Have there been any cracks in the ground during the construction of the works ?-I cannot say that

76

1469. There were no indications whatever in the north-west part of the building?—Nothing

more than small cracks in the clay.

1470. Mr. Lawson. Please look at this plan [produced] of this foundation where it is shown as slightly inside the lines. Can you account for that dent in the concrete ?-I should account for it in this manner: if the trenches were allowed to stand overnight they would swell in as much as 3in. in some places, and we had to put on the lines and recut them before putting in the concrete.

1471. How do you account for that swelling?—Owing to the soft nature of the ground.

1472. Supposing that there were inequalities of level in the floor, could that not be caused as readily by lateral as by vertical settlement?—Yes, just as easily. It is highly probable, if the north wall had bulged, for the floor to be dragged out of level.

1473. Would it be much more likely that lateral pressure to the structure would cause the displaced levels?—Yes. It would cause the floors to buckle out of level.

1474. Mr. Skinner.] I suppose, from what Mr. Blair infers, that the footings were scamped in order to save expense?—I do not infer anything of the kind.

1475. Considering that the building was carried regularly up all round, would there be any saving of expense to tooth instead of bond it?—No. It costs more to form a toothing. It would have been just as easy to have carried the bond round.

1476. Then the reason that Mr. Brindley gave you for carrying up the angle which occurs here

[indicated on plan] was that some future extensions were to be carried out?—Just so.

1477. Mr. Mountfort.] I should like to ask a question about the concrete. You have told us that certain proportions were used. Will you please state them again?—Five of metal and Shag River ballast, mixed, to one of cement.

1478. After the gravel, was there any sand used? One man has told us that there was, and another said there was none?—I can explain that. Before the first lot was put in Chain Hill sand was used in the metal; but after we got Shag River metal we did away with the sand, because the

gravel is very fine.

1479. You have told us that the crack on the top of the concrete wall was seen by you before the brickwork was put on it. Can you tell us about the time when you took notice of the crack. I do not want you to say to about a fortnight, but tell us about the month and year that you noticed it?—I really cannot say. It is such a long time back that I would not like to say within a month.

1480. Was it in 1881, 1882, or 1883?—I think it would be in 1883.

1481. Then you say it was first seen in 1883?

Mr. Lawson: There is a letter of Mr. Brindley's referring to it, and I call on Mr. Blair to

Mr. Blair: I have put in all Mr. Brindley's letters. It is not in his letter-book.

1482. The Chairman.] Was it only one crack that you noticed?—I think there was only one crack noticed at that time.

1483. Would you infer from there being only one crack that it was caused by the pressure of earth?—I should have done so, in all probability, at that time, but not since I have seen the

further damage that has been done to the building.

1484. Mr. Mountfort.] You have stated that Mr. Brindley ran a drain through the ambulatory in the centre of Block 2. Did he run it from west to east, or did it go here [indicating on plan]? -He ran it from the centre of the north ambulatory, carried it underneath the back wall, and brought it up into the airing-court.

1485. What became of that drain at the east end?—I am sure I do not know. I do not

know whether it connected with the foul water that drained into the ocean or not.

1486. I want to know if you saw water coming out of that drain?—I do not think I ever noticed it after a storm.

1487. Did Mr. Brindley run in a corresponding drain in a similar part of the ambulatory drains further south?—I believe he did.

Mr. Lawson: It was done in each case.

1488. Mr. Skinner.] Do you think, if the foundations were put in as per specification, that boxing would be necessary?—Do you mean underground, sir?

1489. Yes?—No.

1490. How would you be able to make your set-off?—Just look at the drawing? If a set-off were used, most decidedly I should have used boxing above the footing course. 1491. But all through the building there is no footing-course?—Not now.

1492. If carried out per plan, you would?—Oh, yes!

1493. The Chairman. Did you state in your evidence by whose instructions the footing-course was left out?—By Mr. Brindley's instructions.

1494. You received your instructions from whom?—Mr. Brindley. In fact, he and I set out the whole of the foundations together from the time I arrived on the works until the building was finished.

1495. Mr. Gore.] Do you remember the water overflowing the building at the back, during a time of heavy flood?—Yes.

1496. Were occurrences of that kind noted in your diary or note-book?—I should call it a rough memorandum-book in which I jotted down anything that cropped up.

1497. The Chairman.] Do you produce it?---I am perfectly willing to hand it in as an exhibit. 1498. Mr. Gore.] I would ask through you, Mr. Chairman, if the witness remembers an occasion when there was a sufficiently heavy rain to cause a "block" on the railway and to flood the building?—Yes. It was in May, 1883; I should say about the end of that month.

1499. Will you describe what effect the flood had at the south end of the building?—At the

south end particularly the water came right through the building and flooded all the floors.