

2991. Did you see the drain-pipes laid in front?—No; I was about there very little at the time of the construction of the building.

2992. You say you are always easing the doors in the north wing?—Along this line mostly.

2993. Can you point out what doors you have had to ease? Take these three cells there—20, 21, and 22?—Well, I have had to strip the tops of them. I have had to take it off the left-hand top corner, looking at the door from the passage. I have had to cut some doors on the bottom as well.

2994. You do not recollect which door?—No. On this side of the recess—the south side of the projection—the day-room doors were eased in the opposite corners.

2995. The doors leading in the north wing?—There is a door I had to alter to-day. There is that door—the door of cell 18. I had to file the bottom of the striking-plate post-head on the bottom side to let the bolt of the lock get in. The large door leading into the day-room, in the north from the ambulatory, on the ground floor, it got jammed on the top on the north side, and I had to take a hammer to knock it out, and I had to cut an inch off it. The step was bulged up, and I had to plane a bit off it.

2996. Have you often to go up on the roof?—Well, I have been up.

2997. You were up there the other day. Have you ever looked along the ridge of the roof before?—Yes. The other ridge is pretty correct, but you know it is a little up. Where the building on this side—the south side—stood splendidly it is not even straight; it has gone a little up in the centre.

2998. When you first went up, did you notice that?—No; I did not take any particular notice then, not up there.

2999. *Mr. Gore.*] This stringer you spoke of as being put across here and bulged inwards—if this wall was pressing down-hill and pressing this stringer against the concrete floor, would that have the effect of bulging it as you describe it?—It was crushing in. The pressure was endways of the board.

3000. With the crushing-in and bending inwards did it leave the cement of the concrete floor?—Yes, certainly.

3001. It went away from the concrete?—Yes; in there, not here. It kept to the concrete here, and bulged it up.

3002. How long was it after you took possession of the building before you had to ease any of the doors?—Very shortly after we went into it.

3003. How long: Six months or three months?—Less than three months after the patients went into it. Of course, before that I had nothing to do with it.

3004. Can you give us about the date?—No; I took no particular note of that.

3005. Can you not say whether it was at the beginning of 1884, or at the end, or when?—Shortly after the patients went in, I know. I could not say more particularly than that.

3006. *The Chairman.*] How many weeks or months after?—It might have been three months. I could not say with any accuracy.

3007. *Mr. Gore.*] You say it is three years ago since you first noticed these ambulatory piers going out of plumb?—It was somewhere thereabouts, because they were pretty straight when we went there first.

3008. Can you tell what was the cause of their going out of plumb, whether vertical settlement or pressure at the back?—I think vertical settlement. I think there was vertical settlement here [pointing to plan]; and I am sure there was there.

3009. Have you levelled it?—I can see the way the floors run. You can see without a level that it is a trifle forward, and that it has left that back wall.

3010. If you were told, Mr. Reid, that this ambulatory which is 80ft. long, only started $\frac{1}{2}$ in. from end to end, from one end to the other, would you think that that $\frac{1}{2}$ in. of vertical settlement would cause the piers to be thrown out of plumb?—I think it would, and I can give my reasons for thinking so. One $\frac{1}{2}$ in. of settlement means far more of push. It means $\frac{1}{2}$ in. on each space. It communicated the force from one pillar to the next, and the next, as it has done, and as I have noticed it right along. In the first place the settlement came gradually on, and came to the north end of the colonnade.

3011. This colonnade is 80ft. 6in. from end to end, and if it settled $\frac{1}{2}$ in. at this end in the whole 80ft., would that account for the piers?—If it was one arch it would affect it very little indeed.

3012. If you were told that pier No. 1 and pier No. 7 are the same level exactly, how then would you account for the piers being out of level?—I should still say it was vertical settlement.

3013. How do you account for that push otherwise? The building is crushed right up to the south?—I said, or meant to say, that this—meaning the north-east wing—must have crushed to the south (not the whole building); that was provided you did not accept vertical settlement.

3014. It is crushed to the south?—If you do not accept the settlement theory.

3015. Then we will say that we do not accept the settlement theory?—Then I cannot account for it otherwise.

3016. Then, if it is pushed to the south, how do you account for having to ease the doors at the south end?—Because the force might have been greater there. It will have the same effect. I may say that $\frac{1}{2}$ in. means equal to $\frac{1}{2}$ in. of outward pressure to each of the arches you have there. It has evidently done that, because this pier is not so far off plumb as the next, and so on. I would not be convinced of anything else, at any rate.

JAMES MARCHBANKS sworn and examined.

3017. *Mr. Blair.*] What are you?—Assistant-Engineer in the Public Works Department.

3018. Are you an authorised surveyor?—Yes, an authorised and licensed surveyor.

3019. Were you making a survey on Seacliff in 1884?—Yes.

3020. In what month?—February.