

111. In the absence of any definite record as to the areas occupied by successive reinforcements, we can only accept the data obtained by the engineer from inquiries made at the camp. From this it appears that, for instance, the Fifth Reinforcements (Mounted and Infantry) occupied about 4 acres, which, for 2,300 men, corresponds to a density of 575 men to the acre.

112. Firth, in his work on "Military Hygiene," says, "You must not have more than 330 men for an Infantry battalion, and 262 if an Infantry brigade, to an acre." Authorities.

It is clear from this that the number of men recommended by the British Army medical authorities was exceeded in this instance. Blake Knox, in his manual "Military Sanitation and Hygiene," 1911, at page 88, says, "As it is impossible to move a standing camp frequently to a fresh site, tents should be struck once a week and pitched loosely on a fresh site for a few hours to allow of the vacated sites being thoroughly aired and cleaned." At page 86 he says, referring to tent intervals, "There should be 10 yards clean ground left between units, 3 yards between companies, 1 yard between squadrons, and 1 yard *between the pegs* of each tent." Also, on page 86 he says, "In standing camps the tents should be pitched at intervals of one and a half diameters apart."

From the evidence of the General Officer Commanding it appears that with regard to the tent-spacing it was desired to conserve space for the parade-grounds, and he stated that the outside pegs of tents were almost meeting. This confirms the statement by Dr. De Lautour that, having regard to the rules laid down, the tents were too compressed, and that in some cases the tent-pegs were overlapping. The tents used were the ordinary bell tents, in which fifteen men are placed in England. At Trentham only eight men occupied each tent, so that it does not appear that any individual tent was overcrowded at any time. It is obvious, however, that there must have been about twice as many tents to the acre at Trentham as in the case of a British camp.

113. All the evidence shows that the tents were undoubtedly pitched closer than is the recognized rule for standing camps, and that in that respect, at any rate, the claim that the camp was laid out on the most up-to-date lines cannot be sustained. Tents pitched too close together.

One very obvious disadvantage of the tents being spaced too closely is that there is less space for the night pails to be placed between the tents, and they are therefore in closer proximity to the occupants of the tents, with the contingency of the narrower space of ground between becoming polluted.

114. We do not find it established as essential in all circumstances that the whole camp should be moved from time to time, or that the individual tents should be pitched on the intervening spaces, provided the tents and floor-spaces are regularly aired and cleaned. The evidence shows that this was the practice at Trentham. Airing of tents and floor-spaces.

(b.) *Hutments.*

115. Much evidence was taken in regard to the hutments. They are an important factor in regard to the health and comfort of the troops, and require detailed treatment.

Towards the end of December, 1914, the Headquarters Staff decided that because of the great wear-and-tear and consequent expense of having troops in tents, the depletion of the stock of tents by an issue taken with the Expeditionary Force, and the probability that Trentham would become a more or less permanent camp, it was desirable to provide a permanent form of hutment. Plans were drawn up by the draughtsman attached to headquarters for a detached hut to accommodate fifty men. These plans were submitted to the Hon. the Minister of Defence, and by him to a Medical Board consisting of Drs. Elliott, Holmes, and Purdy. This Board, on the 11th January, approved of one of the plans submitted, having a floor-space of 36 ft. per man, but suggesting that this floor-space was not quite sufficient. The hut as so recommended provided for fifty men, although the text-books indicate twenty-four to thirty men per hut, with a floor-space of from 40 ft. to 50 ft. per man. A cablegram received by the Defence authorities in reply to a recent inquiry (in July) for particulars History of hutments.