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the influence of the faults?—I think it is owing to the influence of eruptions that the change in the coal is brought about, and I think to the dip, the same side as we have worked, of the Taylorville fault it will all be the same. The coal will not improve anything to the dip; but my impression is, judging from the other two mines, behind the fault it will be very much better. 3566. That is the dip fault from the Wallsend?—Yes.

3567. The principal part of the coal lays down there—the Taylorville Estate?—Yes.

3568. Are you aware of a slate boundary at the back, to the eastward?—Yes.

3569. How near to it was the mine worked?—Well, going in the eastward levels, we are not a long distance from it, perhaps 200 or 300 yards.

3570. The Chairman.] Do you think it possible that may have influenced the coal?—I do

think so.

3571. Mr. Brown.] Had you to do with the Brunner or Coal-pit Heath?—I have worked in them, but have not held any official position there. I was a miner in the Brunner a number of years—more or less, seven years.

3572. Were you in the Brunner at the time of the stoppage?—No, I was in the Wallsend

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## Tuesday, 4th November, 1890.

Mr. Thomas James Waters, C.E., M.A.Inst.M.E., F.R.G.S., examined.

Witness: I am managing engineer to the Westport Coal Company at Westport. I have charge of the landing of coal into the railway-wagons at the foot of the incline, and am also in charge, as mining engineer, of the Coalbrookdale Mine. For this I have a certificated manager under me—Mr. Brown—as mine-manager, and Mr. Cameron as underground manager. Another mine is under my charge—namely, Granity Creek—which is not yet opened. The Coalbrookdale Mine area is about 2,800 acres, 85 per cent. of which area is coal-bearing. Of this area only about 100 acres has yet been worked. The Granity Creek area comprises 3,000 acres, about 80 per cent. of which contains available coal. The seam in Coalbrookdale is from 4ft. to 26ft. thick; but in Granity it reaches a thickness of 36ft. In Coalbrookdale are indications of a split of the seam into three parts, and also of a second distinct seam called the "Banbury Seam," which averages 5ft. in thickness. The average thickness of the Coalbrookdale seam is 17ft. I have had charge of the mine since August, 1885. Last year the output was 163,000 tons up to the 1st July, 1890, and in the previous year 130,000 tons. At the former date there was an average of from 400 to 410 hands of all kinds employed, 250 of whom were hewers. All the men are paid fortnightly in Denniston of all kinds employed, 250 of whom were hewers. All the men are paid fortnightly in Denniston of all kinds employed, 250 of whom were hewers. All the men are paid fortnightly in Denniston of all kinds employed, 250 of whom were heaven of men leaving the place. The wages for in cash. No cheques are given except in the case of men leaving the place. hewing are 2s. 10d. per ton on whole coal. No difference is made for the cost of hewing top or bottom coal from the seam; but an allowance of 6s. per yard is made to the hewers for heading-work, calculated 9ft. wide. This is a payment over and above that for the coal-getting. The truckers get 10s. a day, with 6d. extra for lights; and the other hands are paid 10s. per day, except mechanics and tradesmen, who are paid as follows: Enginewright, £4 per week; assistants, 12s. per day; smiths, 12s. per day; masons, 12s. and 10s. per day; carpenters, 11s. per day. Formerly the miners were paid at the rate of 3s. 10d. per ton on screened coal and its equivalent, as 2s. 10d. on whole coal was ascertained by trial. The change was made at the request of the miners about four years ago. There is no rule for this equivalent, as it varies greatly in different mines, and even in different parts of the same seam. In considering the output of coal by hewers it is necessary to distinguish before and after July, 1890, as at that date the union rules imposed a double restriction on the men-first, that no man should average more than nine boxes of 12cwt. each per diem; and, second, that the average output of the whole mine for any week should not exceed the weekly average for the previous six months. Notice of this was given to the manager by the secretary to the Miners' Association. Mr. Brown, the manager, can give particulars relating to this. Before this restriction the average for the first six months of the year was nine and three-quarter boxes of coal per day per man. Since the restriction was enforced by the miners' union the average for the month before the strike was seven and a half boxes per day per man, which was below the limit fixed by the union. The total loss caused to the coal company by this was  $77\frac{1}{2}$  tons per diem, or equal to the work of seventeen extra hewers. Formerly some men filled thirteen boxes when working in the top and bottom coal, which is the easiest—easier even than pillar-working, such as at the Brunner. I mean by this that where the seam is too thick to reach easily either the top or the bottom 8ft. or 10ft. is first taken out, according to the nature of the roof or floor. This mode of mining involves double timbering, by short props in the first instance, and then by long props. The employés put in these timbers, but they are supplied to them at the face by the company. Before the restriction the time worked at the face was eight hours. Except when there was a double shift in some places only seven hours and a half was the time actually worked by each pair of men. After this restriction the average time was reduced to six hours. In general double shifts are worked. The wages made before the restriction may be reckoned by this return. [Return produced and marked "Exhibit No. 36."] From this it will be seen that the average earning for six months by hewers was at the rate of 15s. 7d. per day per man, but if the top and bottom coal is excluded from this calculation the earning would be reduced to 14s. 111d. The men have to find their own powder, fuse, and light out of their earnings. These deductions amount to 1s. The average distance the men have to truck from the face in the Coalbrookdale Mine is 20 yards, instead of 50 yards as in the Brunner Mine. The highest daily earning per man in top and bottom coal was an average of £1 2s. 4d. for each man of one party during six weeks. Another in the same period earned the same, another £1 1s. 8d., and a fourth 19s. 4d. per day. This was for a period extending from the 10th May to the 7th June. At that time they were working seven hours and a half on the face. These men were working full time—