

23. *The Chairman.*] Can you explain how it is that five hundred are mentioned?—That is a matter regarding which I should like to have known the reason. I asked them when I went up to the stores what was wrong with these uniforms, and they told me they had not received a report from the camp upon them.

24. *Mr. Gray.*] Except in regard to those thirty-two uniforms, have you ever heard of any other complaint?—I have not heard of any others.

25. Have you heard any complaint as to the quality of the material in your goods?—Never a complaint. We have put the best into the garments.

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J. CAMPBELL, Government Architect, recalled. (No. 130.)

1. *Mr. Gray.*] I think you want to make a statement with regard to the hutments?—Yes, sir, I should like to make a few remarks on certain matters in connection with the hutments. Since I appeared before you last a great deal of criticism has been passed to which I think the Advisory Board should have an opportunity of replying. I should like to mention the considerations that influenced the Board in deciding on certain matters in connection with the huts. A great deal has been said on the use of galvanized iron for the walls of these hutments. It has been stated that it is a most improper material to use without internal lining. Well, I will first of all mention a few of the advantages of galvanized iron as walling-material. It is non-absorbent—a very important quality for internal wall-lining. It has a clean, smooth surface—also an important sanitary quality. It has few joints. It does not shrink like wood, which has many joints. It is fire-resisting—a very important quality in an encampment where the huts must be fairly close together. It is cheap—it is cheaper than any other material that can possibly be used.

2. *Mr. Ferguson.*] Cheaper than timber?—It was, I should say, when the Advisory Board considered the hutments. It was cheaper than any possible material so long as the thirty-five huts were being erected which the Advisory Board had to do with. It has been suggested that we chose iron for the material when it was at £39 10s. a ton. That is nonsense. We did not pay, I think, more than £19, or perhaps £19 10s. I know for a fact that the thirty-five huts were each completed for within a few pounds of my estimate, which was founded on the normal price of iron. The huts since erected, I believe, have cost a great deal more, but iron has gone up enormously. When the Advisory Board considered the use of iron it was at its normal price, or not more than £2 above normal. The normal price was about £19, and some of the iron was got for a little over that: the bulk for about £19. Then, galvanized iron is quickly fixed: that was a very great consideration at the time. It can be fixed in much less than half the time that it would take to fix wood. Those are what might be called the good qualities of iron. Now, it has one—only one—defect that I know of: it is what is called a good conductor—it conducts away heat from the interior of a building. It has been said that the Advisory Board should have considered a lining of some description, as iron would conduct away the heat. Now, that suggests to me the question, What heat is there to conduct away? Is there any heat in those hutments? Remove the human beings from within and the temperature is exactly that of the outside air. The temperature of any building built of thin substance such as this is, with any openings to the outside atmosphere, must be the temperature of the outside atmosphere if there is no heating within. Who will suggest that we should heat a building with human beings? I can understand that we should put a non-conducting substance on a hot-water pipe, but I cannot understand that we should put a non-conducting substance on a cold-water pipe. These huts are in the position of a cold-water pipe. Is it logical to use non-conducting substances in a building that has no heat within? The Board considered this matter, and thought it would be a shameful waste of public money to put a non-conducting substance in a building with no heat within. It, of course, is asserted that human beings heated the buildings. Any one learning the first principles of hygiene or ventilation knows that that is the very thing that must be immediately removed. The heat consists of the hot breath and emanations from the skin—of polluted matter. That is the heat that arises from human beings sleeping in a hut. It should be removed immediately: it should not be conserved. When I was before you previously I was asked this question, Would I think it a hardship to sleep in one of these huts, and I said, Not at all. Now, had I been asked whether I considered it a hardship to sleep in a tent, I should have said that I certainly did. I have had experience of sleeping in military tents. In my younger days I was a Volunteer for many years, and slept in military encampments. I know what is done in a tent. I have all my life been to a certain extent a lover of fresh air, and I know that young men in a tent in cold weather close it up. The last thing done as a rule is to lace up the door if the night is cold. Some one in the tent may protest, but the man at the door will not allow the tent-door to be opened. He will, in more or less polite language, say he will see the fellow who wants the ventilation in a hot place before he will open the tent; and so they allow the temperature of the tent to rise. It does rise. How does it rise? The tent cannot give off any heat itself: the bodies give off the heat. The hot air accumulates, and in the morning the temperature is up. It was not so in the huts—the ventilation was too good. It may be said that the iron conducted away part of the heat. Doubtless it did. But it is the case that the temperature of the huts remains the outside temperature, practically. It cannot rise if there is any ventilation worth speaking of; and with the extensive ventilation that there is from the eaves of these huts no sensible person for a moment would say that the temperature could rise—in fact, the men stated that the chief complaint they have to make about the huts is that it is too cold—there is too much fresh air.