H.-7.58

902. Would one be as probable as the other?—It is quite possible, because you have these two piers level. If these two piers are level now, the caps must have been put on level. Again, it is quite possible that the line may have sagged when the plasterers were striking the line there.

903. Is it possible to have been built that way?—Yes.

904. You would not consider ½in. in 78ft. a great deal for a plasterer to be out of his level?— No, I should find that true for that distance.

905. You have not seen this north wing lately?—I have never been to the building since

June, 1883.

906. If I were to tell you that there are very extensive cracks indeed in this north wing, even in the front of the building, could the settlement of this  $\frac{1}{2}$ in. possibly have caused those cracks?—I do not see that these cracks have anything to do with that at all, unless the ground has shifted bodily forward.

907. Your answer is that you do not see that this has anything to do with the front of the

building, unless the ground has shifted bodily forward?—Yes.

908. Knowing the levels of the ambulatory—and I may tell you that is the only place we know the levels of, from all the evidence that has been produced—knowing that that is ‡in. out of level, and that the piers are staggering in all directions—some in and some out—and that there is a great pressure of earth at the back of the back wall, would you attribute these piers being thrown out of the perpendicular to the pressure of earth at the back, or to the sinking of the foundations?—This, being level at present, shows no sinking of the foundation at all. It seems to have been brought forward, because this point is level, and so is this point. If those points are level, then it must have come from behind, unless the ground was slipping underneath altogether.

909. Now, taking also into consideration that these piers, as I have told you, have cracked, the superstructure above remains perfectly quiet, without any sign of cracking, and that the windows are also perfectly plumb?—That proves conclusively that the foundations are standing—at least, standing level; and, whatever movement there is, it must be from the earth below. It is very

evident the foundations have not sunk if this pier (No. 7) has not sunk.

910. If the foundations of this ambulatory, north, and also this one north and these two south ones, are all put in alike, would you blame the concrete if one of them settled and the others did not?—You could not blame the concrete, because the concrete was all put in the same depth and quantity.

911. Then, if I were to tell you that these three ambulatories do not show signs of crack, but that the extreme north one does, what would you attribute it to?—Movement of the ground. That

is all I could attribute it to, because the building had not moved itself.
912. Supposing this had settled vertically?—The building seems to have gone bodily forward through the pressure of the earth behind, or a stratum of water underneath breaking through the formation.

913. You see this back wall acts as a retaining-wall for the earth at the back, the building being only two stories at the back and three at the front. There is one story with the earth against it. Do you know of any similar case in Dunedin, where the wall was built with the earth behind it, giving way: I am referring to Walter Guthrie's?—Yes.

914. You know that wall gave way from the pressure against it?—There were no weep-holes

915. Do you know what sort of ground that is?—You can scarcely tell. In fact, all the back part of the town has partly moved.

916. Do you know has the wall been since rebuilt ?—I could not say for that.

917. Then you think that a wall acting as a retaining-wall, as this is—that water trickling through the loose soil would have a tendency to push the wall over?—Water, of course, would seek a way to get to the lowest level, saturate all down here, and, if the rock was lying at a high angle, or greasy clay, would do it.

918. But it is a supposition that this wall has moved forward: would that account for the

piers being out of plumb?—Yes.
919. Without regard to vertical settlement?—Yes. This wall might stand, because you have it

tight here and bound together.

- 920. If the foundation of this north block has not settled vertically, what would you attribute the cracks to?—The only thing to attribute them to is simply to the whole block slipping forward. It would move, perhaps, quicker at one part than at another: it depends on the lay of the strata
- 921. During the ten days you were at Seacliff taking these measurements did you observe how the building was constructed, or how the work was carried on generally?-Well, I had not a great deal of time.
- 922. Did you observe anything about the manner in which the building was being constructed or carried on to lead you to believe the contractor was scamping his work?—No, I could see nothing of that kind. Everything was going on as usual, as far as I could see.

923. Did any one make any complaint to you that the building was being scamped?—No;

there was no necessity for doing so.

924. You think there was no necessity for doing so. Why do you think there was no necessity for doing so?—Because I think the building was going on right enough as far as I could see. I was not on the ground to see how the building was being constructed. My time was taken

up with the quantities to be got out.

925. There is one question that is very material that I had forgotten. I wish Mr. Blair to produce this ambulatory-plan—this "one-sided" plan, if I may term it so—the plan showing the foundations as constructed. [Exhibit No. 3 produced.] This plan was put in by the Public Works Department, Mr. Forrest. This is the north ambulatory—the extreme north ambulatory. This purports to show the foundations under the piers. If you had been making a drawing to show the