. The strike at the Albert Hill Iron Works, Darlington, belonging to Messrs. Barningham, is at an end, and the same may be considered to be the case at Messrs. Straker and Love's collieries. Mr. Love adhered steadily to his resolution of employing none belonging to the Union, and the men belonging to the Brandon Pit in the Auckland district have apparently left the pitmen's union, 60 of them having signed the bond and gone to work, so that colliery and the coke ovens will be immediately at full work. At Willington Colliery the miners are returning to their employment in the same manner. There are still upwards of 600 union pitmen in the neighbourhood of Willington and Brandon, and they will have to seek employment elsewhere.

The iron trade is progressing very rapidly, particularly in Cleveland and South Durham, in which during the last year such an immense demand sprang up for pig-iron, greatly advancing its value. The following figures show the growth of the iron trade in that district since 1858:—

Place and Owners.	January 1st, 1864.		
	In.	Out.	Total.
Eston—Bolckow and Vaughan	9	—	9
” Clay Lane Company	3	—	3
” South Bank Company	3	—	3
Cargo Fleet—Jones, Dunning and Co.	2	—	2
” Cochrane and Co.	4	—	4
” Gilkes, Wilson, Pease and Co.	5	—	5
Middlesborough—Bolckow and Vaughan	4	—	4
” Hopkins and Co.	2	—	2
Port Clarence—Bell Brothers	5	1	6
Norton—Warner, Lucas and Barrett	2	2	4
Stockton—Holdsworth and Co.	3	—	3
Ferry Hill—J. Morrison	3	—	3
Thornaby—W. Whitwell and Co.	3	—	3
Darlington—South Durham Company	3	—	3
Witton Park—Bolckow and Vaughan	4	—	4
Stanhope—Weardale Iron Company	—	1	1
Towlaw—Weardale Iron Company	4	1	5
Consett—Derwent Iron Company	5	13	18
Total	64	18	82
All places, Dec. 1st, 1863	64	18	82
” Jan. 1st, ”	59	21	80
” ” 1862	50	26	76
” ” 1861	53	23	76
” ” 1860	51	18	69
” ” 1859	58	9	67
” ” 1858	43	19	62

The total number of blast furnaces on the Tyne, Wear, and Tees is one hundred and five. Only twenty-two are out of blast, and seventeen of these are at Consett. The furnaces in blast yield an average of 17,000 tons per week, and when the twenty-nine new furnaces now in course of

construction are in operation, supposing the trade to be sufficiently brisk to keep them employed, the production on these three rivers will be 20,000 tons a-week, or above one million tons per annum.

A conference of puddlers represented by delegates from the principal iron districts of the kingdom was opened at Gateshead on December 28th. Some of the delegates were of opinion that any tendency towards a general strike should be suppressed, as that of Crewe had not turned out as they expected.

The exports from the Tyne include:—83,929 tons of coal; 12,830 tons of coke; and 24,105 cwts. of iron. The imports comprise:—cargoes of sulphur ore from Pomaron and Antwerp; cargoes of pyrites from Antwerp, Dordt, and Seville; 7,144 tons of iron from Norkoping; 103 bars of iron from Laurvig, and 3,214 from Gothenburg; iron ore from Garrucha; 18,725 bars of lead from Carthagena; lead from Seville; and manganese from Dordt.

Trade Review for Northumberland and Durham, 3 Mar 1864, Mining & Smelting Mag., vol. 5, p.171-172

NORTHERN COUNTIES. NORTH LANCASHIRE AND NORTH YORKSHIRE.

NORTHUMBERLAND AND DURHAM.—The coal trade has shown considerable activity during the past month. The late frosts have kept the collieries working house-coal actively employed, and a brisk business has been done at the steam-coal collieries. The Northumberland and Durham Coal Trade Committee have published their annual report, in which the following results are given for the year 1863, showing a considerable decrease when compared with those of 1862:—

			London,			Coastwise.
1863	..	..	tons 3,153,180	..	..	tons 2,921,312
1862	..	..	„ 3,224,280	..	..	„ 2,866,329
	Decrease	..	„ 71,100	Increase	..	„ 54,983
			Foreign.			Total.
1863	..	..	tons 3,797,397	..	..	tons 9,871,889
1862	..	..	„ 4,044,181	..	..	„ 10,134,790
	Decrease	..	„ 246,784	Total decrease	..	„ 262,901

It is reported that the *Stella* Coal Company have commenced working a new pit in their royalty at Ryton and Stella, and that another has been partly sunk in Horsley Wood. It is also stated that the deep pit at Monkwearmouth has again been put into working order.

An accident occurred at *Eshott* colliery, near Felton, on February 12th, by the rope breaking whilst the cage was being drawn up. One man was so severely injured that he died in a few hours.

The tone of the iron trade continues to be very satisfactory, and the demand for shipbuilding has been daily increasing. It is stated that at *Grosmont*, in the Cleveland district, Messrs. Bagnall have completed two new furnaces, which have already produced satisfactory results: it is

estimated that the two furnaces will produce 500 tons of pig-iron per week. It has also been stated that Messrs. H. K. Spark and Co., of Darlington, have taken the ironstone royalties at *Fyryup* on a lease, for the purpose of erecting three large furnaces upon them.

The exports from the Tyne include:—111,408 tons of coal; 12,966 tons of coke; and 27,808 cwts. of iron. Among the imports were:—a cargo of pyrites from Cadiz; 250 bags of iron from Lisbon; 3,700 bars of lead from Almeira; 160 tons of iron ore from Carboneras; and 165 tons of sulphur ore from Pomaron.

**NORTHERN COUNTIES. NORTH LANCASHIRE AND
NORTH YORKSHIRE.**

NORTHUMBERLAND AND DURHAM.—A fair amount of business has been done in the coal trade, and the steam-coal collieries have been well employed, considering the season of the year. There is likely to be some agitation in this district on account of the demands of the colliers for higher wages, which many of the proprietors do not feel justified in giving.

The iron trade has been in a very satisfactory condition, although towards the end of the month prices had rather a downward tendency.

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The *Consett* Ironworks, in the county of Durham, it is stated, have been disposed of to a public company, composed chiefly of the creditors of the late District Bank. The price obtained for the entire establishment is 295,000*l.* This sum includes the works both at Consett and at Bishopwearmouth. It is a matter of great satisfaction to the trade of the north that this very satisfactory arrangement has been arrived at. The works are very extensive, and recently have had a high reputation for making iron plates and angles.

The state of the blast-furnaces of the Cleveland district on March 1, 1864, was as follows:—

Places and Owners.	In.	Out.	Total.
Eston—Bolckow and Vaughan	9	—	9
" Clay Lane Company	3	—	3
" South Bank Company	3	—	3
Cargo Fleet—Jones, Dunning and Co.	2	—	2
" Cochrane and Co.	4	—	4
" Gilkes, Wilson, Pease and Co.	5	—	5
Middlesborough—Bolckow and Vaughan	4	—	4
" Hopkins and Co.	2	—	2
Port Clarence—Bell Brothers	5	1	6
Norton—Warner, Lucas and Barrett	3	—	3
Stockton—Holdsworth and Co.	3	—	3
Ferry Hill—J. Morrison	3	—	3
Thornaby—W. Whitwell and Co.	3	—	3
Darlington—South Durham Company	3	—	3
Witton Park—Bolckow and Vaughan	4	—	4
Stanhope—Weardale Iron Company	—	1	1
Towlaw—Weardale Iron Company	5	—	5
Consett—Derwent Iron Company	7	11	18
Total	68	13	81
All places, Mar. 1st, 1858	44	19	63
" " 1859	59	8	67
" " 1860	53	16	69
" " 1861	51	25	76
" " 1862	51	25	76

A new company has been formed called the *Cleveland Iron Company*, with a capital of 100,000*l.*, in shares of 5*l.* each, for obtaining and working the iron ore on the Skelderskew and Fowle Green estates, in the Cleveland district. The property comprises about 220 acres, held for 99 years, at 300*l.* per annum rent, merging into a royalty of 4½*d.* per ton of 22½ cwts., and is said to possess unusual facilities for railway and water carriage.

The exports from the Tyne include:—131,924 tons of coal; 12,945 tons of coke; and 37,078 cwts. of iron. The imports comprise:—23,165 bars, and 1,711 pigs of lead from Carthagena; 6,351 bars of lead from Alicante, and 2,460 from Almeira; 2,650 pigs of lead from Seville; cargoes of pyrites from Drontheim, Seville, Cadiz, Cherbourg, Pomaron, Antwerp, and Levanger; 14 tons of copper ore from Carthagena; 100 tons of iron ore from Garrucha; cargoes of iron from Gothenburg and Aguilas; and 115 ingots of lead from Gothenburg.

**NORTHERN COUNTIES. NORTH LANCASHIRE AND
NORTH YORKSHIRE.**

NORTHUMBERLAND AND DURHAM.—The coal trade has been in much the same position for the past month as mentioned in our last, though there has not been on the whole such an active demand at the steam-colleries. Coke continues in increasing request and maintains its price, manufacturers having been pressed with orders. There is a good opening for trade with Cronstadt, but other foreign markets have been quiet. There have been great disturbances, as was feared, amongst the colliers at *Monkwearmouth* and at *Willington*, where they became quite riotous. There is also no improvement in the state of affairs at *Seghill*, the men still holding out against the reductions proposed by the owners. About one hundred and twenty of the men have left and gone to work at collieries at a distance, and those who remain are allowed 6s. a week by the union, and receive a good deal of help from their neighbours. At *Ryhope* colliery the yearly bond has not been insisted upon by the masters; the men will for the future work under monthly agreements.

It is stated that *Broad Oak* colliery, Loughor, is once more to be set in motion, under the direction of Mr. David Llewellyn, mining engineer, who is actively engaged in preparing for the erection of a powerful engine. It is also reported that the ground has been broken for a new colliery on the edge of *Birtley* common, between Newcastle and Durham.

On March 31st, an accident occurred at *West Moor* colliery, near Newcastle, by the connecting rod between the engine and fly-wheel breaking. Great damage was done to the machinery, but no lives were lost. There was also an accident on April 8th at the *Peggy* pit, Newbottle, near Durham, caused by an escape of gas from some old workings, which coming in contact with a light exploded and set fire to the coal.

Place and Owners.	In.	Out.	Total.
Eston—Bolckow and Vaughan	9	—	9
„ Clay Lane Company	3	—	3
„ South Bank Company	3	—	3
Cargo Fleet—Jones, Dunning and Co.	2	—	2
„ Cochrane and Co.	4	—	4
„ Gilkes, Wilson, Pease and Co.	5	—	5
Middlesborough—Bolckow and Vaughan	4	—	4
„ Hopkins and Co.	2	—	2
Port Clarence—Bell Brothers	5	1	6
Norton—Warner, Lucas and Barrett	3	—	3
Stockton—Holdsworth and Co.	3	—	3
Ferry Hill—J. Morrison	3	—	3
Thornaby—W. Whitwell and Co.	3	—	3
Darlington—South Durham Company	3	—	3
Witton Park—Bolckow and Vaughan	4	—	4
Stanhope—Weardale Iron Company	1	—	1
Towlaw—Weardale Iron Company	5	—	5
Consett—Derwent Iron Company	7	11	18
Total	69	12	81

The iron trade has been rather quiet, the unsettled state of affairs on the continent having limited the demand, and there has been some fear of prices falling so that buyers have been unwilling to give large orders. Still there is no falling off in the work, and all the men continue fully employed. The iron-masters in the North of England have intimated their determination to resist to the utmost a demand recently made upon them by the puddlers for an increase in the rate of payment the latter

have been receiving. The masters will assume that attitude because of late years there have been frequent advances in the puddlers' wages, and to increase them still further would render successful competition with foreign iron manufacturers impossible owing to the great cheapness of labour on the continent as compared with England. If the puddlers do not withdraw their demand all the ironworks are to be closed. The Cleveland iron trade is still steadily extending, and the table shows the state of the blast-furnaces up to April 15th.

The *Wreckhills* ironworks, recently offered at public auction by Mr. Thwaites, at Middlesborough, after slight competition, were purchased by Mr. G. Demaine, for the sum of 2700*l.* The *South Belmont* ironstone mines, near Guisbro', have been closed. The number of men employed, however, did not exceed fifty, all of whom found no difficulty in getting work in the district. Messrs. Fox, Head, and Co., are progressing rapidly with their works, and Messrs. Hopkins and Co. are erecting a new puddling mill, preparatory to an addition of about forty puddling furnaces to their present number. Messrs. Pease, Hutchinson, and Ledward have commenced rolling, and Messrs. Stevenson, Wilson, Jacques, and Co., and Messrs. Cooke, Bray, and Co., are preparing to proceed with their blast-furnaces immediately.

A prospectus has been issued of the *Consett* ironworks, with a capital of 400,000*l.* in shares of 10*l.*, to take at a valuation, under the sanction of the Court of Chancery, extensive iron and coal works in the county of Durham, which were among the assets of the Northumberland and Durham District Bank at the time of its suspension in 1857, and which have since been carried on on behalf of the shareholders of that establishment. The amount to be paid is 295,318*l.*, and the average profits of the last six years have been equal to 12^o/_o, although the iron trade during that period has been depressed. The *Bishopwearmouth* ironworks are also to be conducted by a limited company, with a nominal capital of 100,000*l.*, in shares of 20*l.* each.

The exports from the Tyne include :—204,545 tons of coal ; 15,425 tons of coke ; and 53,332 cwts. of iron. The imports include :—three cargoes of sulphur pyrites from Dort, one from Cadiz, and one from Levanger ; cargoes of pyrites from Antwerp, Seville, Rotterdam, Levanger, and Bilbao ; 1,703 bars and 971 pigs of lead from Almeira ; 5,479 bars from Aguilas, 5,422 from Carthage, and 2,257 from Alicante ; ironstone from Cherbourg ; iron ore from Garrucha ; sulphur ore from Pomaron ; and copper from Stavanger.

**NORTHERN COUNTIES, NORTH LANCASHIRE, AND NORTH
YORKSHIRE.**

NORTHUMBERLAND AND DURHAM.—The iron trade of this district has been somewhat stationary, and stocks have a tendency to accumulate, as there is no pressure of orders. Prices are about the same. The present partial dulness in the iron trade, however, in no way retards the extension of iron manufactories in the Cleveland iron district. With respect to this the *Darlington and Stockton Times* remarks that the make may now be roughly estimated at 1,000,000 tons per annum, as in addition to the seventy furnaces named below there are the furnaces at Washington, Birtley, Seaham, Felling, Jarrow, Walker, and Wylam, say eighty-five altogether in blast, and producing on an average 230 tons per week each at least. If only twenty of the furnaces now building are in blast by the end of next year, they will increase the make by fully 300,000 tons per annum, and before the expiration of the year 1866, it is probable that the whole make will not be less than one million and a half tons per annum. It is known that land is purchased, and capitalists are preparing to go on with the erection of blast furnaces at Darlington, Fighting Cocks, Middlesbro', Normanby, and other places; and there seems now no lack of confidence whatever in the profitability of making iron to any extent from the

Place and Owners.	In.	Out.	Total.
Eston—Bolckow and Vaughan	9	—	9
" Clay Lane Company	3	—	3
" South Bank Company	3	—	3
Cargo Fleet—Jones, Dunning and Co.	2	—	2
" Cochrane and Co.	4	—	4
" Gilkes, Wilson, Pease and Co.	5	—	5
Middlesborough—Bolckow and Vaughan	4	—	4
" Hopkins and Co.	2	—	2
Port Clarence—Bell Brothers	6	—	6
Norton—Warner, Lucas and Barrett	3	—	3
Stockton—Holdsworth and Co.	3	—	3
Ferry Hill—J. Morrison	3	—	3
Thornaby—W. Whitwell and Co.	3	—	3
Darlington—South Durham Company	3	—	3
Witton Park—Bolckow and Vaughan	4	—	4
Stanhope—Weardale Iron Company	1	—	1
Towlaw—Weardale Iron Company	5	—	5
Consett—Derwent Iron Company	7	11	18
Total	70	11	81
All places, May 1st, 1863	61	19	80
" " 1862	54	25	79
" " 1861	50	26	76
" " 1860	53	16	69
" " 1859	56	11	67
" " 1858	43	20	63

Cleveland stone. The manufacture of plates, bars, and other iron is making great progress also. The works of Messrs. Barningham, Hopkins, and others have been, and are still to be further extended; Messrs. Pease, Hutchinson, and Ledward, at Darlington, are already doing a considerable business; and Messrs. Fox, Head, and Co., at Middlesbro', and other firms promise to be at work in a short time. With most parties who are erecting the different descriptions of ironworks want of suitable material is a serious hindrance. The state of the blast furnaces of the Cleveland district on the 1st of May, 1864, was as shown by the table.

Statement of iron furnaces now in course of erection :—

	Building.	Foundations Ready.
Eston—Bolekow and Vaughan	2	—
„ Clay Lane Company	3	—
„ South Bank Company	3	3
Cargo Fleet—Jones, Dunning and Co.	1	—
„ Gilkes, Wilson, Peace and Co.	2	1
Middlesbro'—Hopkins, Lloyd and Co.	4	2
Port Clarence—Bell Brothers	2	—
Ferry Hill—James Morrison	4	—
Newport—B. Samuelson	3	—
	24	6

The steel works which Mr. Charles Attwood and partners have erected in the neighbourhood of *Tow Law* have been opened, and it is said that cast-steel will be manufactured there by a process discovered by Mr. Attwood, at a much reduced cost.

The coal trade has been brisk as regards manufacturing sorts, but household coal has been rather slack. The pitmen's strike at *Seghill* Colliery has terminated to the satisfaction of both masters and men. The *Hunwick* and *Newfield* Collieries were offered for sale at Newcastle, when they were bought in at the reserve price of 80,000*l.* They were then offered in separate lots, when the Newfield Colliery was bought for 20,000*l.*; 45,000*l.* was offered by Mr. Hoyle for Hunwick Colliery, the reserve price being 60,000*l.*, and it is expected that the property will be ultimately disposed of to him by private contract.

A prospectus has been issued of the *Harehope Gill Lead Mining and Smelting* Company, with a proposed capital of 100,000*l.*, in shares of 5*l.* each, with the object of purchasing the plant and the residue of seventeen years of the lease of a mining estate of about 900 acres at Weardale, Durham. The consideration for the purchase is to be 40,000*l.*, half in paid-up shares and half in cash, which will include preliminary expenses.

The exports from the Tyne include :—142,435 tons of coal; 8,866 tons of coke; and 38,542 cwts. of iron. The imports include :—Three cargoes of pyrites from Antwerp, and five cargoes from Pomaron; three cargoes of sulphur pyrites from Dordt; bar iron from Gothenburg; lead and copper from Almeira; copper ore from Santander; three cargoes of lead from Carthage; 1,320 pigs of lead from Seville, and 1,847 bars of the same from Alicante.

NORTHERN COUNTIES, NORTH LANCASHIRE, AND NORTH YORKSHIRE.

NORTHUMBERLAND AND DURHAM.—The iron trade has, on the whole, been fairly active, though in the Cleveland district it has been rather unfavourably influenced by the aspect of political affairs, still there has been a good demand for all kinds of iron, and prices have been pretty well maintained. Excepting at *Consett*, there are no furnaces out of blast between the Tyne and the southern boundary of Cleveland. For above a month sixty-three furnaces have been in full operation, and for a considerable period previous to that only one furnace was out of blast, it being under repair. There is some hope that even at *Consett* employment may be found for some of the idle furnaces.

A sale by one firm of 24,000 tons of pig has been, it is reported, recently concluded at good prices. Two or three transactions of the same extent would, in some measure, counteract the evils now operating prejudicially on the trade. It is said that the quality of the Cleveland iron is likely to be greatly improved by the admixture of titanium and manganese ores with the ironstone of the district.

It is stated that one of the largest ironworks and foundries in the North of England, situated in *Gateshead*, is shortly to be merged into a limited liability company, as the present principal partner intends retiring from business. At the *Skerne* Ironworks, belonging to Messrs. Pease, Hutchinson, and Ledward, about 200 hands are employed in manufacturing ship and boiler-plates. The *Hartlepool* Rolling Mills Company will, it is said, be in working order by the beginning of October, and rapid progress is also being made in the erection of the rolling mills at *West Hartlepool*.

The members of the local Pitmen's Union, better known as the Northumberland and Durham Miners' Mutual Confident Association, held their annual meeting in Newcastle on the 3rd and 4th of June. The chief business before the meeting was a proposition from the Northumberland members to divide the Union into two branches—one for Northumberland and one for Durham, but no decision was come to.

The coal trade of this district appears to be in a most satisfactory condition, and a steady business has been done throughout the month. The recent Admiralty instructions have quickened the demand for steam-coal, and all the collieries which yield that class of coal are doing good work. The demand for coke is also greatly on the increase, many of the coking collieries being unable to accept all the orders which they receive, and very high prices have been obtained.

Old collieries are being greatly extended. *Towneley* Colliery, the property of Mr. T. Y. Hall and partners, is being laid out for a very large trade. A colliery near *Newcastle* has done scarcely anything but contract work for the last five or six years, and just now the owners are receiving no end of orders and inquiries about guaranteeing supplies for one, two, or three years. To such an extent has the demand gone, that they are

putting down new shafts for the purpose of meeting it, and by Christmas, and perhaps earlier, they will have five or six pits in operation instead of one. The sale of collieries which took place a few weeks back at *Newcastle*, showed great confidence in the future of the coal trade, for very good prices were given, and information has come to hand that the *West Hartlepool* Harbour and Railway Company have disposed of the *Merrington* and *Page Bank* Collieries—the first to the owners of *Whitworth* Colliery, and the other to Messrs. Bell Brothers, the well-known ironmasters.

Messrs. Ridley and Co's. coal-cutting machine, which has been in use for some time in *Broomhill* Colliery, is said to give great satisfaction. It is also in use at *Hetton* Colliery, and should it continue to be successful, it will probably be introduced into other hard-coal collieries in this district.

Trade Review for Northumberland and Durham, 3 Aug 1864, Mining & Smelting Mag., vol. 6, p.101

NORTHERN COUNTIES, NORTH LANCASHIRE, AND NORTH YORKSHIRE.

NORTHUMBERLAND AND DURHAM.—The iron trade continues to make great progress. Old works are being extended, and new ones set on foot, more particularly in South Durham and Cleveland. There are forty-six furnaces near Darlington, producing annually 350,000 tons of pig-iron, and twenty-three more are in course of erection, which when finished will be of much larger dimensions than those now in blast. The total quantity of pig-iron made in the Cleveland district amounts to nearly 1,000,000 tons per annum. Iron shipbuilding is being rapidly developed on the Tyne, Wear, at the Hartlepoons, and on the Tees, and this causes a steady demand for iron-plates. New iron shipyards are being established, and wooden shipbuilders are gradually adapting their premises to the employment of the new material. In consequence of the greatly increased importance and the continued expansion of the Cleveland iron trade arrangements have been made for establishing a daily iron market at Middlesborough, and providing satisfactory store warrants.

The coal trade just now is more than usually active, the recent order from the Admiralty having given a considerable stimulus to the north country steam collieries, while the other collieries have been full of orders for some time past. In the coking colliery districts the supply falls far short of the demand, and ironmasters all over the kingdom are seeking long contracts in order to ensure continuous supplies. The price of coke in consequence has gradually advanced, the principal cause of its present high price being the rapid development of the Cleveland iron trade, and the falling off in the supplies hitherto derived from the Staffordshire coal field. It is stated that new shafts are being sunk at *Castle Eden* and *Coxlodge* Collieries; at the latter colliery this is the second within a short period, and it is expected that it will place the works on a very good footing.

On July 4th, in accordance with previous arrangement, a deputation of the miners of *Adelaide* Colliery waited upon J. Pease, Esq., at the office in Darlington, for the purpose of discussing their claims to a further advance of one shilling on the "score price." It appears that the men at this colliery had been earning on an average 3s. 11½d. a-day, and some of them had been making 5s. 6d. a-day. It is said that the colliery had been "hung on" for about a fortnight, and the men might have wrought during the whole of that time had they felt disposed; but they did not do so, to the consequent detriment of their employers. The miners were represented by four of the workmen at the above colliery. The question of wages was fully discussed, and although the men were bound to get coal at a certain price per score for twelve months, yet Mr. Pease gave an advance of 6d. per score to those who use lamps, and of 3d. per score to those who work with candles.

The exports from the Tyne include:—90,186 tons of coal, 2,877 tons of coke, and 45,390 cwts. of iron. The imports include:—20 cargoes of pyrites, and 50 tons of bar iron.

Trade Review for Northumberland and Durham, 3 Sep 1864, Mining & Smelting Mag., vol. 6, p.166-168

NORTHERN COUNTIES, NORTH LANCASHIRE, AND NORTH YORKSHIRE.

NORTHUMBERLAND AND DURHAM.—The iron trade of this district still maintains a good position. It is stated that the establishment of an Exchange at Middlesborough has had a very satisfactory effect upon the market, and has caused an advance of quite 2s. per ton. Eight or nine new furnaces are expected to be put into blast during the next six months, the joint weekly production of which is estimated as likely to be nearly 3,000 tons.

In the *Cleveland* district trade keeps tolerably steady though quiet. There are 27 furnaces in course of erection, and the rolling mills and foundries are well supplied with orders. The last report from *Middlesborough* states that the export trade is inactive, chiefly on account of the reduction of the French duty on pig-iron of 4s. per ton on the 1st of October, which makes the French consumers hold back in the meantime. A good trade with Prussia is expected in the autumn.

Messrs. Whitwell and Co. are it is said about to erect malleable ironworks, immediately adjoining their furnaces at South Stockton. The following was the state of the blast-furnaces of the district on August 5th:—

Place and Owners.	In.	Out.	Total.
Eston—Bolckow and Vaughan	9	—	9
„ Clay Lane Company	6	—	6
„ South Bank Company	3	—	3
Cargo Fleet—Jones, Dunning, and Co.	2	—	2
„ Cochrane and Co.	4	—	4
„ Gilkes, Wilson, Pease, and Co.	5	—	5
Middlesbrough—Bolckow and Vaughan	4	—	4
„ Hopkins and Co.	2	—	2
Port Clarence—Bell Brothers	6	—	6
Norton—Warner, Lucas, and Barrett	3	—	3
Stockton—Holdsworth and Co.	3	—	3
Ferryhill—J. Morrison	3	—	3
Newport—B. Samuelson	2	1	3
Thornaby—W. Whitwell and Co.	3	—	3
Darlington—South Durham Company	3	—	3
Witton Park—Bolckow and Vaughan	4	—	4
Stanhope—Weardale Iron Company	1	—	1
Towlaw—Weardale Iron Company	5	—	5
Consett—Derwent Iron Company	6	12	18
Total	74	13	87

The *Shotley Iron Company*, whose works are near Consett, have made up their books, which show a profit on paid-up capital of over 100 per cent. The *Rosedale* mines in Cleveland and the *Ferryhill* Ironworks have become the property of a limited liability company called the *Rosedale and Ferryhill Iron Company* (limited). Another important purchase of iron and coal works has just been completed, through Messrs. Chadwick, Adamson, M'Kenna, and Co., of London and Manchester, the agreement having been signed for the transfer to a company to be called *Bolckow, Vaughan, & Co.*, limited, of the works and property of Messrs. Bolckow and Vaughan, at Middlesbrough, Wilton Park, Eston, White Lee, Woodfield, Sheldon, West Auckland, and other places in Yorkshire and Durham, at which establishments more than 9,000 persons are employed. The whole of the properties and stock are taken by valuation, and the estimated total purchase-money will be about 1,500,000*l.* The capital of the new company has been fixed at 2,500,000*l.*, in 25,000 shares of 100*l.* each. The vendors take 400,000*l.* of the capital, in 8,000 shares, with 50*l.* paid up. A deposit of 20,000*l.* has been paid, and a farther sum of 230,000*l.* will be provided in January next, when possession will be given to the new company. The remainder of the capital will be subscribed privately, three-fourths of it being already taken.

There has been a brisk demand for steam-coal, which has caused an advance of 6*d.* per ton, and at a meeting held on Aug. 20th, it was decided to raise the price of house-coal also 6*d.* per ton.

A dispute has arisen at *Newsham* colliery, and the men employed there have come out on strike. They in the first instance demanded an advance of one-halfpenny per ton and a certain amount of remuneration for the "rammel." A deputation from the men waited upon the

masters, who declined to give the advance asked for, as the average daily earnings of the men was 5s. 9d. ; but they offered to reduce the price paid for the best work and add it to that which did not pay so well. This, however, did not meet the wishes of the men, who gave in their notices ; and they have now been nearly three weeks on strike. They have subsequently offered to give up the demand for a halfpenny per ton if the masters would give them some consideration for the "rammel." The masters state that the matter is now out of their hands, having been taken up by the committee of the Coalowners' Association.

The exports from the Tyne include :—148,952 tons of coal, 9,442 tons of coke, and 26,627 cwts. of iron.

Trade Review for Northumberland and Durham, 3 Oct 1864, Mining & Smelting Mag., vol. 6, p.234-235

NORTHERN COUNTIES, NORTH LANCASHIRE, AND NORTH YORKSHIRE.

NORTHUMBERLAND AND DURHAM.—The iron trade remains without material alteration. The disputes between the iron masters and the men still continue, but the prompt measures adopted by Messrs. Palmer Brothers, of Jarrow, in taking legal proceedings against the secretary of the Labourers' Aid Society for intimidation, upon which charge he was sent for three months to gaol, and the further committal of seven other men to gaol for one month each, who had left their blast-furnaces at that place without leave, have had a tendency to check the turn-out of labourers and other workmen on the Tyne.

On September 21st, all the men employed at the iron works of Messrs. Bolckow and Vaughan, *Middlesbro'*, turned out in a body on account of the conduct of a watchman at the works, who, it is stated, prevented his companions from carrying an injured man to the infirmary, in consequence of which he died without medical assistance having been called. This has been settled by the resignation of the watchman, and the men have returned to work.

The blast-furnaces in course of erection by Sir William Armstrong

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and his partners at *Elswick*, are rapidly approaching completion, and will soon be in active operation. An ample supply of ore will be obtained from the Ridsdale mines, on the North Tyne, the iron produced from which has been proved to be of superior quality. A site is being sought west of *Elswick*, on which a local firm purpose to erect extensive rolling and puddling mills.

It is stated that another limited liability company for iron-making has been started at *Stockton*, with a capital of 100,000*l.*

The coal trade of this district has been brisk, although the threatened strikes have had a marked effect. In some cases, the disputes have been satisfactorily settled, while others still remain undecided.

The *Stella* Coal Company are progressing rapidly with the sinking of their new pit near *Blaydon-on-Tyne*. It is expected to open out some excellent seams of gas coal, and a long range of coke ovens are in course of erection near the spot. The *Mickley* Coal Company are sinking a new shaft near *Prudhoe*. The *North Seaton* Steam Coal Company have suspended the sinking of a large pit at *Cambois*, on the river *Wansbeck*, until the erection of powerful pumping and winding machinery is completed. They have at present *Cowpen*, *Sleekburn*, *North Seaton*, and *Newsham* collieries in full work.

On Sept. 7th, an explosion occurred at *Seghill* Colliery, causing the deaths of seven of the workmen, and injuring nine others.

The exports from the Tyne include :—49,309 tons of coal ; 3,600 tons of coke ; and 16,750 cwts. of iron.

NORTHERN COUNTIES, NORTH LANCASHIRE, AND NORTH YORKSHIRE.

NORTHUMBERLAND AND DURHAM.—The iron trade has been very buoyant on the whole, though towards the end of October a slight check was felt in consequence of the fluctuation in the money market. Owing to the strikes in Staffordshire, a large number of men are seeking employment in this district. At *Witton Park* the trade for plates and rails is reported never to have been better, and the masters have large orders on their books.

It is stated that Messrs. Fox, Head, and Co., are about to commence operations at their new Plate Mills, at *Newport*; and that Messrs. Barningham (Darlington Iron Works) are contemplating important additions. The *Consett Iron Company* have held their first half-yearly meeting when the chairman announced that the nett profits for the half-year amounted to 21,000*l.*, placing them in a position to declare a dividend of ten per cent. At *Grosmont* the first sod of new blast-furnaces for the *Glaisdale* ironworks has been cut.

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The coal trade has been generally brisk, and the pits working well.

The following table shows the state of the blast furnaces on October 14th.

Place and Owners.	In.	Out.	Total.
Eston—Bolckow and Vaughan.....	9	—	9
„ Clay Lane	6	—	6
„ South Bank Co.....	3	—	3
Cargo Fleet—Jones, Dunning, and Co.	2	—	2
„ Cochrane and Co.	4	—	4
„ Gilkes, Wilson, Pease, and Co.	5	—	5
Middlesbro'—Bolckow and Vaughan ..	4	—	4
„ Hopkins and Co.....	2	—	2
Port Clarence—Bell Brothers ...	6	—	6
Norton—Warner, Lucas, and Barrett	3	—	3
Stockton—Houldsworth and Co.....	3	—	3
Ferryhill—J. Morrison	3	—	3
Newport—Mr. Samuelson.....	3	—	3
Thornaby—W. Whitwell and Co.....	3	—	3
Darlington—South Durham Co.	2	1	3
Witton Park—Bolckow and Vaughan..	4	—	4
Stanhope—Weardale Iron Co.....	1	—	1
Towlaw—Weardale Iron Co	5	—	5
Consett—Derwent Iron Co.....	8	10	18
	—	—	—
Total	76	11	87

A meeting of delegates from the collieries in Northumberland was held on October 15th at *Seaton Delaval*, when, after a lengthy discussion on the *Sleekburn* question, a deputation was appointed to wait upon the committee of the Coal Trade Association for the purpose of trying to bring about an amicable settlement.

A first dividend of 9*d.* in the pound is announced as payable to the creditors on the estate of Mr. W. N. de Mattos, coal exporter, who failed at the end of last year. A further distribution is expected to be made in November.

NORTHERN COUNTIES, NORTH LANCASHIRE, AND NORTH YORKSHIRE.

NORTHUMBERLAND AND DURHAM.—The check felt in the iron trade in consequence of the fluctuation in the money market having been removed a more healthy tone now prevails in the whole district. There has been an unusually large demand for pig-iron, and the rolling mills have also been well employed. It is expected that the *Ridsdale* mines will shortly be in full working order.

The state of the blast furnaces on Nov. 19th was as follows:—

Place and Owners	In.	Out.	Tot.
Eston—Bolckow and Vaughan... ..	9	—	9
„ Clay Lane Co.	6	—	6
„ South Bank Co.	3	—	3
Cargo Fleet—Jones, Dunning, and Co.	2	—	2
„ Cochrane and Co.	4	—	4
„ Gilkes, Wilson, Peace, and Co.	5	—	5
Middlesborough—Bolckow and Vaughan	4	—	4
„ Hodgkins and Co	2	—	2
Port Clarence—Bell Brothers	6	—	6
Norton—Warner, Lucas, and Barrett... ..	3	—	3
Stockton—Holdsworth and Co.	3	—	3
Ferryhill—Rosedale Iron Company, Limited	3	—	3
Newport—B. Samuelson	3	—	3
Thornaby—W. Whitwell and Co.	3	—	3
Darlington—South Durham Co.	2	1	3
Witton Park—Bolckow and Vaughan	4	—	4
Stanhope—Weardale Iron Co., Limited	1	—	1
Towlaw—Weardale Iron Co., Limited	5	—	5
Consett—Derwent Iron Co., Limited	8	10	18
Total	76	11	87

STATEMENT OF FURNACES BUILDING.

Normanby—Jones, Dunning, and Co.	1	nearly ready.
Eston—South Bank Co.	2	nearly ready.
Ditto ditto	1	$\frac{3}{4}$ completed.
Middlesborough—Hopkins, Lloyd, and Co.	2	ditto.
Eston—Bolckow and Vaughan	2	$\frac{1}{2}$ completed.
Fighting Cocks—Middleton Iron Co.	2	ditto.
Eston—South Bank Co.	2	commenced
Middlesborough—Stevenson, Jacques, and Co.	2	ditto.
Cargo Fleet—Swan, Strawbenzie, and Co.	2	ditto.

Although ten furnaces appear out of blast at Consett, it must be borne in mind that they never were in blast at all to the present proprietary, the works being the property of the defunct District Bank of Newcastle; and the eight furnaces in blast at Consett, and the very extensive rolling-mills attached thereto, are now being worked by a body of the late shareholders of the Bank, the remaining ten furnaces never having been in blast by them at all for several years.

The *Portrack* new malleable iron works, at Stockton-on-Tees, under the management of Mr. Hill, late of the Consett Iron Works, are being extensively enlarged, several new furnaces are being erected, and when all the arrangements are fully completed the works will extend over some acres of ground.

The coal trade has shown continued activity in all its branches, but the stormy weather has caused a scarcity of shipping at the various ports and a consequent advance in freights.

Trade Review for Northumberland and Durham, 3 Jan 1865, Mining & Smelting Mag., vol. 7, p.43

NORTHERN COUNTIES, NORTH LANCASHIRE AND NORTH YORKSHIRE.

NORTHUMBERLAND AND DURHAM.—The ironworks in this district have been well employed, and the men have been steadily at work. The South Durham Company have lighted another furnace, making the total number of furnaces in blast in the Tees district 77.

The number of blast-furnaces on the Tyne is stated to be increasing. In addition to those in course of construction for Sir William Armstrong & Co., at Elswick, for smelting the Ridsdale ores, there are three large ones nearly completed at Low Walker, for Messrs. Losh, Wilson, & Bell.

The coal trade has been active, and there has been a good demand for steam and house-coal. *Byer's Green* colliery, belonging to the West Hartlepool Railway Company, was sold by auction on December 13th. The bidding was commenced by Mr. Isaac Lowthian Bell, with the offer of 30,000*l.*, his last bid being 44,500*l.* Mr. Richard Heckels, colliery viewer, Pensher House, bid 36,500*l.*; Mr. John Clayton, Newcastle, offered 41,600*l.*; Mr. George Dyson, of Tudhoe Iron-works, 50,400*l.*; and Mr. John Marley, engineer, Darlington, 51,100*l.* The last offer was made by Mr. Joseph Dodds, Stockton—51,200*l.* The colliery was afterwards purchased privately by Mr. Dodds, for Messrs. Bolckow, Vaughan, & Co. for 53,000*l.*, the amount of the reserved bidding.

Trade Review for Northumberland and Durham, 3 Feb 1865, Mining & Smelting Mag., vol. 7, p.116-118

NORTHERN COUNTIES, NORTH LANCASHIRE, AND NORTH YORKSHIRE.

NORTHUMBERLAND AND DURHAM.—The pig-iron trade has shown a slight improvement, and the sales have been very good. Notice has been given to the men

employed at the blast furnaces of a reduction of wages, and the masters intimate to them that if they refuse they will blow out the furnaces. It was anticipated that the men employed in the several ironworks would have accepted the reduction in prices proposed by the masters, and that matters would have been placed upon a satisfactory footing. This has been the case at all the important works in the district with the exception of Consett. At this place arrangements had been made under which the whole of the men had agreed to commence work again on the terms offered by their employers; and on the afternoon of January 23rd the fires were lighted, and everything made ready for a commencement, when unfortunately another hitch occurred. The shinglers declined to start, expressing their dissatisfaction with the terms to which the other men had given in their adhesion. The result of this unexpected opposition was that the works were brought again to a stand-still, and there is every appearance, unfortunately, of the misunderstanding leading to a protracted dispute. The iron trade of the district, in a general sense, shows signs of improvement

A prospectus has been issued, proposing to incorporate as a limited liability company the extensive ironworks and iron shipbuilding yard of Messrs. Pile, Spence, and Co., West Hartlepool, the capital to be £500,000, in £20 shares.

The coal trade has been dull, although most of the pits are in full work. The scheme for draining and re-opening the drowned-out collieries on the Tyne has been revived, the undertaking having been started by a limited liability company. The pits at Wallsend, Willington, Howdon, Percy Main, Burden Main, Hebburn, and Jarrow, lying between Newcastle and Shields, have been flooded with water and abandoned several years. They contain seams of coal which have very much increased in value within recent times by the development of manufactories, and the late Mr. T. J. Taylor, the well-known mining engineer, demonstrated the practicability of clearing these mines of water by the employment of powerful pumping engines, and the recent increase in the price of coal, especially of small coal used by manufacturers, which have about doubled in price within a very few years, is one reason inducing capitalists to embark in the enterprise to work those pits again. The whole of the capital for the company was taken up without any

prospectus having been issued, and if these pits are put into a working state, and are made productive they will have the most important influence upon the industrial operations of the Tyne, as the only hinderance to the unlimited development of the iron and chemical trades of this river would be an increase in the price of manufacturing coal beyond a certain point.

From Messrs. Stephenson & Co.'s annual report of the *Cleveland* iron trade it appears that stocks this year are larger than usual, 38,500 tons being in store, and 25,000 tons in makers' hands. The production of pig iron in 1864 has not exceeded the make of 1863 to the extent predicted, in consequence of the delay in completing the furnaces in course of erection at the beginning of the year, but it may safely be computed at 904,030 tons. Eight new furnaces only have been blown in, three undergoing repairs have been re-lighted, and one has been blown out. There are ninety-three and twenty-one furnaces in and out of blast respectively, and thirty-three new ones building. The mineral wealth of the district must some day feel the annual drain upon its resources. The duration and probable value of the raw material may be estimated, if we consider the annual consumption of mineral for the purpose of pig iron making alone. To make 904,000 tons of pig iron no less than 1,286,350 tons coke, 2,940,500 tons ironstone, and 651,800 tons limestone were used in its conversion. The demand for manufactured iron was good at the beginning of the year, but, owing to the stagnant state of the iron shipbuilding trade, and from other causes, it has greatly diminished, and prices consequently are low, and barely remunerative. The labour question has assumed a very grave aspect, and unless the workmen consent to a reasonable reduction in their wages, the manufacturers must, in self-defence bring their works to a stand. The following is a list of furnaces in and out of blast and building:—

Proprietors.	Name of Works.	Gross No. of Furnaces.	In Blast	Out Blast	Building.
Albert Iron Company	Hinderwell ...	1	...	1	...
Armstrong, Sir W. & Co.	Elswick .....	...	...	...	2
Bolckow, Vaughan, and Co., Limited	Cleveland	9	9	...	2
"	Middlesbro' ...	4	4	...	...
"	Witton Park ...	4	4	...	...
Bell Brothers	Clarence	6	6	...	2
"	Wylam	1	1	...	...
"	Felling	2	2	...	...
Bell, Hawks, & Co.	Wear	1	1	...	...
Birtley Iron Co.	Birtley	8	2	1	...
Bagnall & Son	Grosmont	2	2	...	...
Bastow & Co.	Carlton .....	...	...	...	...
Cochrane & Co.	Ormsby	4	4	...	...
Clay Lane Iron Co.	Clay Lane	6	6	...	...
Consett Iron Co., Limited	Consett	18	8	10	...
Gilkes, Wilson, Pease, & Co.	Tees	5	5	...	2
Houldsworth, Benington, & Co. ...	Stockton	3	3	...	...
Hopkins & Co.	Tees Side	2	2	...	...
Hopkins, Lloyd, & Co. ....	" .....	...	...	...	4
Jones, Dunning, & Co.	Normanby	3	2	1	...
Jarrow Iron Co.	Jarrow	4	3	1	...
"	Wallsend	2	2	...	...
Losh, Wilson, & Bell	Walker	5	2	3	...
Marchioness of Londonderry	Seaham	2	2	...	...
Rosedale & Ferry Hill Iron Co. ...	Ferryhill	3	3	...	6
Middleton Iron Co.	Fighting Cocks .....	...	...	...	2
Southbank Iron Co.	Southbank ...	3	3	...	6
South Durham Iron Co.	Darlington ...	3	3	...	...
Samuelson, B. & Co.	Newport	3	3	...	...
Swan, Straubenzie, & Co.	Cargo Fleet ...	...	...	...	2
Washington Chemical Co.	Washington ...	1	...	1	...
Weardale Iron Co., Limited	Tow Law	5	3	2	...
"	Stanhope	1	...	1	...
Warners, Lucas, and Barrett	Norton	3	3	...	...
Whitwell & Co.	Thornaby	3	3	...	...
Tyne Iron Co.	Lemington ...	2	2	...	...
Stephenson, Jaques, & Co.	Acklam .....	...	...	...	3
		114	93	21	33

NORTHERN COUNTIES, NORTH LANCASHIRE, AND NORTH YORKSHIRE.

NORTHUMBERLAND AND DURHAM.—The iron trade of this district has been rather dull and unsettled; but prospects are stated to be somewhat brighter. On February 18th, notices were posted up at nearly all the iron-works, that unless the men now on strike in North Staffordshire go in by the 11th of March, all the puddlers in Great Britain will be locked out. Some dissatisfaction has been shown by the men with regard to the reduction in prices, but not to an extent to excite apprehensions of a protracted strike. On February 13th, the furnacemen, &c. employed at the iron-works of Messrs. Gilkes, Wilson, Pease, and Co., Cargo Fleet, near Middlesborough-on-Tees, went out on strike. The firm have five furnaces at Cargo Fleet, two of which were blown out at the end of January; and the strike has had the effect of suspending the working of the other three.

The blast-furnaces and iron-works of Sir William Armstrong, at Elswick, are expected to be opened in May next. In the mean time, the coal and iron ore works at Ridsdale are making good progress, so that the supplies for the works at Elswick will be fully prepared. But independent of this, these works are well situated for obtaining a supply of ore, coke, &c. from other quarters. The new iron-works in connection with the establishment of Messrs. Hawks, of Gateshead, are also rapidly approaching completion. They are situated a short distance from the present works, and consist of puddling-furnaces, rolling-mills, &c., on a large scale, and are fitted up in the best manner, embodying all modern improvements.

The *Durham Advertiser* states that the whole of the collieries and works of the late Marchioness of Londonderry will be carried on by Earl Vane. It is stated that a number of shares in the Consett Iron Company belonging to the Stockton and Darlington Railway have been sold for £70,000, the payment to extend over ten years, the present value of the shares in the market being only £54,000.

The following is a return of the state of the blast-furnaces of the district on February 3d:

Proprietors.	Name of Works.	In Blast.	Out Blast.	Total.
Bolckow & Vaughan	Eston	9	...	9
Clay Lane Co.	"	6	...	6
South Bank Co.	"	3	...	3
Jones, Dunning, & Co.	Cargo Fleet	2	...	2
Cochrane & Co.	"	4	...	4
Gilkes, Wilson, Pease, & Co.	"	4	1	5
Bolckow & Vaughan	Middlesbrough ..	4	...	4
Hopkins & Co.	"	2	...	2
Bell Brothers	Port Clarence ..	6	...	6
Warner, Lucas, & Barrett	Norton	3	...	3
Holdsworth & Co.	Stockton	3	...	3
Rosedale Iron Co., Limited	Ferryhill	3	...	3
B. Samuelson	Newport	3	...	3
W. Whitwell & Co.	Thornaby	3	...	3
South Durham Co.	Darlington	3	...	3
Bolckow & Vaughan	Witton Park	4	...	4
Weardale Iron Co., Limited	Stanhope	1	...	1
"	Towlaw	5	...	5
Derwent Iron Co., Limited	Consett	8	10	18
Total		76	11	87

Statement of Furnaces Building.

Jones, Dunning, & Co.	Normanby	1 ready.
South Bank Co.	Eston	2 nearly ready.
"	"	1 two-third completed
Hopkins, Lloyd, & Co.	Middlesbrough ..	4 nearly completed.
Bolckow & Vaughan	Eston	2 half completed.
Middleton Iron Co., Limited	Fighting Cocks .	2 half completed.
Rosedale Iron Co., Limited	Ferryhill	4 nearly ready.
South Bank Co.	Eston	3 commenced.
Stevenson, Jaques, & Co.	Middlesbrough ..	3 "
Swan, Straubenzie, & Co.	Cargo Fleet	2 "
Bastow & Co.	Carlton	2 half completed.

The coal trade has been moderately active, and the colliers generally have been well employed. Several screw colliers have been recently launched from the iron-shipbuilding yards of the Tyne.

Operations have commenced at Brancepeth Colliery to sink a new pit. The men are rapidly going down, and it is expected ere long to draw coal. New ovens and fire-brick works will be erected, thus making Brancepeth the largest coke-works in the North.

A boring has recently been made by the trustees of the Earl of Eldon on the western part of the Chilton estate, in the county of Durham. The boring was placed under the charge of Mr. Scott; and the Five Quarter Seam has been proved, with a good workable section. The late lessees of the coal-mine, the trustees of the West Hartlepool Collieries, caused a boring to be made at the same point in 1863, and it was then reported that the Five Quarter Seam did not exist. The colliery and royalties were afterwards abandoned.