4946. You think your experience is not sufficiently long to warrant you in expressing an opinion?—Not with any authority.

4947. *Mr. Solomon.*] I wish to call your attention to certain passages at page 15 of Oppert on "Hospitals," and to show you how nearly the Christchurch Hospital approximates to what that authority says is necessary: "As regards passages, they should be of a convenient width (9ft. to 11ft.), and ventilated by end windows, and warmed in winter time, as will be explained in another place. Lifts are used for raising food, medicines, clothes, &c., and their usefulness is beyond doubt. They are raised by turning a handle in smaller buildings; water-power is sometimes used. As regards patients, lifts are necessary in consumption hospitals, but I should not consider them of paramount necessity in general hospitals; they are even not much used where they exist. Linen shoots of earthenware, which may also be used for the dust, are much to be recommended. As they are placed close to the wards, all dirty clothes and linen can be removed easily and at once to a place where they can do no harm. The arrangements of the wards require our earnest attention. Their dimensions and the furniture they should contain must be principally considered. We want large and small wards: the first, because they are more healthy than many small ones, and the cost of their construction is comparatively less; and, moreover, supervision, attendance, and cleaning are more easy. The wards must, however, not be too large; they may by this become uncomfortable to the patients and difficult to superintend. A number of about thirty beds, sometimes a few more, sometimes a few less, is now generally considered as most satisfactory in every respect. The door of such a ward should not be narrow, but of a convenient width, so that you may pass in or out comfortably, and patients can be conveyed through on bran-cards without being in danger of coming into collision with the door-frame. Swing-doors are usually preferred. Necessity for a louvre over the door will be considered in the chapter on ventilation. As regards the windows, they should be opposite, along both sides of the ward, and no ward should be considered to come up to the standard of modern improvement unless this is the case. It is further advisable to construct the windows in such a manner that each bed stands between two windows. It is better that the beds should be separated by and receive light from two windows. It may, however, not always be convenient to have so many windows in the building, and sometimes there are larger and wider windows which allow two beds to be placed between a pair of them. The windows should be high, extending nearly to the ceiling, so that the upper strata of foul air can easily find their way out when the windows are lowered a little. They should reach nearly to the floor, else the patients do not breathe the air unmixed with that of the ward when the lower sash window is raised in mild weather. A distance of 3ft. 6in. or 4ft. will be found convenient. . . . The height of a ward in this country should be about 15ft. Lofty wards generally contain pure air; but if the ceiling is too high the ward loses the dimensions of a dwelling-room. In warm climates the height should be a little more than with us. The width need not be more than 26ft. or 28ft., because we want only two rows of beds. The length should correspond with and not be more than four times the width. As regards the walls, we sometimes find them merely whitewashed, without being plastered. This is the cheapest plan, and perhaps the most healthy. They can be plastered and whitewashed, but as plaster retains contagious matters they must be whitewashed over at least once a year. They may be oil painted, and the paint can be on the bare bricks, or on the plaster with which the walls are coated. In the latter instance, the painting must not be done before the plaster is perfectly dry; this may be supposed to be the case a year after it has been put on. Lastly, the walls can be coated with cement. Sometimes Keen's cement is used, which is of two different qualities; sometimes Parian cement, but this is more expensive than Keen's. As far as I can judge, they understand the use of cement better on the Continent (in Munich and Paris) than they do here, for the walls there are never blotchy. It is questionable if cemented walls are the most healthy ones. Cement can be either white or coloured and polished. These different ways of covering the walls can be combined." These passages were not marked for the purposes of this inquiry, but I used them for a lecture which I delivered four or five years ago.

4948. If you turn to Galton, at page 59, you will find this: "In ordinary hospitals the cubic space is practically dependent on the floor-space, for on this depends the distance of the sick from each other, the facility for moving about the sick, shifting beds, cleanliness, and other points of nursing. If there be a medical school attached to the hospital, the question of area has to be considered with reference to affording the largest amount of accommodation practicable for the teacher and his pupils. A ward with windows improperly placed, so as not to give sufficient light, or where the beds are so placed that the nurse must necessarily obstruct the light in attending to her patients, will require a large floor-space, because the bed-space must be so arranged and of such dimensions as to allow of sufficient light falling on the beds. In well-constructed wards with opposite windows the greatest economy of surface-area can be effected, because the area can be best allotted with reference both to light and to room for work. In a ward 24ft. in width, with a window for every two beds, a 7ft. 6in. bed-space along the walls would probably be sufficient for nursing purposes. This would give 90 square feet per bed, and there should be as little reduction as possible below this amount for average cases of sickness; but this space is too small for fever or lying-in wards. The practice in regard to area differs considerably in different hospitals: in the naval hospitals it is about 78 square feet per bed. In the Herbert Hospital, where there is no medical school, it is 99 square feet per bed. The cubic space which results from this, with wards 14ft. high, is 1,260 cubic feet. In the Royal Victoria Hospital at Netley, where there is a medical school, it is 1,030 square feet. In St. George's Hospital it is about 70 square feet. From this minimum it varies to 138 square feet in Guy's Hospital. In the new Hotel Dieu at Paris the space per bed is from 104 to 110 square feet, and in the new St. Thomas's Hospital it is 112 square feet. This latter area is considered sufficient both for nursing and teaching purposes. In fever hospitals, and in wards for bad surgical cases, where the emanations from patients are considerable, it is found desirable to afford a large floor-space, varying from 150 to 200 superficial feet, or occa-