

The Mining Journal

3rd June 1848

Page 264 Col. 2

Accidents.

Goginan Mines, Aberystwyth – An accident, which is likely to be attended with loss of life, occurred at the Goginan Mines, about 7 miles from this place, on the 30th May. Two miners had been preparing a blast, which, by some unforeseen occurrence, exploded before they escaped – their lives are in danger. We cannot ascertain whether they were using the safety fuse, but we fear that precaution was not taken.

Hales Owen, Staffordshire – W. Callaghan was killed by a fall of coal at Messrs. Whitehouse and Peacock's Colliery, Newbury Lane.

Brierley Hill – A boy, named Ley, met with a severe accident at Messrs. Wheeley's ironworks – his hand being caught among the machinery, and much crushed.

Darlaston – T. Smith was killed by a fall of coal at Mr. Philip William's colliery.

The late Fatal Explosion at the Heath Colliery, West Bromwich – Another man, who suffered in the late dreadful catastrophe at the Heath Colliery, of the name of John Tilson, has died from the effects of the injuries he sustained – making the 12th victim.

Greet's Green, West Bromwich – John Jones was killed whilst at work in the Shoe Coal Pit, belonging to the trustees of the late Mr. Horton, by a quantity of coal falling upon him.

Dreadful Accident to a Boy – An accident of a most distressing nature occurred to a boy only 12 years of age, named E. Williams, while employed in Messrs. Addenbrooke's coal and ironstone pit, Darlaston. It appears that his duty was to hook and unhook the skips at the bottom of the shaft; and as he did not answer the call of another person working farther up the shaft, attention was directed to the cause, and he was found lying dead at the bottom of the pit. His skull was fractured, and, as a piece of stone was lying not far from him, it is supposed that this had caused his death, from its having fallen out of a descending skip. – Birmingham Journal.

Cwm Ammon, near Aberdare – A Cornishman, named Paul Quirk, was killed at a new colliery pit, recently opened by Messrs. Sheppard and Co., in the following manner: - He was standing at the edge of the pit, awaiting the ascent of a bucket filled with mine; but, before it had reached the surface, the rope suddenly snapped in two, and the end of the upper part was thrown by the violence with which it was broken, to the top of the pit, where it struck poor Quirk such a violent blow, that he fell into the shaft, and was killed, perhaps, even before reaching the bottom, which was at a depth of about 60 yards. The remains of the unfortunate miner were gathered up, shockingly mutilated, and brought, in a temporary shell, to the Aberdare Railway Station, from whence they were removed to Merthyr. Quirk was an industrious workman, and had not been long engaged at the colliery – Monmouthshire Merlin.

Mabe, near Falmouth – As J. Lawry, a quarryman, was preparing to blast a rock, a sudden explosion took place, and awfully mutilated him – he lived only five minutes. His son and a young man were injured, but not seriously.

Alfred Consols – J. Trevean fell away from the ladder down the shaft, and was killed.

Ansell's Colliery, Walsall – Ann Wood, aged 13, was riding on part of the machinery, when she was thrown off and killed on the spot.

Old Park Colliery, Brierley Hill – As W. Insull, a carpenter, 70 years of age, was repairing the pitwork, and was in the act of descending the pit frame, he slipped, and striking the back of his head on the sill, expired on the spot.

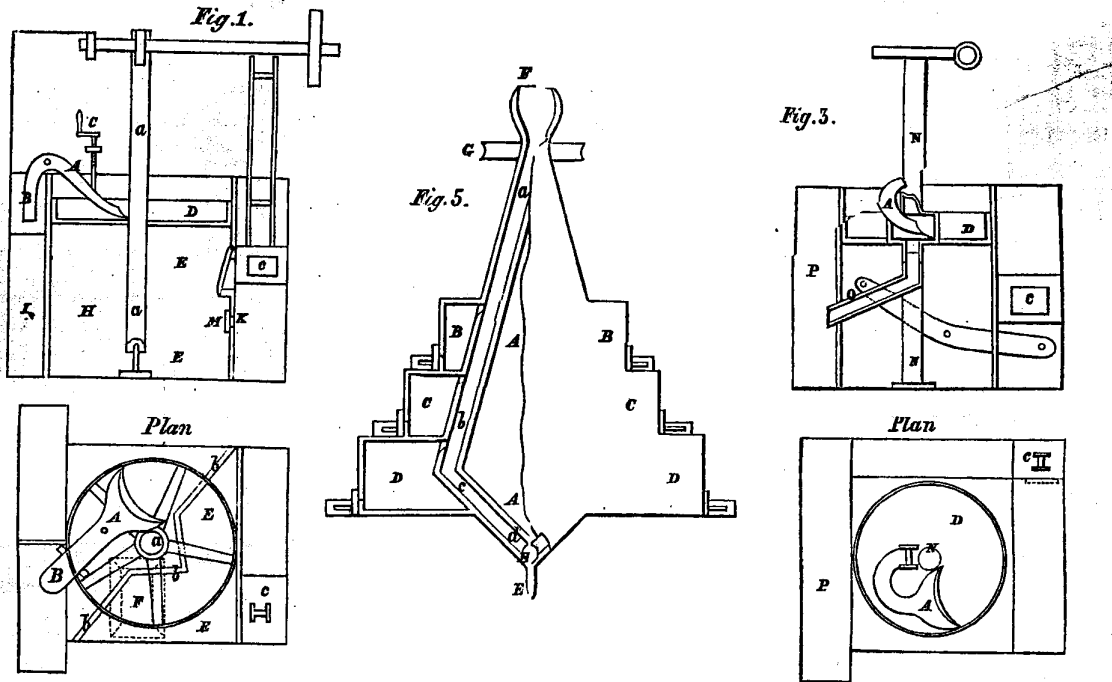
Willenhall Road, Bilston – J. Holland was, unfortunately, killed by a fall of coal in a pit near Stoke's engine.

T. Arnold, a collier, aged 24, lost his life by an explosion of fire-damp, while working in one of the pits at Lockoford: he was dreadfully burnt, and survived only 48 hours after the occurrence. Four other men, who were working with him, were also much burnt, but we are glad to hear they are now in a fair way of recovery – Derby Reporter.

Accident on the South Devon Atmospheric Railway – One of the men employed in filling the apertures in the tube near the Newton Station, it is supposed, fell asleep on the rail on Saturday night last, and the 11 p.m. train passed over his leg, and severed it in an instant. He was sent per next train to Exeter Hospital, with but little hopes of his recovery, from great loss of blood.

Shocking Accident to a Railway Sub-Contractor – On the afternoon of Monday last, about 4 o'clock, an accident, which unfortunately was attended by most painful circumstances, occurred at the top of Beacon Hill, near this town (Halifax). A tunnel (as most of the readers are aware) is in course of formation under the hill, and five shafts are sunk at certain distances along the course of the line. At the mouth of the main shaft, which is at the summit of the hill, a steam engine has been for some time at work, and the engine chimney forms a conspicuous object of the brow of the hill from every part of the town. On Monday afternoon, Mr. Wood, sub-contractor, was standing talking to the engineer, close by the engine, when the large flywheel suddenly burst in pieces. One of the spokes of the wheel, in weight about 2cwts, struck Mr. Wood on the left knee, literally amputating the leg, and leaving only a very small portion of skin. Another part of the wheel was sent through the top of the engine-house into the air to an amazing elevation, and descended upon the ground at a distance of about 50 yards from the spot where the engine is erected, and buried itself in the earth. The engineer was not even touched by the flying materials. Every assistance was immediately rendered the unfortunate gentleman, and hundreds of "navies" and others were promptly upon the spot. Mr. Harrison, surgeon, was immediately sent for, and fortunately was coming in the direction of the works. A shutter being provided, Mr. Wood was conveyed to his residence near Shaw Lodge Mills, where the leg was further amputated a little above the knee. Mr. Wood passed only an indifferent night, and at one time fears were entertained of his ultimate recovery – the loss of blood, and the shock to the system, by so dreadful an accident, being very great. He is, however, progressing favourably. At the time of the accident a boy was ascending the shaft in a basket, but the breaking of the flywheel at once caused the rope to descend, and the poor lad was precipitated to a depth of 30 yards, but from the rope having to uncoil itself, and there being no great weight in the basket, he did not descend at any great velocity; upon alighting at the bottom, he received a severe blow upon the head from some part of the tackling, and was knocked senseless. Upon reaching terra firma, and finding his head bleeding, he set off at the top of his speed, and running directly to the surgery of Mr. Harrison, on North Parade, in the utmost fright, anxiously inquired if he was killed? The lad's head was examined, and found to have sustained a slight bruise. No cause can be assigned for the sudden breaking of the flywheel. – Halifax Guardian.

IMPROVEMENTS IN DRESSING ORES.



[Specification of Patent, dated 16th November, 1847, granted to William Brunton, jun., of Pool, Cornwall, civil engineer, for certain apparatus for dressing ores or minerals].

The patentee, in describing his invention, commences by stating, that for dressing ores or minerals of such size as are usually "jigged", he constructs a tank, about 5 or 6ft square, and of a suitable depth for the deposition of the ore; within this tank he constructs an annular sieve of wire or perforated metal plate, the apertures in which are proportionate to the size of the ore to be dressed thereon: this sieve, which is formed with marginal sides of about 7 or 8in deep, is mounted upon a moveable axis, a, and receives motion from any suitable prime mover; and a portion of the tank, immediately beneath such sieve, has division plates, b, b, fixed therein – a pump, c, being fixed in a part of said tank, for the purpose of forcing water by intermitting impulses through that portion of the annular sieve immediately over the division plate before mentioned; the effect of which is to agitate, separate, and liberate the ore from the waste, and to cause the same to be deposited in separate receptacles, by the following means, and in the following manner: - A marks a skimmer, one end of which is made of a shovel form, and of nearly half the diameter of the sieve; and from thence, rising at an angle of about 20°, is a pipe which bends over the margin of the sieve, and terminates in a descending limb, B, which operates as a siphon – the same being supported by pivots, and provided with an adjusting screw, C, for the purpose of raising or lowering the said skimmer within the sieve, D. The operations of this arrangement are as follows: - The part, E, of the tank being filled with water,

and the ore placed upon the bottom of the sieve, through a hopper, F, furnished with an adjustable shutter or valve, G, upon motion being imparted to the pump, the water will be impelled in an upward direction through that portion of the sieve immediately over the divided portion of the tank – the effect of which will be to agitate the ore, and thereby to separate the waste therefrom; and the ore being heavier will fall through the meshes of the sieve, and be deposited in the part, H, of the tank; and the lighter particles and waste, by the agitation of the water, will be kept in suspense until the rotation of the sieve, together with the interval of time between each impulsion, will allow the agitation to subside, when the particles will be precipitated; but, in order to prevent them from passing through the sieve, the patentee employs the skimmer pipe, A, before mentioned, the flattened end of which he adjusts to within as short a distance of the bottom of the sieve as experience may suggest – thus, as the sieve rotates, the particles as they precipitate will be arrested by the mouth of the skimmer, and be carried off by the pipe, A, into the receptacle, I, where they will be deposited, and the water, separating therefrom, passes to the pump, to be again operated upon as before.

The patentee states that, when the nature of the ore is such as to require the water to descend after each upward impulsion, the same may be effected by having an opening, K, below the piston, furnished with a shutter, or valve, M, for regulating it. Or the like result may be obtained by fixing the sieve, D, immovably within the tank, as exhibited at fig. 3, and by connecting the skimmer to the axis, N, which is hollow, cause the same to revolve – the waste and lighter particles being carried off by the skimmer through the hollow axis, N, and jointed pipe, O, connected thereto, into a receptacle, P, the ore passing through the sieve into the tank. The patentee states that, when the sieve becomes so much charged with ore as to risk its being carried off with the waste, he stops the feeding, and lowers the mouth of the skimmer, so as to remove the ore to a separate receptacle, a shoot being placed upon the pipe for that purpose. By this last arrangement of the apparatus, it will be seen that the impulsive force of the water will be exerted over the whole surface of the sieve, instead of a portion only thereof, as in the former arrangement – the force of each impulsion being sufficient to agitate the metallic particles, so as to liberate the waste therefrom; the interval of time between each impulsion being sufficient to allow the agitation to subside, and the particles to assort themselves in the compound ratio of their specific gravity and bulk. The patentee further states, that the area of the pump should not be less than one-third that of the sieve, and that the ore should be subjected to 60 or 100 impulsions before skimming the water.

In dressing small ores, or slimes of ore, the patentee subjects them to an artificial state of gravitation – they being first sufficiently liquefied with water, to separate the metallic particles from the waste by agitating the water; and this he effects by the apparatus exhibited at fig. 5, which is constructed and actuated in manner following: - AA marks a hollow trunk, having passages, a, b, c, d, formed therein, which communicate by openings * * *, with receptacles, B C D, formed at opposite sides of the said trunk. E marks a pivot situate at the bottom of the trunk, and F a funnel-shaped pivot at the top thereof, by which the apparatus is retained in a vertical position, and is susceptible of receiving rotary motion from a strap, or band, passing over a rigger, at G, actuated by any suitable prime mover, and moves at a suitable velocity.

The operations of this apparatus are as follows: - The trunk, A, is first filled with water, and the cock, H, opened, to a certain extent, for the discharge thereof; the operator then proceeds to feed the trunk, by the funnel, F, with liquefied ore; at the same time, rotary motion is imparted to the trunk, whereby the water, and metallic and other particles, contained therein, become agitated, and, assorting themselves in the compound ratio of their specific gravities and bulk, become precipitated and deposited in the following manner – the heavier portions, when brought into contact with the opening, *, leading from the trunk to the receptacle, A, will be deposited therein by reason of the centrifugal force, occasioned by the rotation of the trunk; the lighter and smaller particles, in like manner, being deposited in B, and the earthy particles in C; the water

passing off through the discharge cock, H, which must be adjusted in accordance with the velocity of the trunk. When the receptacles are filled, or nearly so, the feeding is stopped, and their contents removed by the openings at **, which are furnished with shutters; the ores are then removed, assorted, and placed in bins, or other places of deposit.

The patentee claims, with respect to the first apparatus, the discharge of the ore and waste into a separate receptacle, over the margin of the sieve, by means of a skimmer-pipe and stream of water; and the uniform feeding of the apparatus, whereby the process is continuous; and further, the feeding pump, whereby the upward impulsion only at intervals ????????? effects the separation, liberations, and assorting, of the metallic and other particles from each other, in the compound ration of their specific gravities and bulk; and further, the means of regulating the quantity of discharge water. And, as regards the second apparatus described, he claims the application of centrifugal force, as an artificial state of gravitation, whereby it is made subservient to separate ores and other minerals.

Patent Office and Designs Registry, 210, Strand, May 30.

The Mining Journal

17th June 1848

Page 288 Col. 2

Accidents.

Barber's Field Colliery, Bilston – As G. Easthope was helping to load a skip, upwards of 2 tons of coal fell and covered his body – he suffered dreadfully, had his leg amputated, and ultimately died.

Bilston – At Mr. Baldwin's colliery, Francis Beckett attempted to descend the pit on the water barrel, in company with another young man; they proceeded steadily for about 80 yards, when a slight jerk of the chain caused the deceased to fall from the barrel into a swamp of water below, a distance of about 20 yards. An alarm was instantly given by the young man, and Beckett was shortly afterwards brought up the pit quite dead. As the engine was working steadily when it occurred, it is supposed the jerk was caused by one of the rivets of the chain catching the side of the pulley.

Carthew Mine, St. Austell – A miner accidentally had his arm broken while working here.

Tividale, near Dudley – B. Price and J. Jones were seriously injured by a quantity of rock falling upon them, while at work in Mr. Bradley's pits.

Rowley Regis – As J. Payne was finishing his work for the day, at the British Iron Company's Blackwaggon pits, a quantity of coal fell, and killed him.

Hateley Heath - As T. Hince and T. Wooley were commencing work, a quantity of coal fell; poor Hince, and Woolley has a narrow escape.

Wakefield – A serious accident occurred on Thursday week, at the Haigh Moor Pit, which is 270 yards deep. Four men were being raised, and when about 70 yards from the bottom, some accident happened to the winding gear, when they rapidly descended, counter-balanced only by the empty corves. On getting them out, one man was found to have his leg broken, and another his back much injured.

The Mining Journal

17th June 1848

Page 288 Col. 2

Death of James Watt..

We regret to learn, that James Watt, Esq., the last surviving son of the illustrious improver of the steam-engine, died at his house, Aston Hall, Staffordshire, on the 2nd inst. He was born on the 5th Feb., 1769, and was, therefore, in his 80th year. Inheriting a large share of the powerful intellect of his distinguished father, to the extension of whose fame he had, for the last 30 years, shown the most zealous and truly filial devotion, he united, to great sagacity and a masculine understanding, the varied acquirements and literary tastes of a well cultivated mind. His name will long be remembered in association with that of the late Mr. Boulton, as they were for nearly half a century successfully engaged in carrying out those inventions and improvements by which the genius of his father was immortalised. For the last eight years of his life he had comparatively retired from active business, and had devoted much time and attention to the improvement of his extensive estates in the counties of Radnor and Brecon, where his tenantry will have to lament the loss of a kind, energetic, and liberal landlord – Birmingham Journal.

The Mining Journal

17th June 1848

Page 288 Col. 2

Mining Industry in South Staffordshire

Whatever may be the recession in the price of iron, the manufacture of the article in this district is increasing with unexampled rapidity, and works whose magnitude not many years ago would have been deemed surprising, and a subject of general remark, are, with little notice, coming into operation, and increasing the make, or moulding it into mercantile form, everywhere around in an east, and south-east, and north-east direction. Not a long time ago the immediate vicinity of the town on the roads to Bilston and Willenhall was the more active scene of mining operations, and huge mounts of shale and other waste testified to the enormous extent of the excavations beneath; while, far too often, a yawning pit-mouth within a yard or two of the turnpike road, seemed almost purposely left unprotected, as a death-trap to the errant wayfarer, who might incautiously deviate thus little from the highway. Close to the town these indications of subterranean activity have become less common, and over some spots, exhausted of their coal and ironstone, the process of levelling has been carried into effect. Rows, indeed streets, of small houses, in many places, occupy the surface of the abandoned mines. A gradual exhaustion – rapid, perhaps, would be the correct epithet – of the mines abutting on the south-eastern extremity of the town (where the great fault of the South Staffordshire coalfield occurs in the course of its devious range) has taken place; and the necessity of proximity to their work, it may be observed, has led to the migration of a multitude of colliers and miners, formerly inhabiting a large part of Horsley Fields, Walsall Street, Bilston Street, and adjoining portions of the town. While mining operations, however, have thus receded from contiguity with Wolverhampton, their expansion in the direction of Willenhall has rendered the line of the road one continued scene of mining labour. Until within these four or five years, only about a mile from the town along the road was thus occupied. Now there is scarcely an interval; and it is not too much to say that a section of the country nearly two miles across, and six or seven miles in length, ranging, in fact, from Pelsall by Bloxwich, The New Invention, Willenhall, and on to Darlaston, is rapidly changing, or rather has changed, its character, and is yielding up its coal and ironstone in almost unimaginable abundance, to augment the supply of iron in the mineral market. New engine houses, at almost every hundred yards, put forth their giant arms, sucking up the earth-hidden water, and casting it forth in copious but intermittent streams; or slowly and diligently enwrap or unfold the long and heavy chain whose labour it is to drag to light the ponderous produce of the mine. New blast furnaces, too, send forth their glaring fire and sullen roar, lending a discordant bass to the occasional “scritch” of the pit wheel, and the constant clinking of the pit-chain, as it shivers along in its burdened course. Heaps of ashes, semi-mountains of “spoil” from the mines, with pools of stagnant water at their intersections, dense masses of smoke from the open coke fires, the engine houses, and the ironworks, and sulphurous streams of steaming water – each and all furnish additional proof that the drear Genius of the Mine has irrevocably claimed the district as his own. Just within and just without this range, a section, or a kind of boundary slip of country, exhibiting the “transition state,” helps to show the advance, or the inroad – whatever term may be preferred – of mining industry upon rural occupation.

Without, however, anticipating any further extension, going forward as it is – what is, and what must be the effect of those growing developments on the iron trade? The circle of its manufacture in this neighbourhood, so to speak, is continually and rapidly extending, and the same circumstances, in almost every other location, distinguish its position. The demand is great – inordinate; but what is the character of the means of supply, and how, or in what degree, are they resorted to or employed? Profits, when obtained, are manifestly re-invested in the business

in an extraordinary degree. No fact can be plainer, for new firms in the iron trade (of late years, at least) are unknown; old firms, or old establishments rather, have disappeared. Yet we have an almost unimaginable extension of the trade. The impetus of the railway schemes of 1845 and 1846 is still felt, and there has recently been some slight revival in railway demand. There is, too, a constant absorption of iron for railway purposes, independent of rails; and this amount, unless railways be thrown out of use, cannot recede, but must, as railways increase, increase with them. For shipbuilding, too, the demand is steadily advancing; while for other, and almost innumerable purposes, iron is fast superseding articles formerly used.

Improved mechanical arrangements, and increased metallurgical knowledge, have each aided in the production of a greater amount of iron from the ore, improved its quality, and diminished its cost – in fact, with not a very serious increase of expense, doubled the supply. Furnaces yielding 50 tons a week, not many years ago, now yield 80, 90, and 100 tons in the same time; and, within the recollection of not old persons, 19 of these furnaces, all countable from the Bilston Road, have been erected. From this fact, and from only a glance at the numerous mills and forges, erected within the same period, and within the same district, some notion of the mining industry of South Staffordshire may be obtained. Our sketch is interspersed with a few queries. They have not been unadvisedly put forth. In noticing the progress of the trade, we thought it not unserviceable to induce, if we could do so, some reflections as to its future position.

Wolverhampton Chronicle.