

221. That is including the space between the next bed to the one on the other side?—Exactly. Ashurst says that at page 1096, and at page 1097 he gives 8ft. to 9ft. for surgical cases. Holmes, in his “System,” page 1033, gives 8ft.

222. *Mr. Solomon.*] Is the last floor space?—No, it is the bed-space. As to floor-space—that is, the amount of square feet per bed—Ashurst says that, for ordinary cases, 105ft. to 120ft. is required, and from 130ft. to 140ft. for a surgical bed. Erichsen gives it as a little less for ordinary cases, but he gives extra space for surgical beds. Erichsen says from 100ft. to 120ft.

223. *The Chairman.*] Is that all surgical?—No; 100ft. for ordinary and 120ft. for a surgical bed. Wilson, in his book on hygiene, says that 90ft. should be the minimum, but you must have more if a medical school is attached to the hospital. [Page 263.]

224. But he does not say how much more?—I do not think he does.

*Mr. Solomon:* He gives some illustrations. I will read this passage to you. [Passage read.]

225. *Mr. Solomon.*] You have examined No. 7 ward, have you not?—Yes. But I do not want to confine myself to that ward specially. I will take one of the ordinary wards. I have a reason for that.

226. Have you examined No. 1 ward?—I did. That is the one on the right-hand side going in.

227. Can you tell us what you found the length of the ward to be. That is the ward on the basement-floor? I will take the bed-space to begin with; we can all agree to that. The bed-space is 5ft. 6in. per bed.

228. Instead of a minimum of what?—This is a surgical ward, and there should be a minimum of from 8ft. to 9ft.

229. And the floor-space was?—1,250ft.

230. But that is the whole of the square space, is it not?—Yes.

231. Give us the floor-space per bed; we will give them the benefit of the whole of the space?—You will have to make a calculation of that for me.

232. *The Chairman.*] How many beds are there in the ward?—Fifteen.

233. *Mr. Solomon.*] It would be 83ft. per bed. How does that compare with the lowest in a surgical ward allowed by the authorities?—I should say 112ft. is the mean.

234. *The Chairman.*] You have told us that it ranges from 105ft. to 140ft.?—Holmes gives the lowest at 90ft., but he says that there should be more if there is a medical school. I think 112ft. is a fair average.

235. Now, as to the cubic space per patient?—It is a very difficult thing to calculate that, inasmuch as it is a question whether you shall calculate the bathrooms and lavatories as well.

236. Give them those in and the waterclosets too?—I am afraid that I cannot do that.

237. You made some calculations did you not?—They were always almost the same. I included the bathrooms and lavatories, but I have not included the waterclosets in any case.

238. What did you make the cubic space per patient?—The cubic space is 14,571ft., including the bathroom and lavatory.

239. And that is how much per patient?—910ft.

240. 910 cubic feet per patient?—No; I am wrong. You have fifteen beds in the ward, but you have a wardman in the ward also. In the ordinary surgical ward there is the nurse's room outside. I suppose you ought to include the wardman as well.

241. You say that there are 14,000 cubic feet in the ward?—14,500ft.

242. You must divide that amongst fifteen patients?—What I ought to do is to divide it by sixteen people.

243. But, divide it amongst the fifteen patients?—That gives 910 cubic feet per patient. That is allowing 12ft. effective height, as the authorities say should be allowed.

244. To what height did you take your measurement?—12ft. from the floor.

245. What is the additional height of the wards?—I think the downstairs wards are 16ft. high, and those above 15ft.

246. That is, 4ft. above the windows?—Yes.

247. *Mr. Solomon.*] That, you say, gives an average of 910 cubic feet per patient, while the lowest allowed in a surgical ward by the authorities is 2,000ft., and 1,200ft. in a medical ward. Now, in your opinion, does the calculation which you have shown us show a very safe state of affairs so far as crowding is concerned?—It does not. The hospital is very much overcrowded.

248. Take the surgical wards alone. Under such a condition of affairs do patients in surgical wards in the Dunedin Hospital have a fair chance of recovery?—Taking that condition of affairs alone, they have not.

249. Am I right in saying this: that the chance of infection, as distinguished from contagion—in other words, the chance of contracting disease by touch, the proportion that is carried to us is the precise ratio of the distance, and that it is exactly the same thing in the inverse square of the distance?—It may be, but I wish you would put it in a more simple manner.

250. Well, I can assure you professionally that it is so. Is it not the fact that through the patients being brought close together, through the reduction of the cubic space, the danger of infection is increased?—It is largely increased. I consider it most essential that the cubic space should be greatly increased.

251. *The Chairman.*] Is bed-space the most important of the three elements you have mentioned?—I should think so.

252. Are these fifteen beds always full?—No. I think one bed is kept empty in case of an emergency; then I suppose it is filled up. As a rule there are fourteen beds full.

253. *Mr. Solomon.*] That is the only respect in which the overcrowding of the ward has been altered?—Yes. Lately there has been a tendency to keep the wards specially crowded, with the object of having two of the wards empty. We wanted one of these wards for special cases, and