

No 3. 12.

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N.B. From Page 4. Various
Calculations.

J. D. 1820

1.

- January 1. The Engines gone well all day and till about 4 o'clock this afternoon when the little boiler was obliged to be unemployed again, she having got so very much tight, so that only one Engine is at work to night. At the top of the Works nothing done to day.
- " 2. This morning at about 11 o'clock got the little boiler to work again, since which time, both Engines have gone well, but how the water is standing cannot be said as no person has been down. At the 7th at work with the warm Water pumps.
- " 3. This morning at 8 o'clock obliged to pack the Air pump in the 53, but as the pipe up to the Cistern was loose, no water could be got from thence, wherefore obliged to fill the Condensing Cistern by carrying water into it, so that the Engines did not get to work until about 12 o'clock, since which they have both gone very well. The water has sunk 3 inches. But there is no man down the Appearances to day, they having been taken to bed to get the pump gear &c ready to fill the boiler, & at the Rotations no putting, as there was so few Coals given up by the heavy Very Cold weather to day.
- " 4. The Engines gone well to day & last night, the water having sunk 7 inches since last night, but no men down in Appearances as they are at the 7th, but the Rotation of Brownell are at work. To day took the pipe to the Cistern & separated & cleaned them, so that they are now in order. Very Cold weather. At the 7th lowered down the 11 inch pump & pump, as also took in the plug ports, & laid boxes to the Cisterns from the said pumps &c.
- " 5. Both Engines at work, the water sunk 2 inches, but no men down the Appearances they being at the 7th, at which Engine they have been busy partly with the necessary pump gear & boxes &c. as also with the Hudson's plug, the men could not work to day at the More Pillar & under Cylinder owing to the hard frost.
- " 6. To day being a holiday no work was done. The Engines gone all day & the water sunk 1 1/2 inches. Very Cold weather to day, wind N.E.

1820

- Sunday 7. This morning at 10 o'clock the bell went off, before men
 was got, they refusing to go at the beginning of morning
 to the rope being so stiff by the severe frost, it was not
 10 at night before they got to work again, so that the water
 has sunk nothing but the Association is at work to day
 At the 7th filled the inside of pistons with the plumb, as also
 filled in the boxes to the boilers from the warm water
 Cistern - the Masons could not work for the weather
- " 8. Both Engines have gone all day the water has sunk
 1 1/2 Inches. No coal works at the Association or Coal works
 owing to few coals being given up by the cold weather
 but at the New vessel they are at work at the 7th, making
 standing plains beside the warm water pump, in order
 to begin to pump water into boilers, finished the filling
 in the pistons, as also began to lay the plug floor, the
 Masons could not work for the hard frost
- " 9. Both Engines gone well the water has sunk 2 1/2 Inches, at
 the coal works nothing at the 7th set fast the foot Valve
 & door as also the Exhaustion Valve & boxes &c. Cold weather
- " 10. To day at 12 o'clock the little boiler was obliged to be unplugged
 getting so unright, so that only one Engine has been at work
 so that the water has not sunk any. No coal works at the
 Association to day owing to the ^{coal given up} ~~weather~~, At the 7th began this
 morning to pump water into the North & Middle boilers
 & at about 3 P.M. let the fire in order to get a little more
 warmth in the house for the men to handle their tools, Masons
 at work to day
- " 11. This morning the bell went off, as also one of the beams
 at the joint at Y which was obliged to be taken to the
 Shop to get repaired, which stopped the Engine until 8, & the
 little boiler got to work at 4 P.M. so that the water has
 sunk more than full pit at work. At 7th. Unrighted bumpy
 with filling in the axle to working gear, as also with waste
 boxes from the main Cistern, and began to pack the pistons
- " 12. At the Engine & Coal works nothing all being in order the
 water has sunk 5 Inches since yesterday night. At the 7th
 completed the packing of the pistons, Unrighted bumpy with the
 working gear of axle thro' the beam for warm water pump
 Very cold weather

13. At about 10 o'clock to day the blacks in the 17 inch did went off, & before mine was got, & the crane rope being so stiff owing to the hard frost, it was 12 o'clock before she got to work again, so that the water has sunk 6 inches since yesterday. At the 7th tried the joints with steam, which are all tight, but the Condenser is wrong, a little below the pipe leading to the cylinder. In changing the bucket to say it must be observed, that the bucket does was obliged to be loosened, to let the water out of the pump to get her out of the barrel.
14. This forenoon put in 2 new cranks in the main ship to the parallel motion of 53, so that the water rose & sunk during the time, but afterwards, sunk as much, since she got to work again. At the 7th busy with tapping the Condenser where she is wrong, as also with the working gear of Valves boxes & pistons. Also shipped a little of the pistons being it being rather too stiff.
15. To night the water is out of the low tank, but by it being such a long time up, there is so much sludge to clean up before they can get to work there, the Engines have gone well. At the 7th at work with working gear, Boxes, pistons & other small things, so that she will be ready to set to work on Monday, if the weather will continue anywhere moderate, but as yet it is as hard frost.
16. No work done at the Old Colliery to day, both the Engines have gone well & the water is of the Scaffold of the Appoint. At the 7th at work with the Valves rods belonging to working gear, & Waxes to cylinder lid. Cold weather.
17. At the Coalworks nothing, Men down cleaning the low level, but the water is not down at the Engines. At the 7th Pumped more water on the boilers, as also put the Valves rods & pack of Condensing Valve down, cylinder Lid after packing the pistons properly & making everything ready to set her going. Cold weather & hard frost.
18. At the Old works nothing, but owing to the much snow that has fallen during the night, amongst the Coals, so that only one Engine has been at work, but the water is down in the level. At the 7th tried to set the Engines to work which appears to go very well, but there is a great many holes in the Condensers, which they are to tap during the night, Hard frost with a little snow.
- That works -

1820

Janu. 19. At the Old Colliery nothing has occurred, except that the Water is not down in the low level, owing to the great boiler belonging the 53 being rather unright, & partly from the boiler being so mixed with snow, that only one Engine could be kept at work. At the 74 she did not go after pumping the broken fuel, she appears to go very well, but as yet is rather stiff, owing to the hard frost we have.

20. At the Old works nothing, the water is up in the Association owing to the great boiler of 53, being bad, so that only one Engine is at work. The 74 got fairly to work to day at 2 abl. P.M. & goes exceedingly well, but at about 5 she blew out the cement in one of the joints between the Condenser & Cylinders, which owing to the severe frost we have had has not been sufficiently dry, altho' day previous it was put together, which joint must be refilled again before she can get to work again, the water was 20 fathoms down. When the Engine came to work it was 16 fathoms 4 feet down from the boards at 1/2 of the Boilers. Back of 1/2 of 63.

74 76
Worked

21. At about 3 abl. this afternoon unplugged the great boiler to the 53, as she was continually getting so unright, so that only one Engine is at work, the water has rose 5 inches to day, but the 74 is at work. At the 74 busy filling the joints which are blown out, with cement again. The weight took out plan to day for the boilers to the 28, still hard frosty weathering.

28-

22. To day at about 11 obl. stop the 53 & set the 45 to work, as appears that she did not go continually, but at 6 abl. at night got her to work again, when the 45 was stop. At 2 P.M. the 17 foot boiler was plugged, but after the water had filled over the crown 2 times she was obliged to be unplugged 3 times before she got perfectly right, there being 13 holes in the crown. During the time the 53 stood, caulked the joints at the cylinder bottoms, as also that between that and the Condenser, which has been unright, thro' the shaking of the framing. The water stood this morning 18 inches above the waggon in the Association, it having rose 7 inches last night. Of course the 74 not at work. At the 74 drilling more bolt bolts in the cylinder bottom & condensing Valve last.

1820

5.

- January 23. This afternoon at 3 o'clock got the great boiler to the 53 to work, so that both Engines have been going since that time, but at 11 o'clock the water has sunk 2 inches. No work done to the 74 to day. At 11 o'clock last night the bucket went off to the 53 & which was not changed before 3 this morning.
- " 24. Both Engines have been at work, & the water has sunk 4 inches last night & 3 inches to day. But as yet the pit is not at work. At the 74 filling the joint to be run out with cement.
- " 25. At 3 o'clock to day the 17 inch bucket went off, & before could be raised it was at 11 this morning 9 o'clock before she got to work again, so that the water has only sunk 1/2 inch. The heavy belonging the Association employed to day in shooting the waggon way from that pit to the Engines. At the 74 busy drilling holes to make the condensing Valve spindle more safe.
- " 26. This morning packed the air bucket in the 53 since which both Engines have gone well & the water has sunk 4 1/2 inches last night & 30 inches to day. But the pit is not at work yet. At the 74 employed the same as yesterday. To day it was a complete thaw for the first time this winter.
- Weather " 27. Yesterday the weights returned to begin working again at the 28 inch Engine, where the thrust leg was raised to day. The bucket of the 53 went off this morning at 5, & the Engine got to work again at 7 A.M. the water has sunk 3 inches & the pit is at coal works to day. At the 74 inch Engine, busy drilling holes for the stirrup to the station the weight of the condensing Valve &c. Thick heavy weather. At the 28 began to take up beam & cylinder.
- " 28. This morning the water has during the night, sunk 5 inches & is now down & off the waggon way in the Association. At the 28 got the beam upon spring beams, & afterwards began with taking up the cylinder.
- " 29. This morning the water was down & out of the low level in the Association, at the coal works began the drift in the East. Mather gates of the Association. At one of changed the 17 inch bucket at the 53, where the rod was taken to the Smiths shop to get straightened, & the Engine got to work again at 3 in the morning. At the 74 began this morning to pump water in to the boilers & cylinders & got her to work at 9 at night. Fresh Weather all day which has continued ever since the 27th.

17th

- January 30 No work done at the Old Colliery, both Engines at work & the water down. At the 74 pumped water into the boiler & bison as also lapped the Condensing pipes.
- " 31 The water was down in the Sumps or Engines at a little before 12 o'clock to day. At the 28 the weights is busy with head. Stocks of hinging beam as also plumbing cylinder.
- fresh weather
February 1 At the 74 lapped the Injection back that being in right, and the Engine got to work again at work at 2 P.M.
2. At the Engines of Coalworks nothing new all being in order, in the Last Mothingake of Association parked in the Mothingake of level. — the weights is busy with the 28 inch Engine. At the 74 Packed the air bucket during the time she stood, lapping the blow pipe & screwing the Condensing Valve door.
- " 2. All the Old Colliery nothing new all being in order & the Water down. At the 74 took up the hogger pump & out of the hogger being burst in different parts of the frame, so the Engine is only keeping the water down at the bison. To day the foot Valve broke, but as there was a reserve, that was immediately put in place. — Weights at 28 —
- " 3. At the Old Colliery nothing all being in order & water down. Begun to transport the boiler for the 28 from the Shop to the Millpond. At the 74 got the hogger pump ready this morning at about 10 o'clock since which time the Engine has gone well & the water has been 2 fathoms down below the bison. Water has sunk at Boors Back 7 feet 6 ins. since the Engine came to work.
- the fair play work
B.B. 4. At the Old Colliery nothing, all being in order & water down. To day got the boiler for the 28 on the wall, but not fairly on its place. At the 74 changed the low 17 inch bucket the after noon or rather to night, she did not get to work before 10 at night. the water has sunk 23 inches at Boors Back.
- " 5. At the Old works the same as yesterday, & to night began to put in framings in that part of the Last Mothingake of the Association which is to be the Water level. At the 74 the stirrup belonging the 11 inch sett on ballance beam broke at about 6 to night, & before it was repaired it was 14 o'clock before she got work again, the water was 30 fathoms down & has sunk 15 inches to day at B.B. Got the boiler fairly on her seat to day at the 28. P.M.

1820

7.

- Gibb C. 6. At the Old Colliery no work done to day, & the water is down all the 74 packed the pistons, where the water was down 28 fathoms, at Brors Backe it has sunk 23 inches fresh weather since the 26th last month.
- " 7. At the Old Colly nothing has happened, the Engines being in order & the water down. This morning the boiler Smiths began to make a new 9¹/₂ foot boiler in reserve for the 53, as that which is in, is so very bad. The masons began also to make ready to begin to wall in the boiler at the 28, where the work is busy finishing the heading. Mild weather.
- New boiler
At the 74 the Mine broke on which the working rod or plug tree hinge broke in one of the cheeks, but no other damage done, which was immediately sent to the shop to get repaired (this happened at 9 o'clock at night). This morning stoppt the above Engines at 9 A.M. to tighten the foot Valve door, as also to serve over all the flange bolts in the joints of the 18 inch water pipe, when the Mine broke the water was 30¹/₂ fathoms down it has rose 15 inches at Brors Backe.
- " 8. At the Old work all as usual, water down, which appears to have taken off considerably since the 74 got to work, as the 45 did not get more than about 1¹/₂ hour in 24. Masons Wrights & boiler Smiths employed the same as yesterday. This morning at 9 o'clock got the 74 to work again, since which she has gone very well & to night the water is down 28 fathoms it has rose 15 inches at Brors Backe.
- " 9. At the Old work same as before, all being in order & water down which the 53 does easily alone. At the 74 the Engine has been going all day & the water is 35 fathoms down to night it has sunk 14 feet 10 inches at Brors Backe.
- " 10. This morning the key to the regulator at the 74 broke which stoppt the Engines a while, so that the water has not yet been down, but it has sunk 13 inches at Brors Backe. At the Old Colliery nothing water down, which is a great deal less than before. The Wrights at the 28 employed, but the masons could not get fresh.
- Masons
" 11. This morning at about 11 o'clock began to change the 17 inch boiler of black at the 53, which stoppt the Engines until 6 at night the Wrights employed at the 28 with bolting fast cylinder beam & gear. The 74 been work all day, but the water not down in the bottom yet, but very near, Engines Wrights employed putting the Shaft in order, also put on a new gimble the water has sunk 6 inches at Brors Backe.

- February 12. At the Old works nothing all being in order & water down. Wreights at work at the 28, but the masons cannot on account of the frosty weather, boiler Smiths been at work all the week with the new boiler.
- Water down at Ryd- This afternoon at about 2 o'clock the water was down in the bottom at Ryd for the first time since July 25th 1817. It had sunk at Broers Backs 8 $\frac{1}{2}$ inches to day.
- " 13. At the Old works no work done to day, the engine at work and the water down. At the 74 packed the air bucket, this afternoon, this forenoon busy in mailing on brattice & down the pit. Water sunk 3 inches at Broers Backs. This evening there was a party at home, who supped of meat made ready by the heat of the coals taken out of Ryd pit last night.
- Coal at Ryd- " 14. At the Old works nothing all being in order & water down. Stopt the 74 to tappet the communication pipes at the joints to the boilers they being so very rusty, by the cement having been froze before day, as also pulled in a main bunnings & collared the 18 inch pump. Water at B. Broers 4 $\frac{1}{2}$ inches.
- " 15. This afternoon obliged to change the bucket at the 53, which stopt her 2 hours. The Wreights employed at 28 but the masons cannot for frost. At the 74 changed the high 18 inch bucket, when she stopt at 5 P.M. & did not get to work until 12 at night owing to the uppermost spear breaking, they being so much twisted by ballance beam & corab rope, wherefore 2 plates were put on with rabbit bolts. The Water was down several times to day & when minuted it sunk when she went 10 strokes a minute & required 1 hour from she stopt (the water being down) to rise to the boiler tops.
- Water at Ryd- " 16. This afternoon at 4 o'clock obliged to change the bucket at the 53 again, it being off at the one side, she did not get to work before 11 owing to the corab rope springing, also put on hoops on the 3rd joint of said pump this forenoon, that continually breaking out. At this morning a ^{gold} ball belonging to that plate put on to the lower pipe of air pump at Helvingborg went out, so that she got too much water, & of course was stopt & righted & got to work again at 11, since which she has gone well, water down to night 29 fathoms, little done in the pit, owing to the same. Water sunk at B. B. 3 $\frac{1}{2}$ inches.

- February 17. At the Engines nothing the water being down, which the 53 keeps
 alone. At the Coalworks the Water has taken so much off in
 the dip of Restoration, that it were where it there to day to bail
 out the water is standing, in order to begin to haul coals there again.
 At about 2 o'clock P.M. it rose to the high water level, so that
 it run down again, & on examination find it is the crane that
 has cranked up the pillars the 9th holding in the Association
 thro' which the water runs, so that men are set to cut up the
 bottom there. At the 74 busy putting on collars at the
 low 11 2 inches pumps there being 3 working when she stoped.
 Water at Brooks Backs has sunk 2 feet 3 inches. Frost.
18. To night at Coal. begun to change her set of blocks at the 53, so that
 she did not get to work before near 11 o'clock last night. At the
 Coalworks, busy in cutting up bottom in the 9th holding of the
 Association, the water having rose 2 inches in the Restoration.
 To day was down & laid in the Preservation. Frost, 2 working to
 at the 28 but the masons cannot work for the weather. At
 the 74 begun this morning to cut the burning holes for the
 Scaffold in the shaft. Water sunk at B.B. 9 inches.
19. At the Engines nothing the water being down. At the Coalworks
 busy cutting up in the 9th holding in Association, the water
 has rose in the Restoration, so that they were obliged to draw
 with the Machine, to prevent it from hindring the working
 to day. At the 74 down cleaning the Lumps to day.
 Water sunk at B.B. nothing since yesterday.
20. To day no work done except men cutting up bottom in the holding
 of drawing water at the Restoration. At the Engines nothing
 at the 74 Mop had at 7 o'clock to night, as one of the King post braces
 was broke at one of the holes, which she had until before
 she got to work again. Frosty weather.
21. At the Engines nothing the 53 kept the water down herself.
 At the Coalworks busy as yesterday with cutting the bottom
 the water neither rose or sunk in the Restoration.
 At the 74 begun to change the 17 inch bucket of blocks this
 morning, at 8 o'clock when starting it, the short leg foot gave way
 which was obliged to be repaired before any more could be done
 it was 10 at night before she got to work again, it appeared that
 block falls where were on the one side of the bucket
 thro' the leather. At the 28 the masons could not work, owing
 to the mortar being so hard frozen the water at Brooks Backs
 has rose 2 feet 1 inch.

1820

February 22. At the 53 changed the bucket, which was found to be very fair worn all round on the side leather, the Engine was at work at about 8 A.M., having stood 2 hours. At the Coalworks, still busy in cutting up bottom in the 9th hole to East of Association, to get water way from the Restoration, where are still driving water with tubs during the night to keep it down. At the 74 changed the 11 inch bucket of belacks, when the Engine did stand by in the a/c from 6 to 11 P.M., water rose at Brors Baches 1 ft 6 in. At the 28-2 was employed in Wedging pipes on boiler. Masons cannot work on feet of the hard frosts.

" 23. At the 53 nothing has happened, the water being down with the one Engine alone. At the Coalworks still busy with cutting up level in the hole, but which will be completed by to night. 1st General talking to night among the heavy. At the 28 2nd weight, as also the Masons to day, being mild weather to day. Stopt the 74 at half past 9 this morning, to pack the Piston and Air bucket, also unplugged the North boiler to clean it of flies, when at the same time shifted the balance chain hanging on the y, from the Centre, to the 18 inch pump spread, to see if that will not hinder it from tripping so much towards the 11 inch. Work at 10 o'clock night, water rose at B.B. 10 inches.

Masons
at 28-A. Boiled
at 74-

" 24. This afternoon at 4 o'clock stopt to change the bucket at the 53, which stopt the Engine until 6. At the 74 unplugged both the South boilers at 4 o'clock, afterwards, shortened the inside Main Chasing, that she may get a longer stroke, as she cannot come further out of the house on feet of the sides laying over the Shaft, also tightened 3 bolt heads in the piston, as other sundry trifling things added which got to work between 5 & 6, with the 1st unplugged boiler alone, in order to fill the other two herself. This being the day after talking there was so few heavy carries to the Restoration that no pulling was ordered, but water drawn from the Waste as there is yet no opening between the pits. The Masons at the 28 to day, working in boiler, it being mild weather, of 2 weights with pipes of 2 pairs at same place.

Boilers all
74-

Restoration

" 25. At the 53 the Engine weights were down overlooking the 17 inch pumps, when the joint opposite the Old Colliery had again got unright, which was repaired, so that the water has been down several times. At the Coalworks nothing except still not having got a perfect water course between Association & 2nd owing to loose bringing the Great Throat over the Dyke to East of Union by crushing the timber in high level, where they have to lay on the best small timber in this morning. At the 74 got the boiler at 11 A.M., & the South at 7 P.M., so that she is going very well to night, but the water has rose 10 ft 8 in since 23rd. Masons at the 28 part of the day being mild.

Thrust
in 119-

1820

11.

- Febry 26. At the Coal work, all as yesterday, still have not got any further communication of Water courses between the two shafts, At the Old Engines nothing all being in order. At the 28 the new night pump is wedging & bolting different than. At the Shop binding has finished the Valves & handles to do. Has not could not work for the
27. At Engines or Coal works nothing done, except to men down in the Washes between the Association of Restoration, where there is as yet no perfect water courses. At the 7th nothing has been done except pumping all the 24 hours
28. At the 53 nothing all being in order, water down, at the Coal work still busy in getting the Old timbering in drift out and new put in. At the 28 busy with the cylinder top & bottom for of Masons at the Boiled wall. At the 7th the water was down at 4 o'clock, when the sinkers went down to cut in the burning hole for Scaffold. Water at Bores Backs over since the 25th 10 ft 4 in.
29. At the 53 changed the bucket at 9 o'clock, which kept the Engine until near 11. At the Coal work the same as yesterday, still as yet having got no fair communication for Water Way between the pits. At the 28 the weights both the low side pipes from the Shop, to the Engines, as also begun to put the Condensing Cistern together. the Masons at the Boiled wall - also 2 men began to dress bones in the Old quarry for the 53 at 1/2 Water sunk at B, B, 13 inches. At the 7th the water was down until 5 this morning when the Chain to low 11 inch pump broke, when the water was not got down again before 6 o'clock, when the same broke a 2^d time, by which the Engine stood without water.

- March 1. To day being such very boisterous weather with snow, the Masons or Weights or Stone Cutters could be at work, but Holmsted was at home making a model for the feed pipes to the 28 inch. At the 53 obliged to unplug the little boiler, it having begun to run so much at 12 to day. At the 7th put on a new hogger on the 17 inch shaft, as also wedged under the bottom of the 18 inch shaft, put on screw hoops round the joint of same sett. Water at B, B, sunk 13 inches.
2. At the Old Colliery nothing all as usual, except that the little boiler is not too yet. The Mothergates of level drift in the Association going very well, but as yet have not got thro' to the Restoration. At the 28 put on the cylinder bottom for good, & busy with the Condensing Cistern. At Shop put on the facing for the foot Valve for said Engine. At the 7th got the water down last night at 10 o'clock, when a bolt belonging the Weight of Condensing Valve broke, when the water rose again when it was was 5 A.M. before down again, when they got down today in the burning of Scaffold was finished at 2 P.M. when they began to hear Coal in the drift going to the Charlotte Hill, by Bergmann, ^{works} had 16 Coves of Coal in the next 2 shifts. The Wash had the 3^d between 10 & 2.

1820

- March 3. This morning at 6 o'clock got the little boiler up at the 53, and at about 7 am plugged the 17 foot belonging the 45, in order to clean it & flush. Still not as yet got a fair Water Course open between the Association & Restoration, altho ^{they} there are in with the little 27 [] liberating in the 8 fathoms. At the 28 Wrights busy putting the boiler together, & also hung the lower part of the side pipe to make the holes in flange for the model of which several are drilled. At the 74 gone well all day & the men at Coals work, there having been taken up since they began 37 courses of Coals - Masons at work with driving stones to the boiler wall from quarry as the frost prevents them from walling - Water Burns at 13, 13, 6 inches - Florin began to dress the shafts to the skid at the shaft at Ryd.
- " 4. At the Old Colliery nothing all being in order except that there is as yet not a fair Water Course between the Association & Restoration pit, altho they have advanced near about 8 feet. At the Engine all in order, busy filling the 17 foot boiler to the 45 as fast as possible & begun to launch the boiler bottom of the new 9 1/2 foot boiler. At the 28 the Masons driving stones, the Wrights putting down the boiler &c. At the 74 got up 4 courses of Coals. Water at Brors Backs Burns 4 inches.
- " 5. At the Old Colliery nothing, the water being down, and this afternoon got a greater opening between the Association & Restoration so that to night the water is out of the workings there, but as yet there must be more framing put in for security. At the 74 stop working in the drift this morning at 6 o'clock. At 10 stop the Engine to change the 17 inch wheels, after which she got to work again at 12, since which she has gone very well.
- " 6. At the Old works nothing, except that the men obliged to come out of the level this morning, owing to the water rising so fast from the Workings of Restoration. At the Engine is in order it will soon be out again. At the 28 the Wrights busy in putting fast the pillar bolts round Cylinders & making stairs. At the 74 the Stinsons which the Air bucket hinged on broke, on the one leg, the reserve one was put on in its place, during this period looked after & packed the Air bucket also took off the foot Valve door & put it in order again, as well as put another drawing above the Air pump in the bottom &c. Shifted down the high side of working piece, that being rather too far up, so that she did not get to work before near 8 o'clock at night. Water rose to day at Brors Backs 2 feet.

Coals 74
inCaulking
new boiler
walling

Drift

- March. 7. At the Old Colliery nothing has occurred all being in order & the water down, still busy putting in more framing in the high level. The men got into the level again this morning, as mentioned yesterday. At the 28 the men set off a light, & 1 man employed in drilling holes inside pipes (as lowered & examined) to fix the cylinder bottoms & making stairs. The masons began to pave the floor of the new shop at 12. At the Old Shop cast on of the Steam Valves for 28 & one fire with Chains & Pumps to 2. At the 7th got the water ^{near} down this morning when at 6 o'clock one of the links to the inside middle chain of pump, which kept her about 7/4 hour, so that they did not get into the bottom before near 5 P.M. since which they have been down, water rose at 11, 12, 3 feet.
- " 8. At the Old Work the same as yesterday, at the boiler shop put up the first flue plate of the ~~new~~ boiler, in the Smith shop making sundry bolts, &c. At the 28 put on the cylinder bottoms with the bolts, ready lapped, making stairs. The masons at the new shop. At the 7th the water got up again to day owing to a bolt in the boiler breaking, & did not get down again before 8 at night, & was now down - Water sunk at 11, 12, 3, 5 feet.
- " 9. At the Coal works nothing all being in order & the water down to day at 12 o'clock unplugged the 17 feet boiler to 5' 3" in order to clean her. At the 28, 2 Wrights & 1 labourer busy with side pipes & sundry other things. The masons at the new shop. At the 7th at about half past 10 o'clock last night, a feed broke out in the drift going towards the Charlotte Pit, with such a force as to carry the man N° 64, who with all the stones & his feet into the shaft, fortunately enough it was, that the horse was in the bottom, so that he got up in the dark, & in any case he would have been drowned, for in the course of 2 hours the water rose 10 fathoms up the shaft, altho the Engine was going about 14 strokes a minute. Also put down a small cistern beside the 18 inch landing box for the cold water pump to stand in. Water sunk at 11, 12, 1, 6 2/3.
- " 10. To night at 10 got the 17 feet boiler too, the water is down, at the Coal works, still in the drift or level. At the 28 the same men employed, at the Old Shop, begun with the facing pipes, which came out yesterday &c. At the 7th one of the links to north inside chain of pump this morning, as also a big nut the foot Valves door & got her to work again at 8 A.M. the water at 11, 12, sunk 8 1/2

Shops

Boiler

Feeder at
ryd

1820

- March 11. All the coalwork, got so far done with the discharging of the Old High Water level between the Association & Restoration, that there is no more danger of it being stopped. All the Engines nothing, the 53 keeping the water down herself. At the 28 put fast the side pipes for good, the bolts with tapping &c. At the Smithshop made a new leg to the Stems for the 74, as also putting the new pipes for the Air pump for the 28.
- O. 12. At the 53 the top of the joint gave away in the Head, by the 2 bolts springing & the other 3 going thro' or rather splitting the Head, but fortunately no damage was done, altho' it kept her from 4 this morning until 2 this afternoon, before she got to work again, but before the latter the Piston Shanks of the 45 broke as well as the Stays, but did no other damage, & which was got ready at the Shop by 9 at night, it was not put in on acct of their being no hurry therefore, as the water has been off. At the 74 stopped this morning at 8 a.m. to pack the piston, as also tightened the uppermost joint of the 18 Inch pump, water rose at B, B, 4 inches.
- " 13. At the Old Colliery nothing, all being in order, the water is down, but it must be observed that the cylinder bottom on with either cement or Whiskel, before she can go to work any. At the 28 two men & 2 assistants busy with putting a back behind the cylinder to keep her steady, as also putting a piece of Oak at the top End of the Beam head, the old part being not away. At the 74 it was observed about 8 this morning, that the offtake joint at the 45 belonging to the 18 Inch sett was broke, wherefore it was taken off, where the high part was broke at the top of the hole, & the low part at the bottom of the Knob, so that both were sent to the Shop, & during the time they were in repairing, changed the high 11 Inch bucket & blades, which were both off, and in taking up the Spears found one of the offtake joints broke, which was also obliged to be sent to the Shop to be repaired, so that the Engine is standing, the Water has rose at B, B, 3 ft 10 inches.
- " 14. At the coalwork began to bail water out of the dip to the West of the Restoration, in order to begin to work Coals there. At the Engines obliged to employ the little boiler at 10 a.m. last night, it getting so unsteady, so that the Engine has only been going with the 2-17 foot boiler, but at 11 a.m. last night (at 3 this morning the West beam chain broke at the 53)

1820

15

obliged to stop & change the bucket & black, so that she did not get to work again before 3 this morning.

At the 28 the menighs employed as yesterday, at the mill shop supply with food Valve & passings &c to said Engine. This morning got the 74 to work at 5 o'clock, since which time she has gone very well, but still the water will not sink below 23 fathoms. At 10, 11, it has rose 3 foot 7 inches - last night it has snowed very hard, but is fresh weather to day.

15. At the coal works, begun to work coals in the dip of the restoration with 5 men, the water having taken off there. At the Engine the Blacksmiths got done with the little boiler to night, when water was put into it, and the boiler Smiths begun to drill holes in cylinder bottom to put on the plate before mentioned. At about 4 o'clock P.M., the condensing Valve tap at the 74 broke, & there being none in reserve Walter was ordered to go to town early in the morning to get 2 new lids cast, as fast as possible, during this time she will have to stand, unplugged the middle boiler she being so unright. At 10, 11, the water had sunk this morning 1 foot 7 inches. When the engine stopped 8 inches more - Mild Weather. Masons at the 28

to day, having finished the shop at Ryd. Wrights there as yesterday.

16. To day at 12 o'clock the off take joint at bottom had broke in the 17 inch pump at the 53, when the engine broke into the house very hard, but fortunately did no damage, and at about 3 P.M., the bucket was got up by the crook, which was only hanging on the outermost point of the crook, but before all was got in order.

17. it was 5 this morning before the engine got to work again, since which time she has gone very well. At the Association

pit no putting to day the water being so high in shaft, but the most of hammers down curving. Boiler Smiths employed at the 45 inch cylinder bottom. At the 28, Holmstedt & labourers putting on the high side pipe, Masons finished walling round the boiler there, Hultman & Geronias high miring

the shaft at same place. At the 74 got to work again to night at 8 o'clock with the one boiler to fill the other. In the dip of the restoration the water begins to run harder, owing to Ryd standing. At 10, 11, it has rose 1 foot 8 inches.

28th

Apcault

28th

74th

1820

March 18. At the Coalworks nothing new, at the Association pit no
works today, the water standing 40 inches above the Wagon
Sett out the last lining in N. 16 in the high seam, in order
to set out a new pit to the dip; but it was afterwards found
best to lay a Scaffold in the Union at the foot of this line-
bearing of Drives a Stone drift, to cut the cut the seam (coal).
At the 28 Holmsted's & Manns busy with the high side
pipes, & the masons got finished the watering of the
boiler today. At the 74 nothing has happened, the
Engine going well, but still the water will not sink.
Water at B, B, has sunk 8 1/2 inches.

" C. 19. At the Coalworks nothing, the water having sunk 2 inches
perpendicular in the Association pit. At the 74 nothing has
happened, the water having gone very well, but still the water will not sink,
but at B, B, it has sunk 7 ft 7 inches.

" 20. Today at 10 o'clock got the 45 to work, since which time both Engines
has gone well, & the water has sunk 3 inches last night.
Boiler at 74. Loaded to 10 1/2 times. Last night it had snowed so much that the
Wagon way was to be shoveled, and as they could not work
in the Association, that men were sent there to
clean it.

" 21. At the 74 fixed the 2 of Condensing
Valve to be broke, & here being no reserve, she stood
all day from 3 this morning, during which time the
Boiler at 74. South & North boilers, where employed, the 53 & 45
has gone well, & the water has sunk 6 inches since
yesterday. The Association been at work yesterday &
today. Water at B, B, now 15 1/2 inches.
Pit at Works

" 22. At the Coalworks nothing all being in order & the water
out of the low level. Both 53 & 45 have gone well, so that the
water must have sunk in the Washer. At the 28 Holmsted
Mann & Lindberg busy partly with Washer boxes &c.
At the 74 got the Engine to work at 10 o'clock (after standing
36 hours) the water had rose to 9 ft 5 ft 10 in in the pit
again, the Condensing Valve to be broke again, & the
Piston being also bad, she did not get to work with 3 boilers.

" 23. before 5 this morning, when the water was down 6 ft 10 in
4 ft 6 inches from Saddle boards, at Bross Basin it had
sunk 8 ft 3 1/2 since 21st. At the Coalworks busy with the
Scaffold in Union at high seam, 53 & 45 gone well, going
down yesterday night among the black doos in the 17. 2 bolts having
Union. Spring - Holmsted &c. making boxes at the 28 - At the
Shop ready to put out pumps & Condensers together.

1820

17

March 24. At the Old Colliery nothing has occurred, all being in order but the water is not down in level or Engines. At the 28 - Holmstedt & Mansbrey making Washer boxes, at the shops making reserve black do or bolts, as also scouring the Education Valve together for the 28. At the 74 nothing has happened she having gone all day, but the water is no further down, At B, B, it has sunk 7 feet. A great deal of snow fell during the night, so that there is a deeping to day.

" 25. Last night changed the 17 inch bucket, by which she stood 2 hours, this being a holiday no work done, the 74 gone well, the water at B, B, has sunk 8 inches.

" 26. At the Engines & Coalworks nothing, at the latter place, as well as Shops, & Masons &c. not being at work. At the 74 gone well. Water at B, B, sunk to this morning 9 inches & during to day 7 inches more, this making it 7 inches further down than before (or 10 feet 2 feet) from top level, And at the 74 Engine 5 foot 6 inches further down, than before, since the feed was got.

By B, B,

" 27. At the 45, obliged to unplug the boiler to 45, the feeding pipe having fallen down in the boiler, so that, that Engine has been standing all day, At the Coalworks the men were obliged to come out of the level this afternoon for water. At the 28, The Air pump & Condenser was lowered down into the Cisterns, but not put fast for good. At the Smiths shop busy with fitting Education Valve & begun to make new Thrups for parallel motions for said, the old ones having to be lengthened near 14 inches, and also put on feeding bowl. Water at B, B, rose 5 feet this morning & during the day 3 foot more.

" 28. The boiler to the 45 came to work, at about 5 P.M., when the water stood about 4 feet over / not over / above the joint. At about 5 this afternoon got the 17 foot boiler belonging the 45 inch Engine to work, during that the rights last past, the great boiler belonging the 53 has been several times unright, but the Engine has not stood. About the 74 at 11. P.M., the Condensing Valve being broken, but at 2 got her to work again, when she came to work at 2, the water was down 23 feet 5 inches at B, B,

March 29. At the Old Colliery nothing all is in order, except that the little boiler to 53 3/4 h Engines got unright during the night, but which did not hinder her from working. At the 28 Hobscock was at home making Model to the blow pipes & no other workmen there. - Begun the drift to follow the Dyke in the Association.

Drift in
Association

" 30. To day was down lining in the Stone drift of Association, where they have got some appearance of the Dyke Yesterday Hans Lund, a visit began to make a gain for the Union for 20 of P.M. At the 53 3/4 h nothing all being in order. At the 74 stop it is past 1 P.M. in order to take or unplug the middle boiler, in which it was found that there was so many of the put on plates loose that it required to be repaired, but at 5 P.M. the Engine was at work.

Gain to
Union

31. At the 74 began to pump water into the South & middle bores, belonging to said Engines, and at 12.30 day the Engine was at work with 2 Boilers, but at 2 P.M. stop her again to change the 18 new bucket of Chack, but the Engine got to work again at 6 o'clock afternoon. At the Old Colliery, this being a holiday no work done there.

18 H pumps

April 1. At the Old Colliery they have changed the 17 new bucket as also the air bucket belonging the 53 boiler Engines all work and the water down. At the 74 nothing has occurred the Engine gone well & the water down 23 fathoms fast at by of 18 Bores Bores. At the 28 3/4 h Engine busy putting the side pipe together for good - At the Smiths 2 men busy securing the Reduction Valve & facing together.

" 2. No work done at the Old Colliery to day, this being Easter Sunday, but the 74 stop this morning at 7 o'clock to put in a link in the outside South Beam Chain, instead of that Spring. Water was down when she stop 23 f. 1/2 & when got to work again at 8 P.M. the water only stood 16 fathoms & 3/4 inches down from saddle boards.

" 3. This morning changed the 17 new bucket & Chack at the 53, and got her to work again about 11 A.M. but the pumps are not quite right. This being a holiday no other work except at the Engines as mentioned above. At the 74 gone well all day but the water no further down than 23 fathoms.

1820.

19

- April 4. The 53 Inch Engine is so unright, that she will not go with her own boilers, but obliged to have the 17 foot boiler belonging the 45 Inch Engine to assistance. The 74 gave all day of water down 23 fms 2 ft 9 inches. At the 28 Inch Engine took the air pump back to the Shop to get the Education pipe fitter on &c.
- " 5. At Coalworks nothing has occurred, all being in order. the 53 is still so unright that she will not go with any force without all the 3 boilers, so that the water is rising in the dip of the Association pit shaft. At the Smiths shop busy with Education pipe & parallel motion to the 28 Inch Engine. No weights there to day. The 74 gave well all day but the water is no further down than yesterday viz 23 fath: 2 ft 9 inches from saddle boards.
- " 6. To day was down & dried the drifts both in the Union & Association pits, where the Coal works is in order. The 53 still will not go with her own boilers, wherefore she is obliged to have all the 3, and still the water sinks very little on her. The 74 gave all day of water 24 fms down.
- " 7. To day at about 12 obligate both engines at the Old Colliery to work, if the water has sunk 2 inches this afternoon in the Washer. At about 3 P.M., the Beam Gudgeons belonging the 74 was observed to be broken in the middle of the plate, wherefore the Engine was stoppt. to avoid any further risk of damage being done, where the weights begun to take it out. the water was nearly 24 fathoms down. At the Smiths shop they are at work with the parallel motion to the 28 Engine.
- " 8. At the Old Colliery nothing all being in order, At the Smiths shop busy with parallel motion &c to the 28 Inch Engine. At the 74 unblagg'd the saddle boiler, it being rather foul, as also took the Beam in some few feet in to the house to get in the new gudgeons. the water has rose during these 3 days from 24 fath: to within 9 fms 4 ft of the top bulb of at Boors Backe yesterday morning 7 ft 7 inches.
- " 9. At the Old works nothing, the 53 being the same as before. At the 74 changed 11 inch bucket (high), also loos'd the stirrups on the beam in order to get the new gudgeon in. Water rose within 9 fath: 2 inch of top bulb of at 13, 13, 5 feet 1 inch.

Mr B.
buriedWater at
Eye of B. B.

April 10. At the Old Colliery nothing all is in order, but the
 Water is not out of the Washe in N° 19, at the 53 nothing
 Marked out particular, but that the pumps are troublesome to keep
 the ground tight. At the 74, cleaned the 74 South boiler & flues, as also
 for the New Engine screwed the shirups loose on the main beam &c, as also begun
 at the Charlotte to alter the warm water boiler, it being rather too large
 at Ryd Water at B.B. nothing

" 11. The Old Engine gone well the water has sunk 4 inches in the
 Washe. At the 74 left the feed pipe to the South
 Boiler which had fallen down in the night, cleaned
 the middle & North boiler, wedged the inside Beam
 head.

12 Last Night changed the bucket at the 53, water
 the same as yesterday. At the 74 the wrights busy
 cutting a hole for the Gudgeon & doing other work
 inside the house. At the 28 inch Engine hung up the
 Beam chains.

" 13 At The old Colliery the water has risen in the associa-
 tion owing to the pumps in the 53 being untight,
 both Engines at work. At the 74 the wrights still
 at work with the Beam and Condenser as well as
 other work inside. Obligated to take Holmstedt from
 the 28, as Andreas Wywidson is still sick, & Helsing
 wife and children are so ill that he cannot attend
 his work. Water at B.B. risen the last 24 hours $2\frac{1}{2}$ feet

" 14 Changed the bucket this morning at the 53. Two wrights
 busy with a New gin for the Union to work in the high
 steam. At the 74 got the Gudgeon put in, put on a
 new foot door, the old one being broken, also tightened
 the injection cock. In 161 fathoms the water at B. Backe
 has risen 3 fathoms & 10 inches, and consequently from the
 top crib 7 fath. 2 feet 7 inches.

" 15 The pumps having for some time been untight at the
 53 inch Engine, the wrights went down to wedge the
 3rd joint, from day, when unfortunately Sjoberg slip
 his hold, while screwing the bolts, & fell from the
 3rd bunting into the slump, and was killed, there
 was then 8 fathom of water in the shaft, consequently
 we were obliged to have the dam put down, before
 the water could be taken down to get him up, but
 to all appearance he was dead ~~before~~ before he

Sjoberg

fell into the water, as his skull was fractured, his temple cut, and a large hole in his leg, apparently from his having fallen against one of the buntings. His loss is the more felt, as he was one of the most useful men we had, particularly at the Engines. Nothing done at the 28 as Holmstedt is still at the 7 $\frac{1}{4}$ where they are busy with the beam. Water at B.B. rose 6 inches.

- Q April 16 Changed the bucket at the 45 inch Engine. Hauled the beam at the 7 $\frac{1}{4}$ into her seat, & screwed fast the stirrups that were taken off for the Gudgeon. At B.B. the water neither risen or sunk since yesterday.
- " " 17 At the old colliery nothing new. Packed the 7 $\frac{1}{2}$ inch Piston & Air bucket, put the Condensing valve in & the Door on.
- " " 18 Nothing new at the old Colliery. Raised the gun at the Union. At 9 this morning the 7 $\frac{1}{4}$ got to work with one boiler to fill the other two, consequently went very slow; to night she is at work with 2, which she has been most part of the afternoon. During the time she has stood, viz: 11 Days 18 hours the water has risen to within 7 fath: 2 feet from the top crib in the 7 $\frac{1}{4}$. At Brors Backe from the same place it stood 7 fath: 1 ft 7 inches. Sjöberg was buried today.
- " " 19 Notwithstanding the 7 $\frac{1}{4}$ has gone slow having to clean the North boiler, which did not work before today at 11 Am. Yet the water at B.B. sunk 5 feet 3 inches. Changed the bucket in the 17 inch sett at the old Colliery. In seeking for the high seam in the Union they got an unadvised Dyke running nearly boardways course about 2 fathom from the shaft on the rise side of which they met a black streamer with grey post band which rises very rapidly & which they are to follow till they meet the Coal.

1820.

- April 20 Changed the bucket at the 53. Nothing particular at the Colliery. The 74 has gone uninterrupted 11 strokes per Minute, but the water is not further down than 21 fathom 1 foot.
- " " 21 Nothing new at the old Colliery, both Engines going well. The 74 goes well. & the water at B.B. has sunk 2 feet 10 in. since yesterday. —
- " " 22 Tightening the 14 inch pumps at the 45. Otherwise nothing new. The 74 goes well. My father lined at bank from the Restoration to face of Stone Drift, as I was taken sick when up in the wood.
- " " 23 Got the 14 inch pumps tightened. The ⁷⁴ Engine stopt at 2 to ~~lap~~ the warm water bucket & got to work at 3. Water down to 22 fathoms.
- " " 24 Cleaned the little boiler at the 53. Also unplugged the South boiler at the 74, the feed pipe being untight. This Engine got to work at a little after 3 o'clock. The water at B.B. has risen 1 foot 7 inches. Fine weather (the 2^d one).
- " " 25 A Spear having broken at the 53, changed the bucket 53 inch Engine & clack, which stopt the Engine from 6 A.M. to 3 P.M. before a new Spear was put down. Water at Ryd down to 22 fa: 8 inch; at B.B. sunk 2 inches.
- " " 26 Begin to lay the ground for the new 53 at Ryd. At the 74 nothing the water down 22 fathom and at B.B. has sunk 2 feet 1 inch since yesterday. At the old Colliery nothing worth mentioning.
- " " 27 Water at B.B. has sunk 1 foot 1 inch. At the 74 the Engine was stopt 1/4 of an hour the ~~XX~~ Injection Cock being gagged during which time the water rose 4 fathoms. To day put the air pump & Condensor together at the 28. Changed the 14 inch bucket in the 45 inch Engine.
- " " 28 In changing the 14 inch clack this morning at the 45 the Crab rope sprung & also the Crab itself as it was rotten, & therefore it could not be changed before a new Crab was made. At 10 last night the

1820.

23.

- April 28 Stirrup of the high 11 inch pump at the 74 broke
In the Drift from the Union in seeking for the high
Seam, found the same by boring in the roof 9 feet
up, therefore the scaffold was ordered to be shifted
so much higher up in the shaft. At the other pits
nothing new.
- " 29 At the 53 changed the Bucket & put new pans into
the stirrups in the parallel motion. Engine at Ryd
gone all day & water down 22 fath. Coal work nothing
- " 30 At the old Colliery, as well as at Ryd, all gone well.
water at the latter down to 22 fathom.
- May 1 Changed the 14 inch bucket & clack at the old Colliery
& put down the same bucket. Nothing new at Ryd.
- " 2 At the 53 got the water down in the bottom at 4 A.M.
and made ready to clean the sump; but as the bucket
went off at 10 o'clock which was obliged to be changed;
and as the undermost spear was not good, a new
one was put in, which stoppt the Engine till 6 at night.
At the 74 stoppt the Engine at 1/2 past 8 A.M. The water was
down 22 1/2 fath. One of the joints of the high 11 inch pump
spears being broken During this ^{time} packed the Air bucket
& piston
- " 3 Nothing new at the Colliery - Changed the 14 inch
bucket & tightened the 14 inch pumps. 2 Wrights &
2 labourers employed at the 28 tightening the Condenser
valve &c. At the 74 taken up the broken spear,
tightened the warm water cistern, &c. &c. and set the
Engine to work at 3/4 past 7 P.M. the water was
9 fath. 1 ft 6 turn down.
- " 4 At the 74 the water down 21 fathom 1 foot
Took off the screw hoops of the 4th & 5th joints at the
the 53 & lapt them anew. Since the 2nd the 53 has
kept the water down at the old Colliery.
- " 5 At the 53 had the 3rd screw hoop from the bottom
off, & lapt it. This Engine still keeps the water down
At the 28 the wrights busy making a Crane & boring
the new flange. The 74 gone well water 20 fath 4 feet
down

1820

May 6 At the 53 putting the shaft in order, several deals having given way ~~at the 53~~ in the timbering, as well as the buntings. Changed the $1\frac{1}{4}$ inch bucket at Ryd, at one o'clock this afternoon, ^{when} the water was down to 21 fath: 1 foot.

" 7 Water down at Ryd 21 fath: 4 feet. Cleaned the 53 & large boiler at the old Colliery.

" 8 Yesterday and to day cleaned the Boiler of the 15 inch Engine. At 1 this ~~afternoon~~ ^{morning} the spear joint in the high 11 inch sett at Ryd broke (11 fath: 4 feet) at some time changed the 11 & 13 inch buckets & when the Engine was set agoing at 1 P.M. the water was 10 fath: 3 feet down. 3 Timbermen employed at the 28.

" 9 The Engines at the old Colliery gone well, busy putting the Engine pit in order. At the 7th the water down to 21 fath: 2 ft. 9 inches. Set fast the communication pipe at the 28.

" 10 Water down at Ryd 21 fath: 3 $\frac{1}{2}$ feet. At the 28 busy with the parallel motion. Nothing new at the old Colliery.

" 11 The wrights at work at the 28 with the communication pipe &c. No work done at the Colliery. At Ryd Water down at 6 A.M: 22 fath: at $\frac{1}{4}$ past 3 the 4 broke in the 11 inch sett which stoppt the Engine until 9 P.M. under this time also changed the Condensor Valve.

" 12 When the water was down to 21 fath: 4 ft. at 3 P.M. the Engine at Ryd was stoppt to pack the piston, & repair the blow pipe &c. she stood 3 hours. At the 28 busy with the plug tree. Putting up the pulley frames at the Union, that not having been done on Wednesday, as the men were taken to the Canal which had fallen in on Tuesday night beside the Ropery, & which stoppt the want of stones.

1820.

25.

- May 13 Done in the shaft at the 53 & got 12 Corves of rubbish out ^{of the sump} in the afternoon. At the 28 set up the plug posts, set in the the feeding valve, & begun with the plug tree; 2 Masons busy making an arch over the blow pipe.
- " O. 14 packed the piston, caulked the air joint & put a new box on the outside of the pump: the water down at the old Colliery. At the 7/4 inch Engine unplugged the North Boiler. At 6 A.M. the water was down to 22 fathoms. 1 fath. —
- " 15 Set the North boiler to at 11 this evening at the 7/4 got the 53 to work this morning at 3 o'clock; and the water down at 5 in the afternoon.
- " 16 Unplugged the middle boiler at 1 P.M. which was cleaned & set to work at 10 A.M. also unplugged the South Boiler of the 7/4 at 12 Midnight. Cleaned the sump this forenoon at the 53 & changed the bucket at the same engine this afternoon.
- " 17 At 1 o'clock this afternoon the South boiler was set to work at the 7/4 & tightened the high sett. Busy with the sump at the 53.
- " 18 Still at work with the sump at the 53. — At the 7/4 the water down to 22 fa. 1 fath.
- " 19 Dito - Dito 22 fa. 5 feet this morning at 6. At the old Colliery nothing new except busy with the sump at No. 9.
- " 20 Down lining to the face of the stone drift in the Restoration, which was 44 fathom foot past the Duke. Got finished with the sump at the 53 after taking up 45 Corves of shale &c. &c. At the 7/4 water down to 22 fathoms.
- " O. 21 Nothing new at the Colliery or at Ryd, the water down at the latter place 22 fa. 3 feet. The wrights have this last week at the 28 set up the plug posts & plug tree, also packed clay round the Cistern at the same Engine.

1820

- June 24. To day arrived home from Stockholm, for which place I set off on the 22^d last month, during this time it has been fine weather.
- " 25. This evening Bergs Rädet Broking, with Officer Director, of Uhlr, arrived in order to investigate the particulars relative to the feed at Syd. The Engines at Old Collz going well & water down. The 74 gone well & water down 24 fathoms.
- " 26. Old Colliery nothing all being in order & water down. Stopt the 74 this afternoon at 3⁵ minutes past 5 P.M., when the water was down 23 f^m 3 f^t 6 In^{ch}; & during the first 16 minutes it rose to the height for depth from saddle boards to 20 f^m 3 - 6, at 1 hour after she had stopt 17 f^m 2 f^t 9 - perpendicular height, & at 12 hours 12 f^m 4 In^{ch} & in 24 hours time 12 fathoms 5 f^t 6 In^{ch} perpendicular height from where it was when she stopt.
- Water at Syd 13, 13,
- At Brors Backe it was down at 10 minutes past 5 P.M., 10 f^m 3 f^t 10 1/2 In^{ch} from top Crib. 3 hours after the 74 was stopt it rose 3 In^{ch} - In 12 hours 4 f^t 8 1/2 In^{ch} & in 24 hours 9 f^t 4 In^{ch} -
- " 27. At the Old work nothing, all in order, set the 74 to work at 5 o. 35 P.M.
- " 28. At Coal work nothing, at the 53 being putting the shaft in order, the timbered having given way below the Old Colliery, at the 74 obliged to unplug the North boiler the feed pipe being loose.
- " 30. This morning began to clear the Surps in the 9, which was finished to night. 74 gone well water down 23 f^m 2 f^t -
- July 1. At the Old Colliery finished both Surps to night, at the 4 P.M. Stopt the 74 to change the 16 In^{ch} bucket, when it was that the middle joint was broke, when she stopt, the water down 28 fathoms.
- " 4. At the Coal work nothing all being in order, at the 53 the little boiler was obliged to be unplugged again, being unright at the 74 nothing water down 22 fathoms.
- " 5. At the Old Work nothing all in order, the climbing in the Surps goes very well, At the 74 Stopt at 7 A.M. to pack air buckets clean & to the South boilers & flues, tapp'd blow pipe & Re -

1820

27

- July 6. Last night or rather this morning got the 74 to work again when the water was down 10 fathoms, but obliged to unplug the South boiler against not being tight at 11 o'clock to night - At the old Colliery nothing, the New sinking goes well -
- " 9. Since last nothing particular has happened all being in order & the water down, the water down 22 ft 4 ft
- " 10. Put on a new Crank Rope at the 53, where the water is down got the coal in the drift in the Association, Water down 23 ft 3 ft at the 74 - Begun a new bore hole 69 fathoms down to the 55 as seen in boring journal (N^o 63)
- " 15. To day was down & lined in the low drift, where they have begun to drive a headway up to meet the dip boards of the restorations. As also lined the workings in the high seam of the Union - At the 53 took up the ground beams in order to get better to the upright joints. The 28 goes well the 74 goes well water down 23 ft 5 ft on the 13th it was down 24 ft 4 ft
- " 19. At the Coal works nothing all being in order, the sinking of the Hilpers goes very well, that for the bore hole also - At the 53 put flannel round the air joint & put a new heap on it also cleared both her boilers & flues - The 74 goes well, the water being down from 23 to 24 fathoms
- " 25. At the Coal works nothing, except begun the broken to the 8 & 10 in Preswate in the boards further in - At the Sinking going well, but as yet no signs of the Stone head in the bore hole - At the 74 nothing she having gone all the time, water down between 23 & 24
- " 27. To day all the Owners came out from the Ovingborg, where all the Men were called up, & told to prepare for themselves at new year. No work done to day
- " 31. At the Coal works Engine nothing all being in order. the Water down as usual at 74
- Aug: 2. This morning begun to draw the 17 inch pump at the 53, there being several joints unright, got 9 a.m. to leave - the Water has not got the Association yet, the 28 is unright in the cistern somewhere, the Air pump & Condenser is to be taken up to morrow -

Coal in drift

N^o 63

headway in Assoc.

74

meeting

Aug:

- August. 1. To night got all the pumps up, when, that top flange that was put on the top of the Working Barrell was sent into Mborg to get bored out, as it was found that barrell itself was wore considerably wider where the bucket wrought, than it, so that it returns nothing can be done with there resetting, mean time overlooked the Doors &c. At the 28 took up the Air pump & Condensers which where unlight at the joint to put on for foot valve. Water rose so much that the Association cannot work.
- " 6. Last night at about 12 o'clk. the piece of pump came from Mborg & was begun to put on this morning, as also the Doors &c fitting. Having shifted the lamps to the Restoration the Air is considerably better.
- " 8. This morning begun to set the pumps at the 53. At the coalworks the Air is rather slack, on acct of the water being roofed in the Association.
- " 10. To night at 2 o'clk got the 53 to work, after having given her thorough repair.

1820

29.



- October 18. To day at 12 o'clock stop the drift at level in the distance
 Drift Weighs busy with loading to the Machines at Shilpen
 Stop 3 men down there in Borehole. No 63 Mixed sandy
 clay in the bottom
- " 19. Nothing new all as usual 4 men down the Shilpen, the
 men belonging to the drift at Coalworks for want of
 planks - H

1820

33_

1821

May 15 Nothing new at the Casinos or pits excepting at the Hiskop, the Flewers there refusing to go down before they know whether they could get money or not. Major paid them each 20d. with which they seem content for the present.

16 Last night put a new Cylinder lid on the Machine at the Restoration, the old one being split quite across. This now put on formerly belonged to the Mill. — Holmstedt & Lundquist completed the reporation of the old Wagonway according to their bargain for 25 R. No Massey at work & Helsing busy with small jobs for Mr. Gram. Nothing this Evening.

17 At 9 P.M. changed the 11 inch Bucket at Hiskop.

18 To day the Bucket fastened in the Working Barrel of the 11 inch set but was soon got up again and another put down — otherwise all in order. — Changed the little Boiler at the 53. —

19 Changed the Bucket & Clack at the 53 inch Engine. —

20 Nothing new. — all in order. —

21 Changed the Bucket at the 53. — all otherwise in order. —

22 Nothing to remark. —

23 At 4 P.M. stopt the 53 to clean the great boiler at the 45 inch Cylinder Engine; and changed the air Bucket at the Hiskop (28 inch) —

24 Cleaned the ~~great~~ Boiler at the 53. the Engine stood the whole day. —

(Pumps up) 25 Changed the Bucket at the 53 this morning; & soon after the Bucket was put down, the 3rd Spear broke, wherefore obliged to take up 12 pumps which was done this Evening. The 45 was started but the Bucket also being bad there she was stopt again immediately.

26 To day put a new Spear on & got down the 12 pumps that were taken up yesterday & set the Engine to work at 1/2 past 11 P.M. after which registed the pumps. —

30 Changed the Bucket at the 53 & packed the air Bucket. — All in order at the Colliery. —

1821

1821

35

- June 7 The Water being down at the 53, the Engine was stopp'd to change the Air Bucket & pack the piston, and stand from 11 A.M. to 1/2 past 4 P.M. Yesterday Evening changed the 11 inch bucket at the Help pit. —
- " 8 Nothing new at the Colliery. — At the 53, & new Bushings in the Gaudes & piston hydra, which stopp'd the Engine from 10 A.M. till 4 P.M. otherwise all in order. —
- " 12 This morning, the water being down, packed the Piston & Air Bucket in the 53 inch Engine. — At the Help pit all in order. —
- " 13 This Morning changed the Bucket & Clack at the 28. The Engine stood from 1 till 1/2 past 4 A.M. — Down the Restoration, & lined —
- " 14 Down the Restoration, & corrected the lining of yesterday in the Stone Drift. Repaired the plug tree ogla at the 53 & lengthened it. —
- " 15 All in order — except changing the 17 inch Bucket. Lined in No. 30
- Lined in No. 30 16 Andreas Arvidson began to put the 74 inch Engine in order. & at the 53 changed bucket again. —
- 17 This Evening the Bucket of the 53 went off once more, the Engine was started at 1/2 past 11. all this is owing to the bad quality of the Leather, as that ordered from England & which is now laying in Elmore, cannot be had, before payment is made. — Pumped water into the Boilers at the 74. —
- 74 to work 18 The 74 got to work today in order to polish the Iron part. —
- " 19 Nothing New. the 74 going very well. —
- 74 stopp'd 20 Dito. D. stopp'd the 74 inch Engine, the water in the Shaft having sunk fa. and at Brass Backe fa. otherwise nothing to remark. —
- July 2 The Water down & nothing new at the Colliery except meeting with a Trouble or hitch in the Dip bord (4 Mans Ort) which appears to dip from N.W. to S.E. —
- Trouble in Restoration. 3 Changed the Bucket & Clack at the 53 this morning. —
- Bucket & Clack at 53. 4 An Examination was held in the office today about the Copper Rixdollar, which some have been counterfeited, but nothing could be made of the persons accused. —

1821

July 7

All in order - last night the workmen in the Dip or "4 mans orten" got through the Trouble which was not with on the 5th. We must remark that the water in the bords above them or towards the N.W. although so full of water that the hewers there could scarcely work with their Backskins on before ^{this} an half hour afterward were quite dry - so much had the water left them in a short time. Today changed also the bucket & Clack at the 28 inch Engine.

8 The Engine at N.G. going well but that at the Help pit indifferently owing to the Air Pump & Condensor being in such bad order. My Uncle & Jane went yesterday Evening to Helsingborg. Changed Air bucket in the 28.

9 This Morning the water not being down at the Hjelpen the men in the Dip bord were up; and in the afternoon sent to the Canal. At the 53 the Water down & otherwise all in order at the Colliery.

10 The Water not yet being down at the Hjelpen, cleared the Flues in order to try if that could not help. As the Wind has blown from the South so that the fire could not draw, probably that is partly the reason why the Engine does not go well - partly also owing to the bad state of the Air Bucket & Condensor - as well as to the Boiler having sunk on the backside - in consequence of which there is little or no draught. Changed the Bucket at the 53 this afternoon - the water being down at One this Morning.

Bucket
at 53

General
Lotting

11 The Water down at the 53 & at the 28 at 6 P.M. yesterday nothing otherwise new at the Colliery - The Men in the Dip bord or level at the Help pit were down to day after having been up since Friday - Five of the old Russians were sent off to day - This Evening is a General Lotting.

12 All in order at the Engines - At the Lotting last night were 65 men so that with those in the wet bords there were in all 94 ^{including 2 who were not, liable to the Lotting} hewers viz: 61 in the Restoration - 31 in Försöket - & 39 in the Help pit. The Men belonging to

1821.

37

- 12 To the Försöket not coming in time & some wanting Hamnel
Shirts, Mat Örtz Hattar, &c - it was deemed best to stay
the work at that shaft to day as only 8 Men were down
at 6 o'clock. - Packed the Piston & cleaned the Cistern at
the 28 inch Engine. - This afternoon my Uncle came from Helsingborg.
- 13 All in order this morning - My Uncle was down the
Restoration & Försöket.
- 14 To day all in order at every pit and Engine. Except
the 11 inch bucket at the 28 began to slip water. - To day
8 Carriages with Gentlemen & Ladies (most likely from
Ramlosa) were here to see the Colliery but none of them
were down the pits. - A little after 6 this Evening my
Uncle & Jane went to Helsingborg. - The People got very little
money this Evening.
- 15 This morning changed the bucket at the Help pit, &
set her to work again about half past 9 A.M.
- 16 Nothing new at the Colliery - the water down
at the Engines, & all in order.
- 17 At 8 o'clock yesterday Evening the Engine (53 inch)
having struck too hard out fastened the Bucket in
the 17 inch sett. The Engine stood all night, and
this morning about 9 the bucket was got up. -
Otherwise nothing new at the Colliery. -
My Uncle returned from Helsingborg to day, ac-
companied by a Baron Klinkerström a Swedish
Gentleman who has been travelling in America
& France, with his Son. - The Water not down in the
dip bord of the Help pit, consequently the men
who work there ^(i.e. in that part) at home. -
- 18 This morning all in order, and only 3 men at home
viz. one from each pit. The Water not yet down at
the 53. - Changed the Bucket at the 53, late at night.
- 19 At the Colliery nothing new. - Cleaned the Flues
of the 53 & 45 inch Engines. - The fluehole of the
45 being too little, opened a new one, in order
to get the ashes out. To day both Count Pipers
with 2 other Noblemen accompanied my Uncle from
Helsingborg, & Returned again in the Evening.

Birch Cyl.
BucketBucket
at the 53

53-Bucket

53 ~~45~~
Count Pipers

1821

- July 20 This Morning set the 53 to work after having
cleaned the Flues &c. (And at 12 p.m. set her to
work) - Otherwise nothing to remark.
- 21 To Day the Engine (No. 53.) has gone well but the
water not yet down. - Changed the Bucket & cleaned
the flues at the 28 inch Cylinder Engine, where the
water was not down until $\frac{1}{2}$ past 8 this morning
in the Dipbord.
- 22 Nothing to remark except that the Workmen
received the full balance of their wages last
night, (with the exception of a few Skillings,) on
which account they were naturally pleased.
- 23 To Day being Monday, one would as usual have
expected that many of the workmen would have
been at home, especially as they had received their
full wages on Saturday - but only 9 men were
from their work as Coalhewers.
- 24 This Morning 11 men at home - The water being down
at the 53. Tightened the 17 inch pumps & screwed them
fast. - Packed the 53 inch piston this afternoon.
- 25 To Day my Uncle returned from Helsingborg &
went there again after dinner; having inspected
the Colliery &c. - 4 Men employed in cleaning the Canal.
- 26 To day 28 Men at home so many having got per-
mission to go to Helsingborg Fair, which is held today.
The Water down, and all in order at both Engines.
- 27 The Water down at both Engines this morning - Yesterday
were 5 Officers here, 4 of whom were down the
Restoration one of them (Lieut. af Klinteberg) son of
the Landhövding at Malmö. - 3 Men in the Ditch
- 28 This morning changed the 17 inch Bucket, the water
being down at $\frac{1}{2}$ past 6 A.M. The Engine was at
work again before 8 o'clock. The Water down in
the Hjelpen - 16 Hewers out home from all the
three pits - Storm & rain. - 3 men leaving
the Ditch that was made last winter to the
Canal. Changed the Bucket again about 12 o'clock.

changed
28" Bucketfull pay
for peoplechanged
the Bucket
2 times at 33

1821.

30
39

- July 29. All in order.
30. Changed the 17 inch Bucket this morning - otherwise nothing to remark - The 2 Carpenters (Helsing & Holmstedt) repairing a boat at Högarna, they having got leave of Major Grams - Nordberg at the New House & Fagerström shooting &c.
31. The Water down this morning both at the 53 & 28 inch Engines - 16 Hens at home - The joiners & Masons employed as yesterday. - About 1/2 past 1 this afternoon the Fly Wheel Axle broke in the middle of the bushing, at the Machine at Hjelpen - A Message was immediately sent to Helsingborg, to my Uncle - there being no reserve ^{axle}, the Gin horses were put to at the Besvärret.
- Aug. 1. This morning the 17 inch Bucket went off again, owing most probably to the badness of the Leather. Took out the broken axle at Hjelpens Machine.
2. The water being down this morning at the 53, unplugged the little Boiler in order to clean her, & the Flues. &c. at same time took of the Beam chains to repair, and also saw after the Piston, Cylinder &c. &c.
3. About 12 last night got the 53 to work; this morning the Bucket appeared a little bad again, & in all probability will have to be changed this afternoon. The ^{axle} for the Machine came out about 12 o'clock. Changed the 17 inch bucket - this Afternoon, and
4. This morning at 1/2 past 6 got the Machine to work at the Hell pit - the men went down the Besvärret shaft, but came up by the Machine - The 17 inch Bucket went off again to day and was changed
5. This Morning the Bucket went off again owing to the bad quality of the Leather - It being Sunday no work in the pits.

(53 Bucket)

Axle at Hjelpens Machine

Aug. 1. Bucket at 53

17 inch Bucket

17 inch Bucket

- Aug. 6th All in order at the Collier this morning.
- " 7. Last night the hewers in the Dipbord of the Trial pit met with a second hitch which casts the Coals upwards. The water down at the 53 inch Engine.
- " 8. Nothing to remark. My Uncle returned from H'borg.
- " 9. Dite Dite the hitch in Försöket, or Trial pit still continues. This afternoon My Uncle returned to H'borg. — And at night the 17 inch Bucket was changed again. Having gone since Sunday (the 5th).
- " 10. All in order except at the 28 inch Engine which will not go well.
- " 11. Changed the Air Bucket at the 28. this Evening. & having the water down at the 53, during last night and to day repaired sundry parts (Parallel motion &c.) where necessary.
- 12. Nothing new.
- " 13. The water not being down at the Hjelper, the 3 Hewers in the Level could not work. To day Hellring joined Holmstedt with laying the floors of the new Building at Ryd. Three men who have for some time been cleaning the Ditches are still employed there, & to day are packing clay in the one to lighten it. — Water down at 53 inch Engine.
- " 14. The water still up in the Levelbord at the Hjelper consequently 3 men at Home. — at 53 same as yesterday.
- " 15. Last night they had the water quite down at the Hjelper. The ~~Hewers~~ joiners employed as before. About 1/2 past 6 p.m. the 17 inch Bucket was to change again. The water down. The hitch continues in the Försöket.
- " 16. At one this morning the water was down again at the 53 inch Engine. The 3 Wrights, Hellring, Holmstedt & Arfridson having got the floors laid at the new House, began this morning to take down the Mack at the Association, which is intended to be set up at the Försöket.

1821-

(41-

August 17th The water down at the Fjølper as also at the 53. at one this morning - but shortly afterwards changed the Bucket & Clack at the latter.

" 18 Nothing new this morning - but at afternoon obliged to change the 17 inch Bucket again. To day my Uncle returned from Helsingborg - And a parcel of English Leather which has long been lying at Elsinore for account of the Colliery came out. The 3 Wrights employed in taking down the Machine & Nordberg at the new Building.

" 19 Nothing new - & the water down -

" 20 Down the Fjølper & Lined there to the Dyke which appears to be the same as that which had caused a quantity of earth to fall down about 2 years ago & which hole was immediately filled with water - this trouble or Dyke being only a few feet from the hole when measured at bank.

" 21 Changed the 17 inch bucket again, it having gone since Saturday and put down one of the English Leather which came on the 18th. The work has ceased for the present in the Dip bord in Fjølper owing to the Trouble or Dyke - Wrights employed as before & ~~XXXXXXXXXXXXXXXXXXXX~~

" 22 All in order at the Colliery - & Nordberg begun to take down the Boiler at the Association. The 3 Wrights there as yesterday.

" 23 To day my Uncle went to Helsingborg - The water down at the 53, & all otherwise in order.

" 24 Nothing to remark - The Engines go well.

" 25 At the Engine 53/ packed the Piston & air bucket otherwise nothing more new than that a great many workmen are at home sick.

" 26 The Water down again last night & the Bucket holds good as well at the 53 as 28 inch Engine at the latter when the Engine is in order & the Water down.

Bucket
at 53
English
Leather
Doctor
dropt down
dead

1821.

August 26 down the Engine is held $\frac{1}{2}$ an hour and when set to work again, generally takes the water down in 2 two hours.

Dr Linderström was buried this Evening about 6 o'clock - there being present My Uncle, the Pastor & 12 others -

Changed the Air bucket at the 28 -

" 27 Dito - Dito - consequently the men were not at work in the Level. otherwise all in order -

" 28 The Water not yet down in the Level of Hjelpen Lined in the Restoration & E. Mothergate of Hjelpen My Uncle was also down to look at the Dyke in the Försök - The water down at No. 9 -

" 29 Last Night begun to repair the boiler at the Restoration pit & at $\frac{1}{2}$ past 4 this morning hold her tight again, when being filled she burst; - was apparently tightened again & full about 6 A.M. - but about an hour after burst again - the men were nevertheless down in right time - but no Coals drawn - Unplugged the Boiler -

Boiler
at Restoration

" 30 No work in Restoration, the boiler being under repair - 4 men only were down last night - My Uncle lined at Bank from No. 16 to ascertain the course of the Dyke -

" 31 The Machine at Restoration still under repair, and the Coals taken up at the Försök -

Sept 1

Drew up the Coals at the Restoration pit -

Sept 13

Cleaned the Boilers at the 4 5 & 3 inch Engines -

[Staple] 19

Began to sink a Staple to the Engine at the Restoration pit -

Sept 20

Got the Boiler in its seat at the Försök -

Sept 28

Changed the 17 inch Bucket & cleaned the Tump -

Sept 29

The Machine ready at the Försök this Evening, nothing new otherwise. Began to pump in the Station Restoration -

Sept 30

Today put the Gin ropes on the Rope wheel in the Försök's Machine, after having tried her yesterday, when she went very well. Drew water into the Dams -

1821

43

- October 1. After having on Friday Evening changed the Buckets
 { Machine } at 12 o'clock at the 28 inch Engine, the water was
 { to work } not down this morning in the dip bord.
 { at Försök } The Försök^(Machine) went off very well & continued so the
 whole forenoon - but in the afternoon the Machine
 was so bad, that the most of the hewers &c were
 obliged to come through the Restoration pit.
- 2 The Machine at Försök, as well as all the others
 in good order - Nothing new at the Colliery.
- 3 This being the first Day of the Market at
 Helsingborg - many of the people were there.
 Allmänna Lotting 72 Men
 Nothing otherwise new. General Lotting 72 Men
- 4 To day most of the workmen at Helsingborg
 { Colliery } The Major having given them permission. No
 { stood for } the fair } hewer was down, consequently no work done.
 The Water down at Both Engines.
- 5 Dito - Dito - very few men at work to day
 { only one pit } at the Restoration 5 - but no driving - in the Försök
 { at work } none - and in the Hjelpen very few altho' there is
 no water in the Shaft. The Water down at No 9.
- 6 The Water down - and all in order - The Boiler Smiths
 busy taking to pieces the large boiler at the 53 - & the 2
 Carpenters, Arvidson & Hellsing, repairing the Oxtable &c -
 the Major having bought at the Fair at H'borg, 8 Oxen.
- 7 Nothing to remark. To day My Uncle returned from
 Helsingborg - having been there since the 28th ult.
- 8 The Water down at the Engines, and very few workmen
 at home considering its being Monday.
- 9 This morning at 7 o'clock the water being down at the
 53 inch Engine, Walter took down the Parallel Motion,
 to repair & cast a new bushing in the Beam Eye
 Parallel motion in 53 - past 3 o'clock
 Measured at The Engine got to work at 1/2 ~~past~~ 3 o'clock
 Bank from Restoration & measured ^{above ground} to the Dyke
 Försök to Dyke ~~xxxxx~~ in the Dip bord, also from the face of the
 hedges ~~xxxxx~~ in the Försök to the above mentioned Dyke or trouble.

1821

- October 9th The course of which is, viz from the Försökets Dip
headways (at face) to the Dyke in Restoration (or
to the bord going through it.) I.C.C. distance 65 fath.
- " 10 Down the Restoration pit with my Uncle to see
the Dyke in the Dip bord - The 53 got to work at
1/2 past 3 yesterday afternoon.
- " 11 All in order of the water down at the Engine -
My Uncle went to Helsingborg this afternoon -
at 1/2 past 2.
- " 12 The Water down at the Engines this morning &
nothing otherwise new. This afternoon a
Feeder in the Restoration) feeder of water broke out in the Dip ~~at~~ ^{Headways} in the
Restoration pit. 11 fathom below the Staple.
- " 13 All in order at the Engines & Pits excepting the
Restoration on account of the Feeder. Cleaned the Boiler
at the 28 inch Engine.
- 17 inch
Bucket, 14 Set down the jackhead pump belonging to the
Machine at 17 in the Staple of Restoration -
Changed the 53 inch cylinders Buckets. And
to night had the water down in the Restoration -
- " 15 The Water down in the Dip of Restoration pit
with the one pump, the feeder having leepened,
or sett off, so much. At the 53 the water was
down at 4 P.M.
- " 16 Packed the Piston and air Bucket at the 53 inch
Engine - the Feeder has decreased a little
Restoration pit without the aid of the pump newly
put down, but 8 men are employed to work her, viz
4 in each shift & she must be kept constantly at
work.
- " 17 All the same as yesterday - the Engines going well.
This Evening my Uncle returned home. He has been
on a visit to Dr. Wahlén at Norrvidinge during
his absence. On his arrival he immediately sent for
the Overman (German) and ordered that only 4 men
should be employed at the pump in the Staple in the
Restoration, 2 each Shift & 2 new bords to be begun
nearest thereto, in order as well to employ the men
until they ^{can} drive thro' the Dyke, if possible, as to
see if the feeder will take off. This morning

Packed 53
inch piston
& air bucket

October

1821

(45)

got the whole of the Boiler at 5.3 (in pieces) taken to the Boiler Shop.

" 18 The water down at 4 A.M. at the 53. — altho' the weather is far from being moderate, having very cold nights, yet there is now on one of the Apple trees in my uncle's garden, a full blown blossom! — At 5 this Evening the men at the patent pump not being able to keep the water down, ~~in~~ in the Staple it was suffered to run over into the level.

Blossom
on Apple
tree in gar-
den
pump in
Staple

" 19 The 53 keeps the water down as usual ~~there~~ ^{it} being down this morning, so that it is no new feeder which is in the Restoration, otherwise there would have been more water at the Engine pit. — Those men who were in the Headways set to other work, to the broken in one or two pillars. —

" 20 The water down at the Engines at 3 this morning & as usual the Engine was stopt for 3 hours. — During the Night Carl Andersson who is driving thro' the Dyke in the Restoration pit met with Freestone bands. —

" 21 The Water down at the Engines, & all in order.

" 22 Dito — Dito — Down the Restoration with my Uncle to look at the Dyke. — My Uncle went to Helsingborg this afternoon.

" 23 To day the Boiler Smiths, Ljungren, Wahlgren & P. Anderson went to Helsingborg with the stamping or Clipping Engine in order to build the Boiler for the New Steam Boat.

" 24 This Evening Lilljgren who has been at Court. Popen at Helsingborg to look a well, came to me with a note from my Uncle, to send him the levelling instrument as Lilljgren has found Coal there. — Begun to raise the Jack at the Borehole — 63 the Materials being driven there yesterday.

" 25 The Water down at the 53 this morning at ~~5~~ ^{only} 5 o'clock and stopt the Engine 2 hours, the bucket beginning to fail. — otherwise the Engine has held 3 hours & gone & so that the water has been kept down notwithstanding the feeder in the Restoration. — Changed the Buckets in the ^{finch} pump it was not bad, but one of the sprints had got loose, so that

October 25 that the Same Bucket can be put down again, the
 53 inch Bucket latter being equally good although the Bucket has been
 down since the 14th inst. it is of English latter. — At
 the Borehole No 63 beside Rönninge begun to take up
 the Timbering.

26 All in order at the Engines. — At the Borehole No 63,
 the Quicksand or Flay has ~~fallen in~~ ^{fallen in} so much during the
 Night that it is with difficulty we can get up the tim-
 -bering; or rather that part we can come at.

A Doctor of Philosophy named Rose from Berlin
 was here to day, and was down the Restoration he is on
 his return to Berlin, having travelled thro' Sweden &
 visited Norway. He appears to be perfectly acquainted
 with Mineralogy & Natural History in general.
 unluckily My Uncle was not at home to receive him.

27 The Water down in the Night at the 53. & this
 morning changed the bucket & Clack at the 28 inch
 Engine. — At the Borehole No 63 the 4 men employed in
 plucking the Nails from the Deals taken up there.

28 Nothing to remark. — The water down. My Uncle came
 from Helsingborg to day.

29 My Uncle was up at the Pits & Borehole, where he gave
 orders that they should cast up as much as possible in
 order to get right on it again, in which the men are
 now employed. — Packed the Piston & Air bucket at the 53.

30 Begun this morning to cast up the Quicksand &c at
 the Borehole No 63 & at same time of course drawing
 the water. Nothing new at the Engines.

31 All going on as yesterday. — The play finished to day &
 the Lotting between the lords took place this Evening.

Nov. 1. This morning took up the horses 11 at the Resto-
 -ration, so that the Stable can be removed to Försök.
 Most of them being a little sickly they are to be kept
 up a few days that the Farmer may see them.
 The Water down and all in order at the Engines.
 My Uncle went to Helsingborg this afternoon.
 Very stormy weather Wind Southerly which
 point it has blown from these last 3 weeks.

1824.

47

- Nov^r 2nd During the last night it has blown very hard from the S.E.W. and has continued so the whole day. The Water down at the Engines & the Mann Nordbeck having finished the Furnace at the Frisöket the Timbermen employed to set up a chimney of deals. This furnace is built & a bellows ^{is to be} set up there in order that the Pick may be sharpened at the Pit it being such a distance to the Smiths Shop at the Grufgårdar. At the Borehole N. 63 are 8 men employed casting up the Clay &c. & today laid two bales under the ends of the others that they might not sink ^{or give way} more. The Restoration ^{stopt} yesterday, with the exception of 2 Men & 2 Boys (one of each in daytime & the other in the Night shift) who are in the Dyke & are helped down by men turning the Fly Wheel.
- " 3 Last Night it has blown a dreadful gale from the Westward, several boats were in the Harbour, one of which drove on shore during the night; - and another belonging to Upspor Hellman laden with Coals filled with water & sunk about 7 this morning in the middle of the Harbour. Nothing new at the Colliery.
- " 4 This morning about 7 it began to snow & has continued the whole day - Wind E. For the first time this winter rode out a sledging - Changed the Bucket at Hjelpen.
- " 5 Nothing particular to remark at the Colliery - At the 53 packed the piston & Air bucket & greased the Bolts &c.
- " 6 The snow which fell on Sunday has by its weight caused the sides of the Borehole to fall in a good deal so that some labour will be required to take up the rubbish - however they continue working there - The overmen busy making a stable in the Frisöket, or rather removing the old one from the Restoration.

Restoration
stoptStorm &
boat sunk
in the harbour

Snow

- Nov^r 7 All going on as yesterday - very hard frost. Wind E.
- " 8 Today got down 5 horses in the Försök at the Borehole still the same they continue to take up the Quicksand, Clay & are not much troubled with water. At the Engines all in order.
- " 9 Still hard frost - today my Uncle returned from Helsingborg -
- " 10 To day got the remainder of the pit horses down the Försök the stable being finished - there are now 11 in the pit & one sick at home - There are at present 5 Banstemen & 4 horses employed at Bank at that pit -
- " 11 Today the timbering at the Försök was heightened half a deal round about -
- " 12 Today lined in the Försök from the Shaft - and began a borehole in the East Stone Drift in the Restoration in the Trouble in order to ascertain where the Coal lies there - Cleaned the great Boiler at the Engine pit, & wedged the Beam head at 53. as well as ^{made} sundry other repairs (Engine stop at 1/2 past 8 a.m.)
- " 13 Borehole No. 64 in Restoration cleaned the great Boiler & lined in the Försök at 53 -
- " 14 Last night 4 additional men were set to the pick at the Borehole No. 63 on the fell in order that it may go night & day - the 3 sinkers there, will consequently relieve each other every 8 hours. This morning cleaned the little Boiler & flues at the 53 inch Engine - & got her to work again about 1/2 past 2 p.m. having stood 30 hours - viz. from 1/2 past 8 a.m. yesterday - Got down the gin at the Försök in order to lay it in the timber yard -
- " 15 Today a greater number ^{of men at home} than of late has been usual they report themselves sick - but this often happens on the first day of a pay - Last night in the Borehole No. 64 in the Restoration they had bored 5 1/2 feet - & at the other ^{at 63} casting up at the sides -
- " 16 Today changed the Clack at the 53 inch Engine the Bucket being good was put down again - Dahlberg the Fireman died to day after a short illness -

Borehole
No. 64 in
Restoration
cleaned the
great Boiler &
at 53 -
lined in the
Försök

"
No. 3 night
& day

cleaned the
little Boiler

"
Clack
at 53

1821.

49

- Nov^r 19 To day got Coal in the Borehole No. 64 in the Drift at fath. 9th deep & in which they bored 3 inches & stopt until my uncle gave further orders -
- 20 Changed the Bucket & Clack at the Hjelpen, where one of the Engine wrights (Bergman) got his arm severely hurt, also packed the 53 inch piston. Nothing otherwise to remark.
- 21 Do - - - except that Helsing and Nyfvidson began to put the ~~XX~~ Machine at No. 7 in order, as the Cylinders for the Steam Boat are to be bored here.
- 22 Having rec^d a letter from my uncle to that purpose, went down the Restoration & bored thro' the Coal in No. 64. Linda & Germund with me - kept a piston & took proofs of the borings when the seam was found to be as follows - The roof was 2 fath. 5 ft 8 1/4 inch from beginning of Borehole ~~to shaft~~ & they bored 4 feet 2 3/4 inches through the Coal to the Thill. The Coal appears to be much the same as that above it, & was found to be 3 fath. 3 feet 4 inches to the Thill. This afternoon my Uncle ret^d - turned from Helsingborg.
- 24 Drove the Restoration & lined from the ~~to the~~ Apiciation Shaft to the Borehole in the Drift or Lyke. & my Uncle marked out at Bank a new sinking to be wrought 5 fathoms N.E. from the above mentioned Borehole, viz. that in the Drift.
- 26 To day the Engines have gone well. The Air in the Fire shafts they complain off & therefore the Duties & Overman are down to day to see after it.
- 27 There being too much water in the Hjelpen the foals are taking up at the Benwärd with the Gun, otherwise nothing new.
- 28 Dito - - - Dito - - -
- 29 Dito Packed the 53 inch Piston & Air bucket.
- 30 The Water down in Hjelpen excepting the Dip ladders & Stopt the Borehole or Sinking on Pönings fild. This Evening, in order to begin the new sinking tomorrow.

Borehole No. 63 stopt

Deck
Shaft
Hazard

This morning at 9 o'clock I lifted the first turf of the new winning which is named the Hazard & is situated close to Midarp; & 1/2 E. from the Restoration from Fisker's shaft. The night before last, The Gunboat (Capt. Sögnalöö) drove in shore in the mouth of the harbour here, & was obliged to cut away her mainmast - Capt. Sögnalöö wished to have some timber for a jury mast & drove 2 Barks down to Höganäs, but did not make use of them.

28 inch
Engine

This Evening when done at the Thielpen knocked in the Flue holes in order to repair the Boiler which had burst, & also to repair the Mason work round the Boiler & clean the Flues.

3. The water being up at the Hjelpen, The Stewers there employed were sent down the Union pit until the 28 inch Engine & boiler be thoroughly repaired.

A Nordbat has last night been wrecked near Höganäs & between 20 & 30 Casks of Brandy &c. driven ashore - & today they are employed with the 7 boats which were wrecked yesterday morning - it still continuing a hard gale of wind.

4 The Smiths begun with the 28 inch Engine's boiler - & packed the piston & airbucket at the 53.

5 Took up the 28 inch piston in order to put a Lead-Flange in the Cylinder bottom & also makes other repairs - My Uncle returned from Helsingborg today.

6 To day my uncle went to Helsingborg again, after having seen round the Colliery.

8 Hellsing got the Cylinder up ready to bore the machine at 17 having been under repair these 10 Days - & the ~~Bath Smiths have this Evening finished repairing the Boiler at the 28 inch Engine so that it can be again used on Monday~~ ~~for the 28 inch engine~~ ~~the Hazard~~

1891.

(51)

- Dec. 9 This morning cleaned the Boiler & Flues at the Machine at ~~Frederick~~ ^{Frederick} pit.
- 10 The Smiths still at work at the 28 inch Engine which they are not likely to get finished before the end of the week. Begun to work double shift at the new winning.
- 11 Changed the bucket at the 53, this Bucket has been down more than a month. The Sinking is going on very well, No Water & Clay at the Bottom. Put up the Jack Rod today.
- 18th The Masons began to repair the Boiler ~~at the 28~~ ^{at the 28} nothing otherwise new.
- 20 The Masons finished the Boiler at 28.
- 22 Begun to put the timbering in the Hazard pit seven rings being now ready - the Sinkers will therefore work 3 Friday and 3 at night as long as they are busy with the timbering. Packed the 53 inch piston the water being nearly down, although we have got a great deal more water there since the ~~Helpen~~ ^{Helpen} stop. Before that the 53 could stand 6 hours out of the 24 & keep the water down & now scarcely 4 in the same time.
- 23 The Sinkers at work with the timbering in the Hazard.
- 24 To day the rod of the y broke ^{in the 12 inch set} & one pump was lifted before it could be got loose - after being repaired was set to again & being Christmas eve the pits finished before dinner time.
- 25 } No work done - the 53 going.
- 26 }
- 31 Nothing particular to remark - The Sinking pit is going on very well the same materials continued, only that the Clay is not quite so hard. Many men at home on account of the holidays. Very stormy weather, Wind & Rain, as yet no frost & the roads uncommonly dirty.

53 inch Engine

timbering in Hazard

Jan 2 Last night being the general lotting, so few hewers were at the heap this morning & so little Coal given up that no work was done, the boys &c. who were there are to have $\frac{1}{4}$ of a days wages each. — On the 31st Dec finished the Stone Drift in the Restoration pit, viz 5 fathoms from the Borehole down there, to the new sinking pit. The workmen could hear each other distinctly; viz. the Sinkers in the shaft & those in the drift. — Return from Helsingborg where I have been backwards & forwards these 4 days.

Drift
in Restora-
tion —

4 The Sinking going on very well, same as before with little or no water.

5 Do. Do. My uncle went to Helsingborg.

7 Do. Do. only that the Clay will not stand till they can sink a whole length of deals, & therefore obliged to put in Cribbs at every fathom. A very severe frost has now set in — wherefore saw that all the pipes, pumps &c in the Engine were preserved from any danger of freezing, also packed the piston & Air Bucket; also unplugged the Boiler in the Machine for drawing Coals at the Helsen.

Hazard

Frost
packed
53 inch
piston &
air bucket

2nd Cylinder
came out

9 To day timbered another fathom in the Sinking pit, making 11 fathoms in all. — The water lies at the 53, but is not yet down. — This morning the 2nd Cylinder for the Steampacket came out to be bored, & that already bored was sent for return of same waggon to Helsingborg. Frost still very severe. — Wind E.

10 Today my Uncle returned from Helsingborg. Helsing was not at work with the Cylinder to day, having a Coffin to make for Mans Lotz wife. — The water at the 53 inch Engine continues to sink as long as the Engine is at work. It sunk 4 inches last night. The Sinking pit & every thing else going on in good order. A storm to day, with rain, snow, & sleet. Wind S.W. & W.

- Jan 11th This morning Helsing put the chains on & fastened the Cylinder, in order to begin boring it as soon as possible. The water in No. 9, when the 53 inch Engine does the whole time, sinks in that shaft, about 4 or 5 inches during the 24 hours.
- 12 Helsing began to bore the Steampacket Cylinder. The 53 has gone well all night & the water has sunk a little.
- 14 Returned from Helsingborg where I went yesterday to pay the Boilersmiths & Smiths their wages for each of the Steam packet.
- 15 Last night got a spring of water in the Sinking pit ^{water in the sinking} Hazard, in Sand & Gravel, instead of the Clay we had before, depth 13 fathoms. Deep.
- 16 Changed the Bucket & Click at the 53 last night & set her to work about 10 P.M. also began to fill the Boiler in the Machine at the Helpon, to drive water to fill that at the 28 in order to complete which, were under the necessity of damming the water that runs from the 53 inch Engine & making a small ditch, behind the 28, so that the water might run that way, as it could not reach that small one which runs past No. 7 from the 53. The 28 was set to work about 8 P.M. My Mill went to Helsingborg this afternoon.
- 17 The 28 went all night, but this morning changed the Click. Cleaned the Bucket & made other repairs in the Engine. Cleared the Flues at the 53. The Engine stood about 4 hours & was set to work about 3 P.M. The water has since sunk a little.
- 18 At the Sinking hit the same sort of Sand or Gravel in the bottom but with more water, so that it falls out at the sides. Therefore put in a Crib & timbered it to day. The Water at Bross Backe has this morning risen 6 inches & at Ryd 4 inches since yesterday morning. The 53 going well.
- 19 At the Sinking pit, nearly the same as yesterday. For one bucket of ~~water~~ Sand or Gravel which is taken up, they may take up 8 or 10 Buckets of water. The timbering has also sunk nearly an Ell (Swedish). The Timbermen (Apuison & Helsing) began yesterday to remove the Crib from the Frisöket but cannot get hold - indeed Major G. has said it was unnecessary for the present; therefore wait until

1822 1/2

Jan 19 my Uncle comes home which I expect will be to-
morrow. The Eye of the Air Bucket rod broke this
morning about 3 o'clock which stoppt the 53 inch
Engine about 3 or 4 ~~and~~ hours. untill it was sent
to the Smiths shop to repairs. The 28 inch Engine
goes only tolerably well. To day the people get
provisions as Beef - Pork - Peas - Brandy &c...

- 20 Changed the 17 inch Bucket. My Uncle came home.
- 21 At the Engine all in order. The water in the
Hjelpen Sinks, & I hope that in the course of 8 or 10
days the water will be down in that pit as well as
in No. 9 as they have not near so much water as
when the 28 was standing. Sven Hultman died yesterday.
- 22 At the Sinking pit got the first Head & put down a
boring box this Evening. All otherwise in order.
- 23 Continue at the Sinking to prepare for boring thro'
the post. At the Hjelpen yesterday the water was
taken down 2 feet & last night 18 inches, so that if
the 28 goes well the water may be down there this
week. at B. Backe it has sunk since yesterday
inches & at Ryd inches. Packed the piston
& Air Bucket at the 53 inch Engine.
- 24 This morning my Uncle went to Helsingborg.
at the Sinking pit busy with the logs & also
transporting the Bore rods &c. - & at 5 P.M. began
to bore. The Engines going well and all things else
in order.
- 27 Nothing new these last 2 days. Last night the
Bucket went off at No. 9. Walter let the Engine
stand till this morning, & she is now at work
again with the new bucket.
- 28 Hermann & Anders down in the Hjelpen to clean the
Lake. all else in order.
- 29 Same as yesterday the water almost down at
Hjelpen so that can get down there tomorrow.

Hazard
4

1892

(53)

Jan 30th
Hjelpen
last work

To day shifted the Stewers from the Union to the Hjelpen, the water being down there, except in the dip hole - 4 men remained in the Union. - At the Sinking all is in order - as well as at the Engines. -

Feb 6 Begun to cut through the heap at the Restoration in order to lay the Waggonway to the new pit - 5 men have agreed to clear it for 50 R^d R^{ss}. - Holmstedt & old Hultman employed in taking up the old H. Way to Beswäret. ^{that is} The Sleepers & what other timber can be used may be transported to the new way to Hazard -

9 Yesterday Evening returned from Helsingborg where I have been since the 2nd inst. & today my Uncle went thither - yesterday they changed the Bucket at the 28 inch Engine. -

10 Last night stopped the 53 inch Engine & today cleared both the boilers & flues. -

11 This Afternoon got the 53 to work again & all in order except (as usual) a good many levers at home, which is always the case on Mondays. -

15 At the Colliery all has gone well - they have met with a hitch or trouble in the H. Mothergate in Frisöket, but not yet through with it. At the New Sinking or Hazard pit, last night sunk through 3 inches of coal - apparently Grevinnas Runns Lamm - it lies about 16 1/2 fathom from the surface - or 17 fathoms from the top of the timbering - under these 3 inches Coal they came to hard white post again, very fine. - Changed the 17 inch Bucket. -

Coal in
the Sinking

Changed
53 inch
Cylindric Bucket

20 All has gone well since Friday except at the 53 where the Bucket went off, & which was changed immediately. The water being down. Lotting to night. My Uncle came home today. -

Buckets
at 53
Lotting

21 A good many of the levers at home today, partly owing to the Lotting last night. The Men finished the cut thro' the heap at Restoration for the Waggonway, for which they are to have 50 R^d R^{ss}. these 5 men have wrought at it 13 1/2 days so that they have earned upwards of 34 R^d for them -

56

1822

February

Piston & A. B.
at 53

21 Packed the Piston & Air Bucket at the 53 inch Engine. Took out the Air Bucket & found out out of the Machine at No 17. yesterday as well as the connecting piece, which my uncle saw today - & desired the Air Bucket to be sent in to H. Borg to be bored over again as it was worn in the middle & the connecting piece to be sent in also - also as it was quite open on the one edge.

28 inch Buck:

23 This morning my Uncle returned to H. Borg, all in order except having changed the ~~old~~ Bucket at the 28 inch Engine.

24 Nothing particular.

25 The Colliery & Engines in order - Busy taking down the plug tree & working gears at the Machine at No 17. in order to see after and put them in order & which were removed to the Smith's Shop on the 26th on which day nothing more

53 inch
Engine

26 The Sinkers still busy with the Rutte in the Hazard, but as one deal was too long it was deemed better to sink a few inch lower instead of cutting the deal - This afternoon ^(at 3 1/2) stoppt the 53 inch Engine, till tomorrow as the Bucket & Clack are both bad - ~~at~~ Storm from W. Boats drove inland last night.

53 inch
Engine

28 Today begun with the Ground for the Engine which is to be set up at the Hazard pit - with 4 men - the sinking goes on well - At the 53. straightened the Bottom Rod as well as changed the Bucket & Clack, which stoppt the Engine till 1/4 p.m.

March
Stone Drift
in Forsöket

This morning all is in order - & in the Drift in the Forsöket they have today hewed thro' to the old one - the one is 10 feet under the other, & cut the sinking all in order - this evening or afternoon, the Bucket at the 53 went off again & in trying to fetch her the Crab rope sprung & the Bucket fastened in the working Barrel.

53 inch
Engine

2 After working on until 9 o'clock last night without being able to get the Bucket loose, the men were sent home - This morning at 5 the begun again Mr. Prey was obliged to lengthen the ^{Beam} Chains with those from the 45 & also to lift or take up the uppermost pump, but the Engine & Crab both at once after several trials could not get it loose - wherefore sent word to my Uncle in Helsingborg to stop the Engine until he came.

1822

57

- March 3rd came out today when the Bucket was got loose. -
 Cleaned the Boiler & flues at Helsingborg.
- 4th My Uncle returned to Helsingborg to meet Major Forsell there - At 4 P.M. the 53 inch Engine got to work again - Arvidson & Holmstedt at work with the Waggon Way to Hazard - The other workmen, (except Heivers) with the Majors Boat which stranded the last Gale.
- 6 A very severe storm begun last night blowing from the S. & Westward, three of the Colliery's Gin Ropes were sent down to the Harbour to assist in taking the Major's Boat ashore - The Sinking & all else in order.
- 7 Begun to take down the old ground at Association & transport it to the Hazard where the Machine now standing at ~~the Restoration~~ pit is to be set up. Arvidson & Holmstedt having laid the new way to the Sinking, they begun with a new branch to the heap No. 1 at Forsoket, having taken Sleepers from an old Branch at the Restoration.
- 8 About 11 o'clock last night the Bucket at the 53 inch Engine went off, & the Swords broke, & the Engine was stopt until this morning, when another Bucket was put down, (the old one remaining in the pump,) & the Engine started again about 11 A.M. the stroke being shortened about 18 inches. Driving Stones for the ground at Hazard, & pulled down the Chimney at No. 17. - To day another boat drove on shore in the Harbour.
- 9 Changed the Bucket at the 28 inch Engine - 3 Waggon employed driving the Ground from Association & Lais Nordberg cleaning the Chimney Bricks at No. 17. - Very stormy weather Wind - W. - with Hail & Rain -
- 10 To day my Uncle came from Helsingborg - the weather a little milder - Nothing particular at the Colliery.
- 11 The Engine & all going well - fine weather to day - & considering it's being Monday, not many people at home.

53 inch
Engine

March 12th A most dreadful storm to day with the wind from the W. S. W. & S. which with a strong sea drove away the Bridge in the Harbour, where the waves also did considerable damage there. The poles &c. belonging to the bridge were for the most part driven on shore near the Canal, & the greatest part saved. The roof of my Uncle's house was partly blown off, as well as several others. The oldest person here cannot remember such a storm.

13 Most of the men belonging to the Colliery employed in taking up the materials which the late storm cast on shore. The Engines & pits going well.

14 To day my Uncle returned to Helsingborg, having made a calculation of what timber would be wanted for the Bridge which Casper Dreilick went to bespeak.

15 At the Colliery, nothing to remark. The Carpenter, Arvidson, Helsing, Holmstedt, & Boos, as well as John Lundquist together with the 4 Waggonmen are all employed at the Bridge.

16 Two of the Timbermen at work with the Float which was got ready this Evening - the rest employed on the Bridge, laying the planks &c. &c. A melancholy accident happened this morning, at the Försökst. A Boy, Johannes Winkler going down to work, in attempting to steer the Corve got his wooden shoe fast between the slanting deals about 2 fathoms from the mouth of the Shaft, & the Corve swinging he fell down and was killed. The mother of this Boy (who was 13 years of age) has before lost 2 husbands in a manner somewhat similar - Two men were with him in the Corve, but having their backs to him, of course could not save him.

Winklers
Boy

17 To day Major Gram held an Inquest, or Försök, over Winklers boy, & after examining several witnesses, it appeared that neither the Brakeman, nor any of the Banksmen were in the least fault.

1822.

(59)

March 18

53 inch
Bucket

The 53 inch Bucket changed this morning. 6 Waggon
hired from the Boors in Hjöröd & neighbourhood to drive
stones from the ground at No. 17 & Association to the
Sinking pit. At the Bridge they are going on very
fast & this evening, after having got the float out
set down 2 poles. — A Bark from Prussia, bound to
England with Deals, Balks, & Wheat, drove on shore
near the Harbour, but was soon got off again. —

19 Very stormy weather so that they could not work
upon the float ~~with~~ at the Bridge; but in the forenoon
were employed upon the Bridge with the Waggon way
&c. In the afternoon they were all at home.

57 inch
Buckets

Changed the 17 inch Bucket again this Afternoon
the broken one still remaining in the working barrel.

General
trotting

20 My Uncle returned from Helsingborg this evening. At
the Colliery nothing to remark — except that this Evening
is the general trotting. — The men at the Bridge busy with
the railing & Waggon way, as it still continues to blow
too hard for them to go on the float. ~~Aggravated~~

21 A good deal of timber & planks came to day from
Långaskog for the Bridge — where the wrights are at
work as on yesterday. At the Engines nothing new.

22 To day My Uncle returned to Ålborg. — As the weather
yet continues so that the float cannot be used, the 4
Waggonmen were sent to fill the new Waggon way
to the Sinking pit. The Nordbergs at work with the
ground for the ~~engine~~ ^{machine} at the Sinking. — At the 53 & 28
inch Engines all in order. — The 45 is now also
ready to be set agoing when necessity requires.

23rd Today it still continues to blow, so that the Carpenters
cannot all be employed at the Bridge; wherefore 3 of
them began to remove the Gin from its socket to the new
Sinking, or Hazard — the other 2 busy repairing the 2
Waggons which were saved or rather driven ashore in
the late Storm. — As it blows now continually, postponing

Gin

March 23 fastened the float better, & also took an Anchor & rope to moor her. - The engine going well.

24 The Men ready - but on account of the storm could not work on the float.

25 Ditto - Ditto - Putting 4 Boards at the small waggons.

26 The Storm continues - The Water is nearly down at the 53, & the Enginemen at putting the 45 inch Engine in order - At the sinking pit all goes well.

27 This morning the weather being milder they got down water down 2 poles at the Bridge - & this morning the water at 53 Down at the 53. - 2 Masons at the Ground. -

28 4 of the Carpenters at the Bridge which is now nearly ready, & the 5th (Jons Lundquist) bespeaking timber for the 2 new 1/2 Chalden waggons, instead of those lost in the storm - The water down at the Engine.

29 The work going on much as yesterday when they got 9 poles down & now only 8 remain, which as soon as the weather will permit are ready to be set. The Bridge mean time is ready as far as the first loading holes - 3 men at the Gin at Hazard. -

30 This morning landed the first Boat since the Storm took away the Bridge - & also stoppt the damm to the 53, (the water being down, ^{by Buckshot} in order to get up the Bucket which broke on the 5th inst. & has been down ever since. The Linkers in the Hazard pit got thro't to the drift this morning, so that they could get into the drift while springing or shooting up the bottom instead of coming up the shaft - a fine rain all this day. Wind S.W. 13 Carpenters at the Gin.

April 4 Today My Uncle returned from Helsingborg - Changed the 53 Machines Bucket - nothing otherwise to remark.

5th Obliged to change the Bucket again at the 53 inch Engine.

9th My Uncle returned to Helsingborg again - The sinking pit and all else at the Colliery in order.

11 Put a ring on the 17 inch pumps, out the 8th flange they being airtight - The Gin finished at the Hazard except the Rore being put on with which we wait until Sunday, as the linkers will not then be hindered - Mean time Arvidson has taken down the Pulley wheels at Restoration's Machine, & begun with that at 17th in order to remove her to the new pits - Helsing & Jons at the Harbour making the 2 new 1/2 Chalden Waggons.

1822.

(61)

- April 12th Cleaned the flues at the 53 inch Engine - Arrivison & Böös at the Machine at No 17. which is taking to pieces as fast as possible - Lifting at the Sea with the new Waggons. - To day begun to timber in the Stone Drift (and a ~~piece~~) in the Frösöket. -
- Backe Gärd was today taken possession of by a Mr. Askelin who has bought it of the Colliery; in whose hands it has been many years. -
- 13 Drove the Boiler up from No 17 to the Hazard. also took out new 5 1/2 inch ropes for the Gin
- 14 which were put on to day & the Ground for the Machine was finished.
- 15 Arrivison Böös & Holmstedt at the Machine at No 17 - L. Norberg & others breaking up the Boiler seat. & this afternoon got the Boiler in her place at the Hazard. where the Gin was set to work for the first time - The Water being down Cleaned the Sump in the Shaft Lett. D. (or 45 inch Engine), which has not been done for a very long time - the Engine having stood almost 1 1/2 years. -
- 16 Last night changed the Bucket at the 53, when Frey put down a new Bucket shank, with a joint in it, so that there may be less danger of its ^{getting} fast in the working barrel, the latter being so much worn, & he thinks by means of the joint the bucket will have more room to play - The Timberman employed as yesterday & nothing otherwise to remark.
- 17 All the timbermen at the Bridge which required a little more repair. - Every thing else goes on well. (Lötting)
- 18 The Sinkers finished ~~working~~ the Drift this last night in the Hazard & began again to sink down to the Coal which is about 3 1/2 fathoms below the Drift. Arrivison &c. at the Machine! & Lifting & joining at the 2 new waggons. - The Engine this morning goes well & keeps the water down. as also the 53
- 19 All in good order.
- 20 Ditto Ditto. White post in the sinking Hazard.

Stone?
Drift!Gin at
HazardSump
in 45 in
EngineBucket
at 53
new
shank

- On Friday To day my Uncle returned from Helsingborg.
 At the Colliery, nothing to remark.
- 22 Packed the Air Bucket at the 53 inch Engine.
- 23 The Machine & Sinkings go on well. To day my
 Uncle was up and laid down at Bank the East
 Mothergate & Headways of the Pit Forsöket.
- 24 Changed the 17 inch Buckets at the 53. it was old
 leather that was put down last, viz. the 15th inst.
 My Uncle returned to Helsingborg.
- 25 Today nothing particular to remark at the
 Colliery - the Engine going well & farpenters
 employed at the Machine at Hazard.
- 26 Got the water down at the 53, all else in order
 A Mr. Ehrenpreutz, (Bricks patron from Jönköping)
 was here to day and in my Uncle's absence I showed
 him all that was to be seen; but at being Sunday he
 could not come down the pit to see the underground
 work - Shortly after he had been here my Uncle
 came home & returned this Evening to Helsingborg.
- 29 Changed the Bucket at the 53 this morning, nothing
 otherwise new.
- 30 Begun to take up the pump which was put down
 in the Staple in Restoration in order to bore it again
~~xxx~~ - which can be done here - The Timbermen at
 work as usual - viz. 3 at the Hazard - Hellung at diff.
 work, & Jons at the Wagon way.
- May 1 The water being doing down at the 53 inch Engine
 Fred stoppt her, to wedge the Beamhead, & to which
 were taken the 3 joiners from the Machine at Hazard.
 Hellung is at the Majors, & Lars Norberg is at the
 Stable at Ryd. The old man ^(Norberg) doing nothing. Yesterday
 a Boor paid 200 Riksd. for having received stolen
 iron from the Colliery & the smith that left it him
 was punished with 35 stripes. ~~xxx xxxxxx~~
- 2 At 8 last night the Engine was started & goes
 well - The Iron pump was today taken up from
 the Staple in the Restoration, & transported it to
 the Sinking pit where it was taken up in order
 to be sent to the Smiths shop.

1822.

(58) 63

May 3rd This morning my Uncle came from Helsingborg & returned thither this evening. The Engines & all else at the Colliery going well. The wrights nearly done with the Cistern for the Machine at Hazaro - One of them (Holmstedt) & Johan Bergman went to Landskrona to put the Machine together for the Steam packet.

1820 ^{Hand Rose}
ft in: ft in

Remarks

May 14	-	9	-	=
" 15	-	17	-	a
" 16	-	3	8	
" 17	-	4	3	
" 18	3	10	-	-
" 19	2	2	-	-
" 20	1	3	-	-
" 21	-	9 1/2	-	-
" 22	-	-	-	8

The water down at Ryd to 22 ft. 5 feet inches
& the Engine gone well. —

