

499. In such a case as that could septic mischief arise in consequence of the faulty hygienic conditions despite the operator having taken every precaution?—Yes; that may happen after a severe operation, and despite all antiseptic precautions. I suppose you mean in a severe case of that kind; and in such a case I am not surprised to find septic mischief.

500. But you were able to cope with that, were you not?—Yes.

501. May I say that a dreadful operation of that sort would not be undertaken unless it were absolutely necessary?—It certainly would not.

502. Given a case in the Dunedin Hospital in which an operation of that sort was absolutely necessary in order to save life, and given septic poisoning, which one might anticipate might arise—as it did arise in that case that you refer to—do you think that under those circumstances you can reasonably hope to cope with it as you could if it had been in your private practice?—No; and I have remarkable proof of this. I have kept the reports carefully by me. The two cases I am about to refer to were very much on the same lines, with this exception, that the woman operated on outside was an oldish woman, while the woman operated on inside was a remarkably strong, healthy woman. The patient operated on inside died, while the patient operated on outside recovered.

503. Can you say what, in your opinion, caused the different results in those two cases you have just mentioned?—I think it was the insanitary state of the ward; that undoubtedly had to do with it.

504. In my opening remarks I gave an extract from Erichsen on this subject. I would refer you to that author at page 113.

504A. *Mr. Chapman.*] By the way, can you furnish me with the names of the patients you have just referred to?—I will give you full reports of all cases I have mentioned in my evidence.

505. *Mr. Solomon.*] Coming now to the general question as to the great importance of good sanitary conditions of an hospital, I ask you formally do you agree with Erichsen in this extract from his work in volume i.: “It is the difference in the hygienic arrangements in hospitals that, more than any other condition, influences the varying rate of mortality in different institutions, and it is obvious that, *ceteris paribus*, those patients will have the best chance of recovery who are most scrupulously attended to in this respect”?—Yes.

506. Do you agree with him where he says, “A sufficient cubic space, free ventilation, and clean wards are therefore the essentials of a healthy hospital”?—Yes.

507. Can you say whether the Dunedin Hospital complies with this description—a sufficient cubic space, free ventilation, and clean wards?—No, it does not.

508. Does it comply with any one of these descriptions? First, has it sufficient cubic space?—No.

509. Has it free ventilation?—No.

510. Has it good clean wards?—No—that is to say, if Erichsen means surgically clean, I say certainly not; and I suppose he does speak of the ward in a surgical sense. I do not think he means a dirty ward in the ordinary sense, but that the ward is not clean surgically.

511. Then, Erichsen further says, “The faulty hygienic conditions that are still too frequently met with in hospitals are alike a cruelty to the patient and an injustice to the surgeon. The cruelty to the patient consists not only in exposing him to an increased chance of death—or, as it is commonly called, to ‘a higher rate of mortality’—from septic diseases that are preventible, and that are the direct outcome of the defective hygienic arrangements of the institution, but in subjecting him to a prolonged and imperfect convalescence, either or both of which conditions may be taken as the measure of the neglect of sanitary arrangements in a hospital.” Do you agree with that?—Yes. I added that remark to the list of cases I forwarded to the Trustees.

512. There is another thing I wished to get out here. Do you agree with what I have said during this inquiry about the germ theory?—Yes.

513. Is it accepted fully amongst medical men that the cause of hospital infections, such as erysipelas, gangrene, &c., is the presence in the atmosphere of pathogenic germs?—That is undoubtedly the accepted theory of the day, though I dare say a few men will be found to differ on the point.

514. They are sometimes called micro-organisms, are they not?—Yes.

515. In every atmosphere these germs exist, do they not, to some extent?—Certainly to some extent you will find them, but at the top of high mountains they will decrease; but in certain conditions of still air they will settle, as Tyndall’s experiments show.

516. What effect on the liability to infection from this cause has the concentration in which these germs exist in the atmosphere?—The danger increases with their concentration.

517. What effect on the concentration of these germs has the presence or absence of a free current of air through a hospital ward?—To diffuse them—to send them away. They escape through the ventilators.

518. Are they more or less concentrated on account of a free current of air?—They are less concentrated with a free current of air.

519. You yesterday drew our attention to the condition of the Dunedin Hospital. In certain portions of it you said that there was extreme draught, and that in others there was continual stagnation. Is that so?—Yes.

520. Where are these germs most likely to originate—in a medical or a surgical ward?—I should say they were most likely to be generated in a surgical ward; undoubtedly so. Undoubtedly, I think that they are generated in a medical ward. They are given off from different diseases accompanied by pus-formation.

521. Sloughing wounds—what about them?—Multiplication of different sorts of germs occur especially if the case is not carefully attended to.

522. And burns?—Are very dangerous.

523. And sloughing wounds, I suppose, are also dangerous?—Yes.