

6038. Then, these are not observed figures?—No, they are not. In that case, perhaps they had better be struck out.

6039. Assuming these to be correct, what do you find as the cubic capacity?—For twelve patients, 1,733 cubic feet; for thirteen persons, 1,600 cubic feet; for fourteen persons, 1,485 cubic feet; for fifteen persons, 1,386 cubic feet.

6040. *Mr. Chapman.*] Then as to the space on the floor, the lineal wall-space?—There is no doubt about it, it is too small in the Dunedin Hospital.

6041. *The Chairman.*] Do you mean the bed-space?—Yes.

6042. *Mr. Chapman.*] Do you say that the beds are too close?—Yes.

6043. Have you made any calculations?—No. I have taken Mr. Wales's figures.

6044. Now, what is the next matter in order?—Well, taking the floor-space and the bed-space: what I wish to say is that one should also take into consideration that the same thing maintains elsewhere. What is practised is an evil, in fact.

6045. And elsewhere, have they found great inconvenience?—I know that the results in some of those hospitals have not been so bad as the results in this one would lead you to think they were.

6046. What hospitals do you refer to now?—I am now comparing our Hospital with such hospitals as the Liverpool Royal Infirmary, where the beds were very close.

6047. I suppose the number of bed returns for a hospital does not altogether represent the total number of patients put into the wards?—That is so. We had an example of that in Dr. DeRenzi's evidence the other day. I said to him, "You have occasionally more beds," and he said, "Oh yes, we sometimes have shake-downs."

6048. In Christchurch the cubic space is not more than in Dunedin?—I think it is more.

6049. Then, in comparison with Melbourne?—At the time I was in that hospital last, in 1884—I did not go through it when I was over in 1888—the beds, speaking from memory, or some of them, seemed much closer than the ideal standard. They seemed quite as close as in the Dunedin Hospital.

6050. Now, what are the matters in order of urgency?—We have dealt with ventilation and with floor-space, cubic space, and lineal bed-space. I suppose we now come to the baths and lavatories.

6051. Those you regard as defective?—I do regard them as defective, although the position of the waterclosets is practically the same as you will find in some of the modern hospitals. I have plans at home of the new Royal Infirmary, Edinburgh, and if you examine them you will find the waterclosets there are almost the same as ours, in the corner. They have no cross-ventilation, and they open directly into the ward by two doors.

6052. *Mr. Solomon.*] Have you the plan?—I have not got it here, but I will produce it later on.

6053. *The Chairman.*] You have not seen the hospital itself?—No.

6054. Are you aware they had to revise the drains?—I know that they had to revise the drainage underneath, but they did not revise the position of these closets.

6055. *Mr. Chapman.*] What doors have they?—I think they have the same kind of double doors as we have.

6056. Do they have a vestibule?—They have no vestibule.

6057. *The Chairman.*] Do you approve of that plan?—No; that is quite a different matter.

6058. Then you point it out as a defect that exists in a modern hospital?—I might say that what struck me in one hospital, that has been taken as an ideal one, was that right at the end of the ward they had almost a similar arrangement to what we have here. That was in Blackburn, and I saw it when I first went to that infirmary on a visit. I was there for about a week, and I went, I dare say, three times to it.

6059. *Mr. Solomon.*] What was the death-rate?—I do not know.

6060. *The Chairman.*] The arrangement was almost the same, you say?—It was practically the same. I have a distinct recollection of it.

6061. *Mr. Chapman.*] Blackburn is the home of hospital reform; they are a most energetic people in that way. (To witness :) When did you see the hospital?—My visit to the hospital was between 1865 and 1867.

6062. Do you know anything of the Roosevelt Hospital in America?—It possesses a faulty plan, in that the waterclosets are at both ends of the wards. The closets have no cross-ventilation. In the Bellevue Hospital they are worse still. [Plan sketched.] At the time I visited the latter, Professors Woods, Gourley, and Delafield told me that this was the cause of so many patients being in extemporised huts.

6063. Have you known any practical evil come of it?—I have not known any practical evil.

6064. But it is a threat?—It is. It would be better to have the closet so arranged that the suction of air would not be towards the ward but away from it. The air should be warmed there, so that it would draw the air to it and not impel it the other way.

6065. You would need a shaft overhead?—Yes.

6066. The baths are a defect?—Yes.

6067. A serious one?—I do not regard it as a very serious one.

6068. These are matters in and about the ward. What are the next defects in the Hospital, in order of urgency?—Well, in pointing out all the defects I should strongly object to the position of the kitchen.

6069. What is objectionable about it?—The effluvia from it rises and permeates the general building, more especially No. 3 ward. That is the ward immediately over the kitchen.

6070. Both the heat of the kitchen and the effluvia affect it?—Yes, and the flue connected with the steam-boiler as well.

6071. Does that affect all through the house?—Well, nearly every part.