

*Mr. Blair* : Yes. There are not so many shafts filled with stones along in the front ; but behind the building there were two shafts filled with stone.

*Mr. Mountfort* : Can you point out the position of the shafts ?

*Mr. Blair* : The shafts in the second drain are numbered 1 to 9, and Nos. 4, 8, and 9 are filled with stones.

*The Chairman* : Cut right up and filled up to the surface ?

*Mr. Blair* : Yes. I now come to the position of the third drain, which is a gallery from the second one. Its position is a little below the level of the foundations. We were afraid that this drain (No. 1) was too high, and this one (No. 2) too low, so this third one was carried, as I have shown, a little below the level of the foundations. It has three shafts, coming very nearly to the surface.

*The Chairman* : They appear to break joint—they come alternately.

*Mr. Blair* : Yes. You will see that this top gallery drains into one of the shafts leading to the lower gallery.

*The Chairman* : They were connected ?

*Mr. Blair* : Yes. The three shafts immediately behind the building are vertical. There is also a branch drain from the top gallery. It is inclined towards the foundation, and carried in under the back wall to the middle wall, where it terminates.

*The Chairman* : That is the dotted line shown on the plan ?

*Mr. Blair* : Yes. The whole of the back of the building is on a slope, and the water is supposed to be intercepted by these drains. This drain (No. 2) is carried down to a great depth. As I have just stated, another drain ran parallel with this, but at a higher level—almost level with the foundations of the building—and shafts connecting the two drains and connecting the top drain with the surface were put down. This was done with the object of cutting through all the strata, so that all the water would be drained ; but the settlement has not stopped, and we are now of opinion that no drain behind, as suggested by Mr. Lawson, would be effectual in preventing the settlement, for we have given Mr. Lawson far more drains than were asked for. We have drained the ground in every conceivable way, and have given far more drainage than was ever contemplated by Mr. Lawson in his original scheme, although that original scheme had been abandoned by him long ago. We must therefore come to the conclusion that there is no ground whatever for saddling the Public Works Department with responsibility for not putting in this isolating-drain referred to in the published correspondence, for we have put in isolating-drains far more than ever was intended, and they have had little or no effect in preventing the settlement. The cause of the settlement must therefore be looked for in another direction ; so also must the cure.

*Mr. Mountfort* : Before Mr. Blair goes any further I should like him to tell us what sort of stones were used, and how they were filled in.

*Mr. Ussher* : We used large boulders ; then we put in manuka scrub, and covered that with clay. We used no tiles.

*Mr. Mountfort* : How were these stones got into these spaces ?

*Mr. Ussher* : Carried down the shaft.

*Mr. Mountfort* : They did not lay open to the air ?

*Mr. Ussher* : No.

*Mr. Mountfort* : How were the stones got into the shaft—by hand, or were they pushed in with sticks ?

*Mr. Blair* : They were built in backwards. The man who put them in will give evidence.

*Mr. Mountfort* : What is the height of that shaft ? Is it high enough for a man to work in ?

*Mr. Blair* : Yes ; it is about 4ft. high.

*Mr. Mountfort* : Being underground work—not done in the daylight—was there any possibility of “slumming” the work ?

*Mr. Blair* : No. The work was done by day-labour, under the supervision of our own officers. But evidence on that point will be given afterwards. To put it shortly : Mr. Lawson first contemplated an isolating-drain, and then abandoned the idea in favour of surface-drainage. We gave him surface-drainage in accordance with his own plan. When the cracks appeared he reverted to his original idea of an isolated drain. We have now given him isolated drainage far more than was contemplated, thought of, or dreamt of. It is therefore clear that, wherever the responsibility lies, it is not from neglect on the part of the Public Works Department in meeting the wishes of the Architect in the matter of the drains. Now as to the cause of the damage : Mr. Lawson has all through attributed the damage to what may be called *vis major*, the movement of the whole site. There are slips at various places on the asylum reserve and at other places in the locality, and a theory has been advanced that the whole hillside is on the move towards the sea. This theory does not, however, work out. It cannot be retained for a moment, for, if the whole hillside were on the move, the whole of the asylum would be on the move ; and there is no indication anywhere, except on the northern block, of movement or settlement. The settlement is really confined to some 70ft. or 80ft. in the length of the building, whereas the total length of the building is 570ft. We therefore see that it is quite impossible that the various slips which have appeared in the locality are connected : in fact, they are only such slips as appear in all similar country where the bush is removed. We have plenty of evidence of it on both sides of the Otago Harbour. There have been a number of slips of the same class down the Peninsula, and right up the coast to Waikouaiti. There is a small slip behind the asylum building where the excavation was made ; but this slip is quite shallow, and it has stopped long ago. It cannot possibly have any connection with the movement in the building : in fact, it would be absurd to assume for a moment that such a shallow small slip could have such a large effect as is manifested in the settlement of this ponderous building in front of it. It is utterly impossible that such a slip could reach the asylum, and, if it did reach the asylum, it would not have the effect of pushing down the walls. I visited the place in July, 1885, and, after careful examination, I came to the conclusion, as stated in my printed