

289. What was it caused you to give your attention to that?—The company sent for me to report upon the workings.

290. Did you go through all or most of the workings?—I went through as much of it as was not flooded with water. I thus got through three-fourths of it: within about a chain and a half or two chains of the deep part of the workings: within two chains of the lower level.

291. This particular drawing on the wall is prepared by you, is it not?—Yes.

292. As some reference may be made to it, will you tell the Committee from what sources it is prepared: it does not exhibit surveys of your own?—This survey is the copy of a survey made by Mr. Bell, of the Public Works Department, who took all the soundings.

293. The soundings, rocks, and contour of the shore are taken from a survey of Mr. Bell, of the Public Works Department?—Yes.

294. The further inland portion of the working is taken from your own surveys under the Geological Department?—Yes.

295. The seaward workings of the upper seam are taken from that source?—Part from Bishop's survey, part from Bell's survey, and part from a survey made by Twining on behalf of the Government.

296. The dark shading represents falls as represented by Mr. Twining's survey?—Partly.

297. All these workings marked upon it, you do not vouch for their accuracy?—No.

298. What does the red indicate?—A lower seam of coal below that marked black.

299. The lower seam you surveyed yourself?—A portion of it.

300. With what object did you survey it?—I, was instructed by Mr. Williams to bring forward the plans up to date.

301. When?—I think about March, 1884.

302. Mr. Taylor, the surveyor of the company, had left, and you were asked to carry forward the survey to date?—Yes.

303. Had you occasion, in bringing the lower seam-survey to date, to examine Mr. Taylor's work in connection with the portion of the lower seam that was already plotted?—Yes.

304. Had you occasion to check it?—Yes; I found Taylor's work correct. I think there were only some two or three links between us.

305. You would judge, from what you found, that he was a competent surveyor?—Yes; I think it came in very well.

306. Have you looked at his plan of the seaward workings of the upper seam?—No.

307. When a surveyor is kept at the mine, it is his duty to put in the workings from time to time as they are carried forward?—Yes.

308. About how often?—About every three months.

309. Supposing that had been done here [indicating on plan], what would you say as to the propriety of the workings shown here—I mean with regard to leaving support?—There is ample support left there.

310. I would ask you just to look at this, having that in your mind [plan produced]; can you see what difference there is between these two plans?—Yes.

311. Can you suppose this is made correctly from the same survey, supposing that to be correct?—No; I know this is wrong, because it is an exaggerated survey. Everything is exaggerated about it. I think I have stepped several of these bords on the south side, and found them only 16ft. The way this survey is made up is: that in driving bords men are limited to a space by the mine manager of 16ft, while men in driving have a trick of always eating and widening out. If left for a few hours they will perhaps be 2ft. too wide, until the oversman brings them in, which he would do during the shift. It has been carried on in an apparent spirit of vindictiveness to make the very worst of everything.

312. That is your deliberate judgment?—Yes.

313. You have checked that by pacing some of these bords?—Yes.

314. The wide places have been carried forward through the plans?—Yes. In fact, Mr. Taylor told me that while the survey was going on he drew their attention to one or two places, and they gave in in one or two places.

315. You always find in the walls of bords a certain amount of irregularity?—The usual way is to take the average.

316. You are an experienced mining engineer, and have had mining management yourself, and have also done surveys, and you say you went through these workings?—Yes.

317. Did you satisfy yourself on the subject of the sufficiency of the pillars?—Yes; I did, and reported on them.

318. Can you say, speaking generally, whether this plan, signed by Twining, fairly represents the pillars from the point of view of their sufficiency?—No; it does not represent the average: it is exaggerated.

319. To what extent did you find actual error in the represented width of the bords?—I found the bords averaged about 16ft., all that I stepped.

320. Is that a proper width?—Yes.

321. What was the thickness of the pillars left in that way?—From 25ft. to 30ft.

322. You examined the upper seam carefully on this occasion, I understand?—Yes.

323. What did you find to be the state of affairs there?—I found the water to be up in the workings within about a chain and a half above the lower level.

324. Did you find that the water had had any effect upon the measures?—It had swollen the shales, and there was mud about a quarter of a chain in advance of the water. Pillars, in the instances I saw, in places, had sunk about 1ft into the shales, leaving the roof no support at all. It was caused purely by the water lying there.

325. What are your views on the subject of letting water into a mine where the shale is of this character?—It is ruin to any mine.

326. Something has been said about the mechanical effect of pressure of water—hydrostatic